



BIRMINGHAM CITY
University

**MEDIATING EFFECTS OF ENTREPRENEURSHIP ECOSYSTEMS ON
ENTREPRENEURSHIP SKILLS AND PEDAGOGY: A COMPARATIVE
STUDY BETWEEN THE UNITED KINGDOM AND UGANDA.**

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A. ABSTRACT

Entrepreneurship Education (EE) plays a crucial role in equipping students with the skills, mindset, and competencies necessary for success in dynamic business environments. However, despite its growing prominence in higher education, there remains limited understanding of how entrepreneurship ecosystems influence the selection and effectiveness of EE pedagogies, as well as the development of entrepreneurial skills.

This research addresses this gap by examining the interplay between entrepreneurship ecosystems, EE pedagogical approaches, and entrepreneurship skills development within higher education institutions. Using a comparative case study approach, the study investigates two institutions – Birmingham City University (BCU) Business School in the UK and Makerere University Business School (MUBS) in Uganda – to explore how ecosystem dynamics shape EE methodologies and skills acquisition. While a quantitative survey provided foundational insights, the study primarily relied on qualitative focus group interviews with students and lecturers, offering a multi-layered, in-depth analysis of how institutional and external ecosystem factors mediate EE outcomes.

Findings reveal that while EE pedagogies are typically categorised into curricular, co-curricular, and extracurricular approaches, their classification and application remain ambiguous, with misalignment between student and lecturer perceptions, and pedagogical preferences. Additionally, the study identifies two critical entrepreneurship skills – risk-taking and networking – that are not explicitly included in existing EE frameworks, such as the QAA (2012, 2018) guidelines but are increasingly essential for entrepreneurial success. Furthermore, the research introduces the Digital Landscape as a missing, yet critical, domain in Isenberg’s (2010) entrepreneurial ecosystem model, emphasising the role of ICT, social media, and digital governance in shaping EE experiences and opportunities. The study also highlights the role of culture, community and family in entrepreneurship skills development.

To address these insights, the study proposes the Adaptive Framework for Entrepreneurship Pedagogy – a comprehensive model that integrates entrepreneurial ecosystems, EE methodologies, and skill development strategies into a unified approach. The framework advocates for greater industry-academic collaboration, experiential learning, customised education pathways, and the integration of digital tools into EE.

This research contributes to both theory and practice by expanding existing entrepreneurship ecosystem models, redefining entrepreneurship skills development, and offering a structured policy and pedagogical framework for higher education institutions. The study concludes with recommendations for educators, industry stakeholders, and policymakers, emphasising the need for more responsive, digitally integrated, and ecosystem-driven EE strategies.

B. DEDICATION

I dedicate this to my family, especially my wife – Dr. Marilyn Esther Musinguzi Aguma. Thank you for your unwavering spiritual and moral support, and for managing our family during my extended absences.

To my children – Caitlin Aguma, Dashiell Aguma, Ngonzi Aguma, Manzi Aguma and Elaina Ninsiima – *“One cannot pour from an empty cup”*. Though this journey often took me away from you, know that every step was taken with you in mind. I hope this achievement inspires you to pursue your dreams passionately, with purpose and unwavering resilience – always remembering to nurture yourselves first, before going out to change the world.

To my late mother – Vasta Bagyenzi. Despite her intelligence and potential, she was unable to continue her studies after my birth, going on to become a mother of 5 boys and 2 girls. Her story has been a constant source of motivation to persevere, even when the journey seemed impossible. As the first PhD holder in the wider family of the late Rev. Nasaneiri Bampabura, I hope I have made you proud mother. Continue to Rest in Peace.

Finally, achieving a Doctor of Philosophy is considered a pinnacle of academic success, representing the highest level of scholarly accomplishment. To provide some context, by the time this PhD was completed, public universities in Uganda – a country with an estimated population nearing 50 million – had awarded just 1,025 PhDs between 1970 and 2020. When including degrees from private universities, the total number of PhD holders in the country is estimated to be between 2,000 and 3,000. Being among the top 0.006% of the educated elite in my home country is an honour I do not take lightly. I credit this achievement not to my own abilities, but to the Grace of God, without which, this achievement would not have been possible. I am especially grateful for the many "destiny helpers" He placed in my life, who played a crucial role along this long journey.

TO GOD BE THE GLORY!

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D. DECLARATION OF AUTHORSHIP

1. I, Dennis Byaruhanga Aguma, confirm that the thesis submitted is entirely my own work and based on my own research; that all sources used are appropriately acknowledged and that where the words of others are used these are clearly placed in quotation marks.
2. This work has not been submitted in any previous application for a degree at this or any other institution. Where I have drawn upon the work, ideas, or writings of others, this has been clearly acknowledged in accordance with standard academic practice.
3. I confirm that this thesis complies with Birmingham City University's regulations on plagiarism and ethical research conduct.

Dated: 15/10/2024

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H. LIST OF ABBREVIATIONS

| NO | ABBREVIATION | IN FULL |
|----|--------------|---|
| 1 | AfBC | African Business Chamber |
| 2 | AI | Artificial Intelligence |
| 3 | BCU | Birmingham City University |
| 4 | CJRS | Coronavirus Job Retention Scheme |
| 5 | CoBAMS | Makerere University College of Business and Management Sciences |
| 6 | ECSB | European Council for Small Business and Entrepreneurship |
| 7 | EDP | Uganda Entrepreneurship Development Programme |
| 8 | EE | Entrepreneurship Education |
| 9 | EEco | Entrepreneurship Ecosystems |
| 10 | EEUK | Enterprise Educators UK |
| 11 | ESIP | Education Strategic Investment Plan |
| 12 | ESSP | Education Sector Strategic Plan |
| 13 | EU | European Union |
| 14 | GAP | Graduate Apprenticeship Programme |
| 15 | GDP | Gross Domestic Product |
| 16 | GEDI | Global Entrepreneurship and Development Index |
| 17 | GEM | Global Entrepreneurship Monitor |
| 18 | HEEG | Higher Education Enterprise Group |
| 19 | HEFCE | Higher Education Funding Council for England |
| 20 | HEI | Higher Education Institution |
| 21 | ICSB | International Council for Small Business |
| 22 | ICT | Information and Communication Technology |
| 23 | IMF | International Monetary Fund |
| 24 | ISBE | Institute for Small Business and Entrepreneurship |
| 25 | LDC | Low Developed Country / Least Developed Country |
| 26 | LDC | Low Developed Countries |
| 27 | LEP | Local Enterprise Partnerships |
| 28 | LSE | London School of Economics |
| 29 | MBA | Master of Business Administration |
| 30 | MIT | Massachusetts Institute of Technology |
| 31 | MoFPED | Ministry of Finance, Planning and Economic Development |
| 32 | MOOCs | Massive Open Online Courses |
| 33 | MUBS | Makerere University Business School |
| 34 | NCBS | National College of Business Studies |
| 35 | NCDC | National Curriculum Development Centre |
| 36 | NCEE | National Centre for Entrepreneurship in Education |
| 37 | NDP | National Development Plan |
| 38 | NEB | National Enterprise Board |
| 39 | NGO | Non-Governmental Organisation |

| | | |
|----|----------|---|
| 40 | NSS | National Student Survey |
| 41 | NWDA | North-West Regional Development Agency |
| 42 | OECD | Organisation for Economic Co-operation and Development |
| 43 | PSFU | Private Sector Foundation of Uganda |
| 44 | QAA | Quality Assurance Agency |
| 45 | QUANGO | Quasi-Non-Governmental Organisation |
| 46 | R&D | Research and Development |
| 47 | RBV | Resource-Based View |
| 48 | RDA | Regional Development Agency |
| 49 | SAP | Structural Adjustments Programme |
| 50 | SEC | Science Enterprise Challenge |
| 51 | SEEDA | South East England Development Agency |
| 52 | SEISS | Self-Employment Income Support Scheme |
| 53 | SFEDI | Small Firms Enterprise Development Initiative |
| 54 | SMEs | Small and Medium-sized Enterprises |
| 55 | STEM | Science, Technology, Engineering and Mathematics |
| 56 | STEP | Shell Technology Enterprise Programme |
| 57 | TEA | Total Entrepreneurial Activity |
| 58 | TEC | Training and Enterprise Council |
| 59 | UBEE | University-Based Entrepreneurial Ecosystem |
| 60 | UCE | University of Central England |
| 61 | UCEB | University of Central England in Birmingham |
| 62 | UCSCU | Uganda Cooperative Savings and Credit Union Limited (UCSCU) |
| 63 | UDB | Uganda Development Bank |
| 64 | UIRI | Uganda Industrial Research Institute |
| 65 | UK | United Kingdom |
| 66 | UKSEC | UK Science Enterprise Centres |
| 67 | UNCDF | United Nations Capital Development Fund |
| 68 | UNDP | United Nations Development Programme |
| 69 | UPE | Universal Primary Education |
| 70 | USA / US | United States of America |
| 71 | USABE | United States Association for Small Business and Entrepreneurship |
| 72 | USE | Universal Secondary Education |
| 73 | VC | Venture Capital or Venture Capitalist |
| 74 | WEF | World Economic Forum |
| 75 | WIPO | World Intellectual Property Organization |
| 76 | YLP | Youth Livelihood Programme |

1. INTRODUCTION

1.1 RESEARCH BACKGROUND

The concept of entrepreneurship, since its definition by Cantillon (1930), has undergone significant evolution and is now widely regarded by both practitioners and researchers as essential for socio-economic growth and stability (Briggs, 2009; Orwa, 2012; Autio et al., 2014; Bacigalupo et al., 2016). It plays a pivotal role in achieving sustainable development goals (United Nations, 2012), promoting inclusive economic growth (Hall et al., 2010; Filser et al., 2019). It fosters innovation, drives productivity growth, enhances competitiveness, and creates opportunities for startups and SMEs in both local and global markets (IMF, 2018; World Bank, 2020; Dieppe, 2021). From a political perspective, entrepreneurship is viewed as a critical mechanism for addressing societal challenges such as unemployment, which, if left unaddressed, could escalate into political instability (European Commission, 2016; OECD, 2022).

In alignment with these global perspectives, many countries have prioritised entrepreneurship programmes as a strategic component of their economic development agendas (Young, 2014; Preedy and Jones, 2015). As a result, Higher Education Institutions (HEIs) have also intensified their focus on EE to foster entrepreneurial behaviours, attitudes, and competencies (Matlay and Carey, 2007; Bozward et al., 2022). However, the objectives, formats, and pedagogical approaches employed by most universities vary significantly (Gartner and Vesper, 1994; De Wit et al., 2021; Margison, 2022), leading to ongoing debates regarding the effectiveness of various entrepreneurial education methods (Nabi et al., 2017; Boldureanu et al., 2020; Ahmed et al., 2020; Tartavulea et al., 2020; Hagg and Gabrielsson, 2020; Ratten and Usmanij, 2021; Boldureanu et al., 2021).

In parallel to the above debates is the role of the environment in which students are based, and the extent to which that environment affects the choice and effectiveness of various pedagogical approaches. This research contributes significantly to these debates by examining the mediating effects of entrepreneurship ecosystems on entrepreneurship skills and pedagogy, through a comparative study between the UK and Uganda.

1.2 RATIONALE FOR THE STUDY

A. ENTREPRENEURSHIP AND ECONOMIC DEVELOPMENT

The significance of entrepreneurship to economic growth, particularly regarding the generation of goods and services, job creation, and government revenues, is well-documented and widely acknowledged (OECD, 2008; World Bank, 2023). Joseph Schumpeter, in his seminal work *The Theory of Economic Development* (1934), positioned the entrepreneur as a central figure in economic advancement. Schumpeter introduced the concept of "creative destruction," illustrates how innovative entrepreneurs disrupt incumbent firms by introducing novel combinations, thereby shifting demand and supply curves and catalysing new phases of economic growth (Schumpeter, 1934; Caree and Thurik, 2010). Startups, due to their agility, flexibility, and inherent innovative capacities, are increasingly able to outperform larger, more established firms. This ability to swiftly address market gaps and introduce disruptive innovations has transformed industries globally (Vonoga, 2018; Ressin, 2022; Sehnem et al., 2024; Khuan et al., 2023).

Recognising this, many governments, especially in the Western world, have adopted policies promoting deregulation and privatisation to foster the establishment and competitiveness of small enterprises, thereby enhancing momentum within the startup and SME sectors (OECD, 1995; IMF, 2022; World Bank, 2023). Consequently, as of early 2023, Small and Medium-sized Enterprises (SMEs) represented 99.9% of the UK business population, totalling to approximately 5.6 million businesses [Figure 1 (GOV.UK, 2024) and Figure 2 (EU, 2024)]. These SMEs accounted for three-fifths of employment (around 16.7 million jobs), with small businesses (0-49 employees) employing 13.1 million individuals, constituting 48% of total employment (GOV.UK, 2024; FSB, 2024). Furthermore, SMEs contributed nearly half of the private sector turnover, estimated at £2.4 trillion, with small businesses generating £1.6 trillion (36%) of this figure (GOV.UK, 2024).

This pattern is not unique to the UK. It is consistent across other OECD nations, and developing countries alike Uganda (UNCTDA, 2024; Klepper, 1992; Acs, 1990, 1992; Acs and Audretsch, 1987, 1990, 1993, 1994; Audretsch, 1995; Parker, 2005; Praag and Versloot, 2007).

Figure 1: Contribution of different UK-sized businesses to the total population, employment, and turnover, the start of 2023 (GOV, 2024)

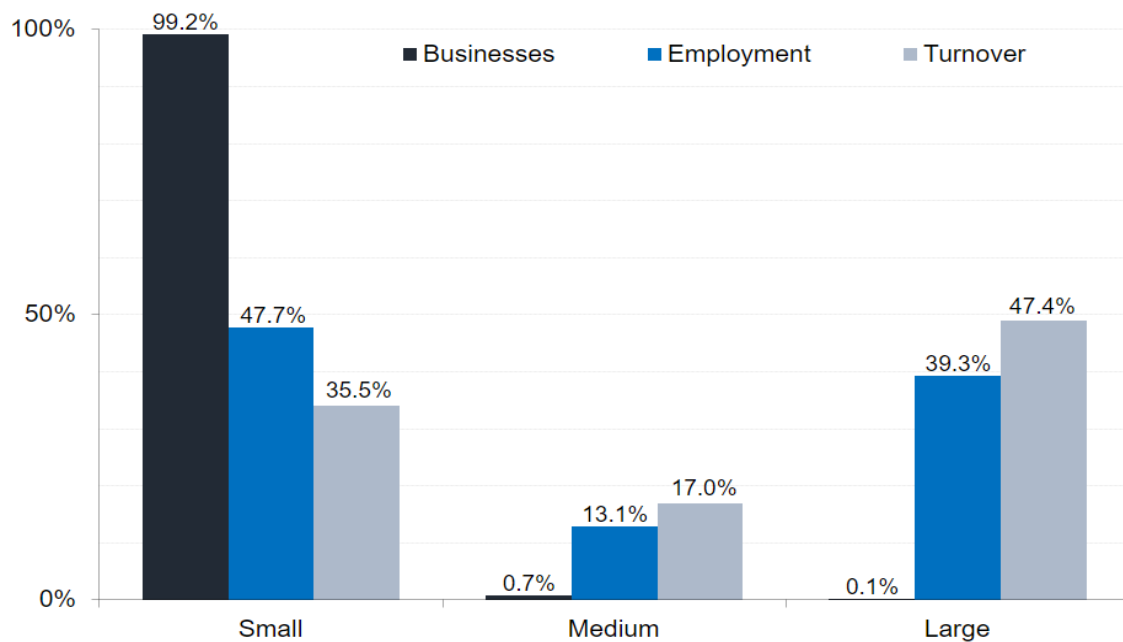
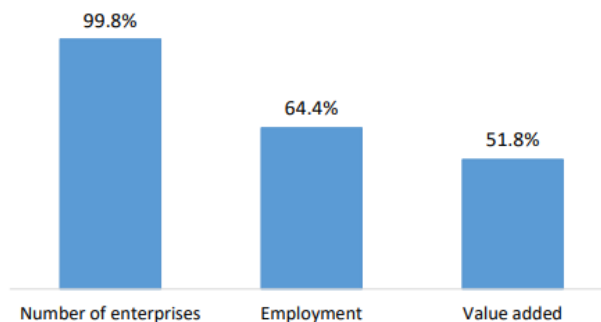


Figure 2: Share of EU-27 SMEs in the number of enterprises, share of employment and value-added in 2022 (EU, 2024)



The role of entrepreneurship is not limited to industry. Increasingly, it extends to academic institutions, particularly in regions where university spin-offs substantially contribute to local and national entrepreneurship ecosystems (Harhoff, 1999; Shane, 2004). Alumni from prestigious institutions such as the Massachusetts Institute of Technology (MIT), Harvard University and Stanford University have established numerous enterprises, created millions of jobs and significantly bolstered both local and national economies (Roberts and Eesley, 2009; Eesley and Miller, 2011). Similar entrepreneurial outcomes have been observed at Iowa State University and Twente University highlighting the profound impact of Entrepreneurship Education (EE) on fostering new ventures (Jolly et al., 2009; Rowe, 2005). This trend is not unique to the USA. It is mirrored across the developed world, particularly in OECD countries, where university entrepreneurial ecosystems are robust and thriving

(Charney and Libecap, 2000; Nilsson, 2012; Audretsch et al., 2007; EU, 2018). Given the undeniable contribution of entrepreneurship to economic development and societal advancement, and the role of education establishments in educating the masses, it is imperative to critically examine how entrepreneurship is taught to ensure that students are effectively equipped with the necessary entrepreneurial competencies.

B. SKILLS MISMATCH BETWEEN GRADUATES AND INDUSTRY

Historically, indigenous communities relied on informal education to transmit knowledge across generations (Oroma and Guma, 2018). However, factors such as industrialisation catalysed a shift toward formal, hierarchical education systems, segmented into primary, secondary, and higher education institutions designed to train the workforce at the time. This arrangement has hardly changed.

Given that entrepreneurial traits can be acquired and cultivated (Reynolds et al., 1994; Dietrich, 1999; Shepherd, 2004; Shane, 2004; von Graevenitz et al., 2010; Fayolle and Gailly, 2015; Aldrich, 2016), the role of education in shaping entrepreneurial capacities remains pivotal. Yet, recent years have witnessed mounting concerns regarding the discrepancy between the skills imparted by universities and those required by an ever-evolving job market. This "skills mismatch" presents a significant challenge in modern education systems (Handel, 2003; McGuinness et al., 2017; McGuinness et al., 2018), particularly in fostering entrepreneurship skills. Numerous studies and reports highlight this gap within the entrepreneurial context (Conniffe and Kennedy, 1984; Velsor and Wright, 2012; Abaho, 2013; Bessen, 2014; Arum and Roksa, 2014; Calonge and Shah, 2016; McKinsey and Company, 2017). For example, the World Economic Forum's Future of Jobs Report (2020; 2023) reveals that nearly half of employers identify skills mismatches as a significant barrier to recruitment. Similarly, the European Commission's Skills Mismatch in Europe Report (2018) underscores the persistent disjunction between graduates' skills and employer expectations across sectors (Brunello and Wruuck, 2019). This mismatch is especially pronounced in entrepreneurship, where the field's dynamic nature demands agility, innovation, and adaptability – qualities often underrepresented in traditional university curricula (QAA, 2012; 2014; EU, 2016). In EE, this skills deficit hampers graduates' abilities to identify and exploit entrepreneurial opportunities, manage risks and uncertainties, and

innovate in fast-paced environments – all core competencies for successful entrepreneurship (Gibb, 2002; Nabi et al., 2017).

The broader implications of this skills mismatch extend beyond individual graduates to the economic and societal levels, leading to inefficient human capital utilisation, suppressed productivity growth, and diminished innovation capacity, ultimately stifling economic development and competitiveness (OECD, 2019; 2021; United Nations, 2024). By exploring effective pedagogical approaches and examining ecosystem-industry dynamics, this research informs evidence-based interventions that enhance the relevance and efficacy of university EE programs, aligning them more closely with industry demands and expectations.

C. THE NEXUS BETWEEN EE AND ENTREPRENEURSHIP ECOSYSTEMS

In parallel to the above debates on the effectiveness of different entrepreneurial education methods is the role of the environment in which students are based, and the extent to which that environment affects the choice and effectiveness of various pedagogical approaches. This is because entrepreneurial behaviour is "*an individual level phenomenon, which occurs over time*" (Carter et al., 2003) – meaning that cumulative exposure to events surrounding the entrepreneurial process, and "*the manner in which these events are processed, serve to form the entrepreneur and influence the development of an entrepreneurial mind-set*" (Morris et al., 2012). This point is further illuminated by Bandura and Walters (1977) who – based on their concept of Social Learning Theory – argue that human behaviour is a function of one's environment. Yet, traditional EE approaches have often neglected the broader contextual factors that shape entrepreneurial behaviour and attitudes (Rae and Carswell, 2001; Fayolle et al., 2006; Pittaway and Cope, 2007; Winkle, 2013; Vanevenhoven, 2013; Blenker et al., 2014; Fayolle et al., 2018; Schmutzler et al., 2019), until recently (Nabi et al., 2017; Welter and Baker, 2021).

In the context of entrepreneurship, the above-mentioned external environment is generally referred to as the Entrepreneurship Ecosystem (EEco). Originally drawn from ecological systems, the term and concept of entrepreneurship ecosystems have only recently evolved into a central focus of entrepreneurship research (Moore, 1993; Cohen, 2006; Isenberg,

2010, 2011; Hwang, 2012; Spigel, 2015, 2017; Stam, 2015; Brown and Mason, 2017; Berger and Kuckertz, 2016). Although defined by various scholars in different ways, an entrepreneurship ecosystem nonetheless encompasses a network of interconnected actors and resources committed to fostering sustainable development and a sustainable business environment through the facilitation of new ventures. Within the entrepreneurship ecosystem framework, Higher Education Institutions (HEIs) constitute a critical component that plays a significant role in shaping entrepreneurial talent and literally driving the ecosystem's dynamism (Guerrero and Urbano, 2014). By situating research on EE within entrepreneurship ecosystems, this study sought to gain insights into the multifaceted interactions among HEIs and other ecosystem actors and establish how EE initiatives are influenced by wider ecosystem dynamics.

Additionally, recent studies highlight the necessity for further research into the intricate dynamics of entrepreneurial ecosystems across diverse geographical and cultural contexts, particularly concerning their interface with and impact on entrepreneurial education (EE). Notable findings include:

- **Cultural Diversity and Innovative Entrepreneurship:** Prenzel et al. (2024) analysed 140 European regions and discovered that higher cultural diversity correlates with a greater propensity for entrepreneurs to adopt innovative business strategies. This highlights the importance of understanding how cultural contexts influence entrepreneurial behaviour.
- **Diversity, Innovation, and Entrepreneurship:** Karlsson et al. (2019) reviewed existing literature and emphasised the need to develop "the economics of spatial diversity" to better comprehend the dynamic relationships between diversity, innovation, entrepreneurship, and regional development.
- **Culture in the Entrepreneurial Ecosystem:** Donaldson (2020) provided a conceptual framework focusing on culture within entrepreneurial ecosystems, suggesting that cultural factors significantly influence the effectiveness and characteristics of EEco.
- **Cultural Flexibility and Entrepreneurship:** A recent study published in the *Strategic Entrepreneurship Journal* explored how the flexibility of cultural norms ("tight" vs.

"loose") shapes entrepreneurial ecosystems. The research indicates that cultural flexibility can significantly impact the rate of new firm formation across various regions (Valentina and Amit, 2024).

These studies collectively highlight the critical role of cultural and geographical diversity in shaping entrepreneurial ecosystems and underscore the importance of exploring avenues for tailoring entrepreneurial education to these diverse contexts.

D. DISPARITY IN RESEARCH OUTPUTS

Over the past 50 years, several key authors have significantly contributed to the field of EE, shaping its theory, practice, and pedagogy. It is impossible to list them all. Notably, however, some, such as William B. Gartner and Karl H. Vesper deserve mention for their pioneering work in understanding and conceptualising EE programmes. Their seminal paper, *"Experiments in EE: Successes and failures,"* published in the Journal of Business Venturing in 1994, provided a comprehensive typology of EE programmes, categorising them based on their objectives, methods, and outcomes. With data meticulously collected over 20 years, this classification laid the groundwork for further research and evaluation of EE initiatives worldwide (Gartner and Vesper, 1994).

Equally influential was Howard H. Stevenson, whose work on entrepreneurship and management at Harvard Business School significantly shaped the field. In 1983, Stevenson emphasised the importance of teaching entrepreneurship as a management discipline and advocated for a practical, action-oriented approach to EE. His book *New Business Ventures and the Entrepreneur* remains a seminal text in the field of EE (Stevenson, 1983).

Also notable is Donald F. Kuratko, who made significant contributions through his research and publications that focused on the integration of entrepreneurship into the traditional academic curricula, and the development of innovative teaching methods to foster entrepreneurial mindsets and skills among students. His numerous books and articles have had a profound impact on EE globally (Kuratko, 2005, 2015, 2024). He is particularly credited for highlighting the need to integrate entrepreneurship into the broader curriculum (Kuratko, 2015).

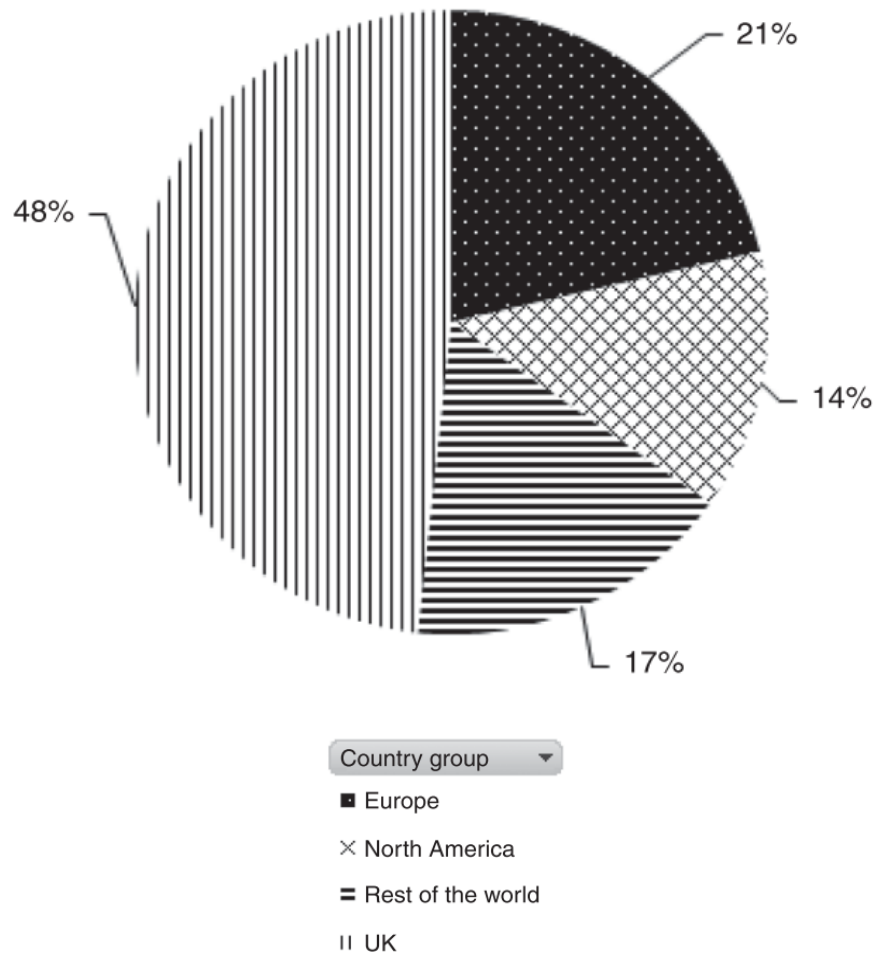
These key authors, among many others at the time, played instrumental roles in advancing EE as a distinct field of study and practice. More recently, however, other authors such as Fayolle (2013), Gibb (2011), and Henry (2019) have also made significant advancements and contributions to EE. Fayolle, for instance, emphasised experiential learning in EE (Fayolle, 2013), while Gibb advocated for learner-centred approaches and the importance of practical skills development (Gibb, 2011). Henry's work, on the other hand, emphasised the importance of inclusive EE, particularly for marginalised groups (Henry, 2019).

These are a few of the numerous noteworthy authors in the field of EE. However, while the above-cited scholars have significantly enriched our understanding of EE, their work is primarily based in Western settings and publications. To the extent that entrepreneurship is considered a behaviour (Hofstede, 1980) and that behaviour can be developed in relation to one's environment (Bandura, 1977; Lewin, 1951), it is disappointing to note that there remains a dominance of researchers and empirical material in EE emanating from the West, with limited attention paid to the experiences and perspectives of entrepreneurs in developing countries. In their recent study, Klarin et al. (2021) conducted an analysis on the geographical distribution of research in the field of international business education (IBE). Their findings revealed a significant concentration of research activities in developed countries, with substantial contributions from nations such as the United Kingdom, United States, Australia, Canada, and various other Western European countries (Klarin et al., 2021). This dominance is visually depicted in Figure 3 below, where shading intensity corresponds to the volume of publications associated with each country. Indeed, these economically advanced nations emerge as prominent players in the landscape of International Business Education (IBE) research. The Western studies aside, the study also brings to light a noticeable gap in the literature concerning research conducted in Least Developed Countries (LDCs) and regions like Eastern Europe, the Middle East, South America, specific parts of Asia, and of course Sub-Saharan Africa (Klarin et al., 2021)

The above observation is corroborated by other studies, including Omeihe and Harrison (2022) and Mason and Brown (2014), who highlight the dominance of European researchers and empirical literature in EE, with limited attention given to the experiences and perspectives of entrepreneurs in developing countries. Additionally, Blenker et al. (2014)'s research reveals that while a modest 17% of EE research originates from the rest of the

world, the bulk of this percentage disproportionately represents countries outside the African continent, including Asia, Australia, and other regions (Figure 3).

Figure 3: Disparity in research publications on Entrepreneurship Education (Blenker et al., 2014).



The above publication disparities are not limited to Entrepreneurship Education. Cao and Shi (2021), with input from a review panel comprising experts from academia and industry, conducted a comprehensive review of more than 900 theoretical and empirical papers on Entrepreneurship Ecosystems, where a similar disparity was also reported. Their analysis revealed two key things; first, a trend from both contexts, highlighting the early stage of development of the concept of entrepreneurial ecosystems in each of these regions (Roundy, 2017); secondly, a scarcity of empirical studies that focus on emerging economies as research contexts (Cao and Shi, 2021). While the trends in publications are almost similar, the number of publications on entrepreneurial ecosystems in advanced economies (Figure 4) nearly doubles that from emerging economies (Figure 5) (Cao and Shi, 2021).

Figure 4: Trends of journal publications on entrepreneurial ecosystems from advanced economies (Cao and Shi, 2021).

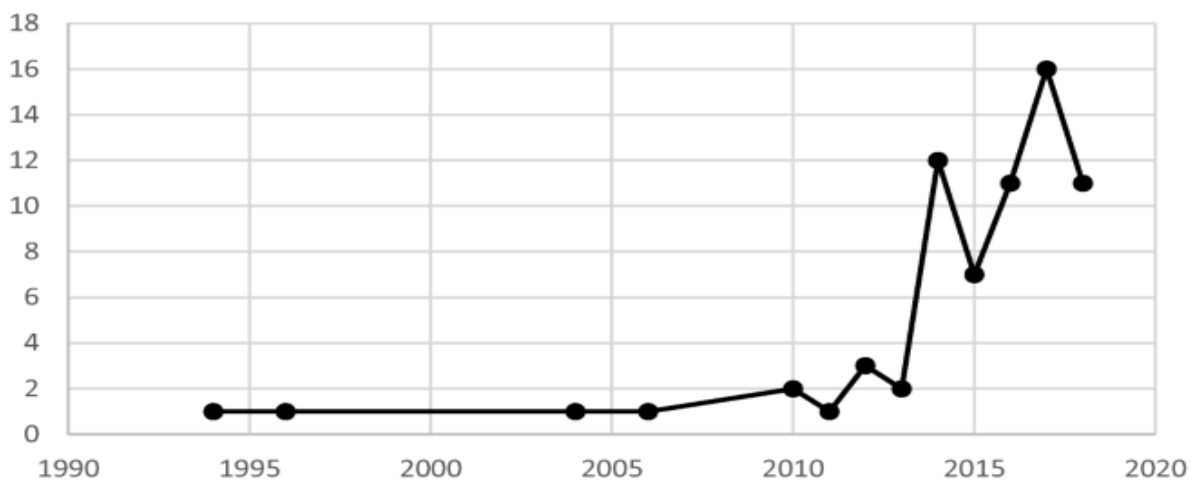
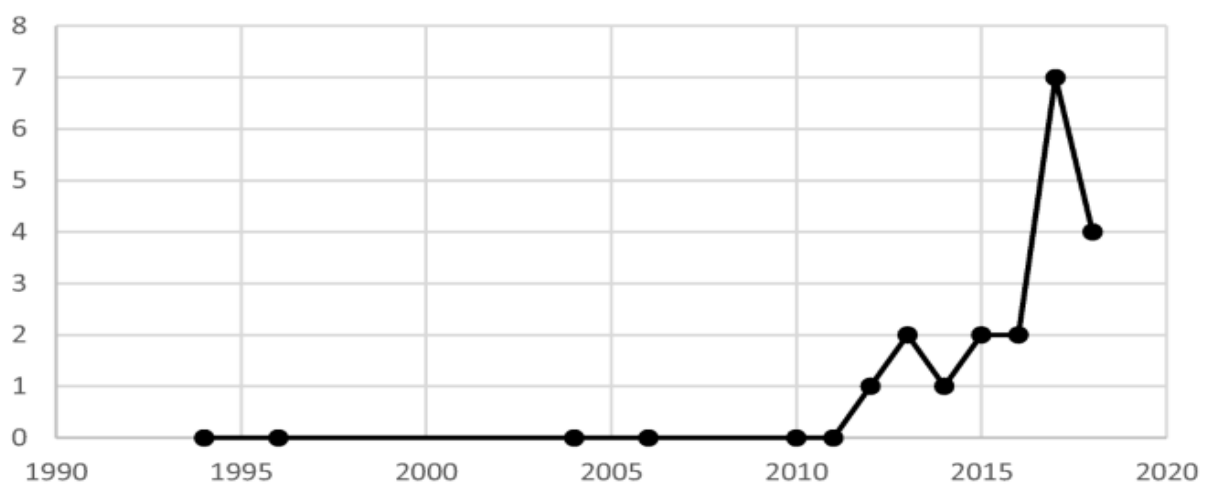


Figure 5: Trends of journal publications on entrepreneurial ecosystems from emerging economies (Cao and Shi, 2021).



These gaps don't only limit the understanding of the complex dynamics of entrepreneurship but also restrict the practical application of existing frameworks and strategies to address the unique challenges that might be faced by businesses operating in these emerging markets (Cao and Shi, 2021).

This research bridges this gap by conducting a comparative analysis between the UK and another non-Western country, in this case Sub-Saharan Africa, where the disparity is most acute. It offers an opportunity to incorporate perspectives from a non-Western context and ultimately inform the development of educational curricula and policies relevant to an increasingly interconnected global entrepreneurial landscape.

1.3 RESEARCH AIMS AND OBJECTIVES

A. PURPOSE STATEMENT

Despite considerable research in comprehending the intricacies of Entrepreneurship Education (EE) and Entrepreneurship Ecosystems (EEs), numerous debates, trends, patterns, and gaps persist within the literature. In EE, scholars increasingly advocate for experiential and action-oriented learning methodologies, alongside calls for incorporating interdisciplinary and cross-cultural perspectives (Pittaway and Cope, 2007; Gibb, 2011; Rodrigues, 2023). However, there remains a lack of consensus on both the most effective pedagogical approaches for teaching entrepreneurship and the appropriate level of standardisation in curricular frameworks (Pittaway and Cope, 2007; Gibb, 2011; Lackéus, 2015).

Similarly, in the field of entrepreneurship ecosystems, there is growing recognition of the profound influence exerted by traditional drivers such as access to finance and supportive policy frameworks (Isenberg, 2010; Stam and Spigel, 2016). However, there remains a need for further research into the intricate dynamics of entrepreneurship ecosystems across diverse geographical and cultural contexts (Karlsson et al., 2019; Donaldson, 2020; Prenzel et al., 2024; Valentina and Amit, 2024) particularly concerning their interface with and impact on EE (Mason and Brown, 2014; Zahra et al., 2014).

Thus, by exploring the interplay between contextual factors within different entrepreneurship ecosystems and various educational practices therein, this research sheds light on the relationships between environmental influences and the effectiveness of EE methods in fostering entrepreneurship skills among university students.

B. RESEARCH AIM

While there is a growing body of research and debate regarding the acquisition of entrepreneurship skills (Rae and Carswell, 2001; Cope, 2011; Blenker et al., 2014), recent studies have highlighted the fragmented nature of research on entrepreneurship skills acquisition. For instance, Lin (2021) conducted a bibliometric analysis revealing that studies on entrepreneurial skills are dispersed across various themes, leading to a lack of cohesive understanding. Similarly, Padi (2022) identified inconsistencies in defining and measuring

entrepreneurial skills, further contributing to research fragmentation. Additionally, Hahn et al. (2017) noted contrasting results regarding the impact of entrepreneurship education on skill development, underscoring the need for a more unified research approach. Since entrepreneurship is considered a behaviour and given that behaviour can be developed in relation to one's environment (Fayolle and Gailly, 2005; Fayolle, Gailly and Lassas-Clerc, 2006), it is disappointing that limited attention appears to have been paid to the significance of ecosystem characteristics in influencing the choice and effectiveness of different methods of EE. Therefore, this research aims to:

Investigate how entrepreneurship ecosystems influence the choice and effectiveness of entrepreneurship education methods.

C. RESEARCH OBJECTIVES

In alignment with the above stated aim, the study, having reviewed existing literature on entrepreneurship ecosystems, EE, and entrepreneurship skills, set out to establish the extent to which these elements were interconnected. With a particular focus on the underexplored contexts of developed and developing countries (UK and Uganda respectively), the study provides insights into how diverse contextual factors can enhance or hinder the effectiveness of entrepreneurship skill-building among university students in different geographical settings. Pursuant to the stated aim, this research sought to achieve the following primary objectives:

- 1. To establish the extent to which students at the participating universities perceived themselves as entrepreneurial.**
 - *This baseline measurement was critical in understanding students' self-assessment of entrepreneurial traits and competencies, providing a foundation for evaluating the impact of EE on their skill development.*
- 2. To determine the extent to which students' entrepreneurship skills were developed through EE at the participating universities.**
 - *This objective links directly to the research aim by evaluating the efficacy of existing EE methods in fostering essential entrepreneurial skills.*
- 3. To examine how entrepreneurship ecosystems influence the selection and efficacy of EE methods at the participating universities.**

- *This objective focused on understanding how external environmental factors shape pedagogical choices and their effectiveness in cultivating entrepreneurial capabilities.*

D. KEY RESEARCH QUESTIONS

In order to fulfil the above stated objectives, this research aimed to explore the following key questions.

- i. **To what extent do students at participating academic institutions perceive themselves to be entrepreneurial?**
- ii. **How effective are the current EE methods at these institutions in developing students' entrepreneurship skills?**
- iii. **How does the entrepreneurship ecosystems influence the selection and efficacy of EE methods at academic participating institutions?**

By addressing these questions, the research provides a comprehensive understanding of the interplay between EE methods and entrepreneurship ecosystems, thereby contributing to the broader discourse on effective entrepreneurship education practices across diverse contexts.

1.4 THESIS STRUCTURE

The structure of this thesis is designed to provide a systematic and cohesive framework for exploring the complex interplay between entrepreneurship skills, EE, and entrepreneurship ecosystems. Each chapter is strategically organised to build upon the previous one, offering a logical progression of ideas and findings. A sequential mixed-methods approach is employed, combining both qualitative and quantitative methodologies to ensure a comprehensive understanding of the research questions. Below is a brief summary of what's entailed in each chapter.

Chapter One – Introduction: This chapter has set the stage by outlining the research background, rationale, and key objectives. It also introduces some of the theoretical frameworks underpinning the study, including the concept of entrepreneurship ecosystems, setting the foundation for subsequent chapters.

Chapter Two – Literature Review: This chapter offers a comprehensive exploration of existing literature, critically analysing key themes related to EE, entrepreneurship ecosystems, and entrepreneurship skills development. It concludes by identifying gaps in the current literature and justifies the need for this research, while also introducing relevant theoretical models that subsequently guide the analysis.

Chapter Three – Research Context: This chapter contextualises the study by exploring the socio-economic, cultural, and educational landscapes in which the study is based. It outlines the rationale for selecting these countries, traces the evolution of EE in both contexts, and examines the unique characteristics of their respective entrepreneurship ecosystems. The chapter also highlights cultural differences and demographic dynamics that influence entrepreneurship education and ecosystems in these regions. Essentially, it is the lens through which the entire study was done.

Chapter Four – Methodology: Here, the research design and approach are detailed, explaining the mixed-methods strategy and its suitability for addressing the research questions. This chapter elaborates on data collection methods, including surveys and focus group interviews, and discusses the analytical techniques employed, such as statistical testing and thematic analysis.

Chapter Five – Results and Findings: This chapter presents the empirical data in a structured and comprehensive manner. It begins with a summary of the findings from the pilot study, which was deployed to test and validate the research instruments; the pre-study, which offered initial insights; and the full study results, derived from focus groups. The findings are organised thematically, ensuring that results from each research domain are cohesively presented to facilitate clear comparisons and highlight key patterns and connections. This thematic structure not only provides a multidimensional perspective on the research questions, but also using triangulation, bridges the pilot and full study findings to offer a holistic understanding of the data.

Chapter Six – Discussion and Analysis: Building on the findings, this chapter offers an in-depth discussion and interpretation of the results, linking them back to the literature and

theoretical frameworks introduced earlier. It highlights the implications of the research for theory, practice, and policy.

Chapter Seven – Conclusion and Recommendations: The final chapter ties together the key insights and contributions of the study. It also provides practical recommendations for EE practitioners and policymakers and suggests avenues for future research.

Appendices: The appendices provide supplementary materials that support the main text of the thesis. These include confirmation of ethical approvals from participating institutions, demonstration of research impact. Additionally, it features various datasets (pilot and pre-study), survey instruments, focus group transcripts, and thematic analyses that underpin the research findings. The appendices are intended to offer transparency and depth to the research process, allowing readers to explore the methodologies and data in greater detail, if they so wish. In this instance, a reflections section has also been included in the appendices so as to provide insight into the author's personal learning journey, challenges encountered, offering additional transparency and context to the research process.

Table 1: Thesis Structure Overview

| Chapter | Title | Description | Page No. |
|---------|--------------------------------|--|----------|
| 1 | Introduction | Outlines research background, rationale, aims, and objectives. | 1 |
| 2 | Literature Review | Reviews key literature on EE and entrepreneurship ecosystems, identifying gaps and frameworks. | 19 |
| 3 | Research Context | Explores the socio-economic, cultural, and educational contexts of the UK and Uganda. | 118 |
| 4 | Methodology | Details research design, data collection, and analytical methods. | 150 |
| 5 | Results and Findings | Presents empirical data and initial analysis. | 198 |
| 6 | Discussion and Analysis | Interprets findings, linking them back to literature and theoretical considerations. | 287 |
| 7 | Conclusion and Recommendations | Summarises key insights, contributions, and suggests future research directions. | 306 |
| . | Bibliography | A full list of all sources consulted during the research process | 344 |
| . | Appendices | Provides supplementary materials, data, and detailed background information. | 402 |

1.5 SUMMARY OF THE INTRODUCTION CHAPTER

The purpose of this introductory chapter was to establish the foundation for the research by outlining the significance of entrepreneurship to economic development and the critical role of entrepreneurship education in cultivating entrepreneurial competencies. The chapter articulated the research aims, objectives, and questions, situating them within the broader debates on entrepreneurship ecosystems and pedagogical effectiveness. By highlighting some of the gaps in the literature on entrepreneurship education and presenting the rationale for a comparative study, the chapter sets the stage for an exploration of how diverse ecosystems influence EE methodologies and outcomes.

The subsequent chapter (Chapter 2: Literature Review), delves deeper into the theoretical frameworks and empirical studies that underpin this research. It critically examines existing literature on EE, entrepreneurship ecosystems, and skill development, identifies key gaps and areas that the research sought to investigate, and provides a comprehensive backdrop for understanding the intricate dynamics explored further in this study.

2. LITERATURE REVIEW

2.1 OVERVIEW AND APPROACH TO LITERATURE REVIEW

The previous chapter established the foundational context for this research, highlighting the significance of entrepreneurship skills (ES), entrepreneurship education (EE), and entrepreneurship ecosystems (EEco). This chapter now provides an in-depth exploration of the scholarly landscape concerning these domains, examining how each has evolved historically and theoretically, how they intersect, and why this intersection is relevant to the objectives of this study. As shown in Table 2, the chapter is structured into five main parts, each with a distinct focus.

Table 2: Structure of The Literature Review Chapter

| Part | Overview | Details |
|------|--|---|
| 1 | Overview of the Literature Review Chapter | This section introduces the literature review chapter, outlining its purpose, structure, and methodology. |
| 2 | Definition and Evolution of Entrepreneurship | Explores the evolution of entrepreneurial thought, theories, and practices over time. Provides context for understanding contemporary perspectives on entrepreneurship and justifies the chosen definition for this research. |
| 3(a) | Entrepreneurship Education: Skills | Examines the various skills and competencies associated with successful entrepreneurship. Discusses key terminologies, categorisations, and benchmarking efforts, highlighting which skills are pertinent to this research and why. |
| 3(b) | Entrepreneurship Education: Theories and Approaches | Investigates literature on entrepreneurship education, focusing on what learning is, when it occurs, and how it occurs. Explores pedagogical approaches and discusses methods for measuring entrepreneurial learning. |
| 4 | Entrepreneurship Ecosystems | Focuses on entrepreneurship ecosystems and their role in fostering entrepreneurial activity. Reviews different models, frameworks, and critiques regarding the impact of ecosystems on entrepreneurial effectiveness. |
| 5 | Summary of The Literature Review Chapter | Summarises the key findings and insights from the entire literature review. Synthesises main arguments, identifies overarching themes, and concludes by outlining the conceptual framework that will guide subsequent chapters. |

2.1.1 LITERATURE REVIEW METHODOLOGY

A. INCLUSION AND EXCLUSION CRITERIA FOR THE LITERATURE

The inclusion criteria focused on identifying scholarly articles, books, and reports that particularly addressed the intersection of entrepreneurship skills, EE and entrepreneurship ecosystems. Specifically, articles discussing the types of EE and the impact of EE on entrepreneurship were sought, initially on their own, but also within the context of entrepreneurship ecosystems. Additionally, studies examining the role of universities in fostering entrepreneurial ecosystems and the effectiveness of educational interventions in enhancing entrepreneurial capabilities were also included.

Conversely, the exclusion criteria involved filtering out sources that did not directly relate to the research focus or ones that lacked empirical evidence or scholarly rigor. This meant excluding popular press articles, opinion pieces, and non-peer reviewed sources so as to maintain the academic integrity of the review. Below is a tabulation of the inclusion and exclusion criteria (Table 3).

Table 3: The Inclusion and Exclusion criteria for the Literature Review

| INCLUSION CRITERIA | |
|---------------------------|---|
| Relevance | Literature selected for inclusion in the review had to directly address Entrepreneurship Skills, EE, entrepreneurship ecosystems, or their intersection. This criterion ensured that the literature contributed directly to the research objectives (Webster and Watson, 2002). |
| Currency | Although the review prioritised recent articles and studies to incorporate the latest research, there was no specific timeframe imposed. Instead, inclusion was based on relevance to the research topic, regardless of publication date (Miles and Huberman, 1994). |
| Quality | While other industry reports and authentic sources were also considered, peer-reviewed articles, books, and academic papers were prioritised to ensure scholarly rigor and reliability of the information presented (Webster and Watson, 2002). |
| Empirical Research | Preference was given to empirical studies that presented data, findings, and analysis related to Entrepreneurship Skills, EE and Entrepreneurship Ecosystems (Eisenhardt, 1989). |
| Diversity | Literature from various geographical locations, contexts, and perspectives was included to capture a broad understanding of the topics being researched, especially on entrepreneurship ecosystems. Also, literature from various academic disciplines was sought and included provided it was relevant to the topics being discussed. This included studies and literature from sociology, economics, management, and others (Brettel et al., 2012). |
| | |

| EXCLUSION CRITERIA | |
|-----------------------------------|--|
| Irrelevance | Literature that did not directly relate to Entrepreneurship Skills, EE and aspects of the Entrepreneurship Ecosystems was not dwelled upon so as to maintain focus and relevance (Gerring, 2004). |
| Non-peer-reviewed | Grey literature, opinion pieces, blogs, and other non-peer-reviewed sources were excluded to uphold scholarly integrity and ensure the reliability of the information (Tranfield et al., 2003). |
| Lack of Empirical Evidence | Unless expressly relevant, literature lacking empirical data, findings, or analysis was excluded to prioritise research-backed insights and evidence-based conclusions (Tranfield et al., 2003). |
| Language Barrier | Literature not available in English was excluded due to language limitations, as English proficiency is necessary for comprehending and synthesising the information effectively (Klein and Myers, 1999). This was particularly challenging for some of the literature from Uganda's education system. |

B. LITERATURE TRIANGULATION PROCESS

An Integrative Thematic Approach, as suggested by Cooper (2009) and Whittemore and Knafl (2005), was employed to synthesise findings from various sources and studies on Entrepreneurship Skills, EE and Entrepreneurship Ecosystems. This process didn't just involve identifying common themes and patterns across the literature, but also included integrating diverse perspectives, and key findings to explore the relationships between them and gain a comprehensive understanding of the research topic (Nowell et al., 2017; Cooper, 2009; Whittemore and Knafl, 2005). It followed the following process.

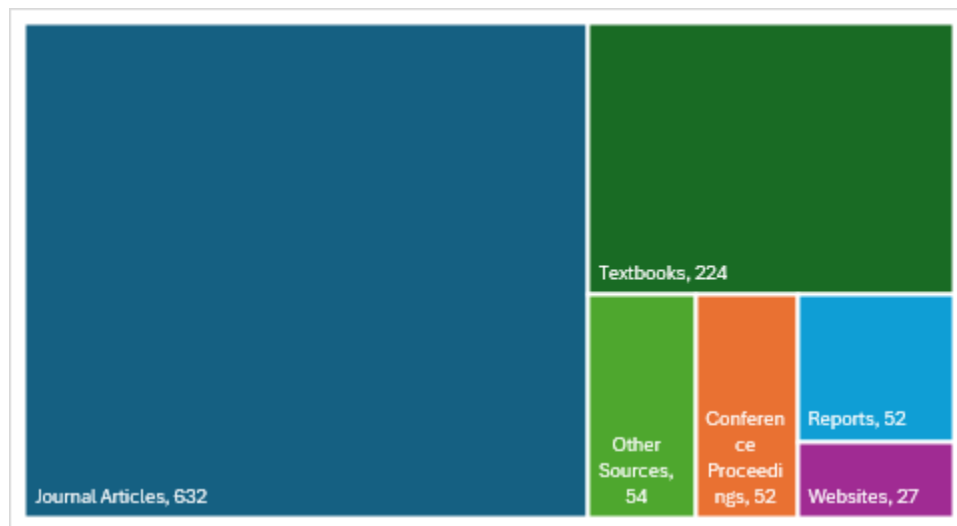
- i. **Literature Review:** This process started with conducting a literature review to gather relevant studies and sources from multiple disciplines, including entrepreneurship, education, and organisational studies. It involved integrating findings from multiple sources including academic journals, books, conference proceedings and reputable industry reports. This approach helped in addressing potential biases and limitations that are typically inherent in individual sources or methods of literature review (Gusenbauer, 2020). The process incorporated the following two frameworks.
 - **Multiple Theoretical Frameworks:** The literature identified was examined through the lens of multiple theoretical perspectives, including entrepreneurship, economics, psychology, sociology, and management.

- **Cross-Domain Analysis:** This involved comparing and integrating knowledge, theories, or findings from different fields or domains of study. This approach allows researchers to identify patterns, insights, or gaps that might not be apparent within a single domain (Frodeman, 2010), which was useful for as this research was exploring the nexus between Entrepreneurship Skills, EE and Entrepreneurship Ecosystems.

C. BIBLIOMETRIC ANALYSIS

A comprehensive literature review was conducted, mainly using Google Scholar (Google.com, 2024) and Connected Papers (Connected Papers, 2024). This resulted in the identification and review of over one thousand scholarly publications. From these, 1040 sources, including journal articles (632), textbooks (224), conference proceedings (52), reports (52), websites (27) and other sources (54) were selected as the final citations that informed the introduction, literature review, methodology, and discussion of findings chapters. This is depicted in Figure 6 below, with details of all citations presented in the bibliography section.

Figure 6: Bibliometric analysis of scholarly publications included in the study



Connected Papers, an AI-driven tool leveraging citation networks (Lui and Ali, 2022; Connected Papers, 2024), proved invaluable for author analysis and literature navigation. It streamlined the discovery of key authors, foundational papers, and study connections, enhancing the depth and efficiency of the literature review.

2.2 DEFINITION AND EVOLUTION OF ENTREPRENEURSHIP

Entrepreneurship has been a subject of academic debate for centuries, evolving alongside economic theory, technological advancements, and societal transformations. However, despite its longstanding history, entrepreneurship remains a complex and contested concept, with no single, universally accepted definition (Davidsson, 2016; Landström et al., 2022). This definitional fluidity reflects the interdisciplinary nature of the field, with perspectives emerging from economics, sociology, anthropology, and psychology (Gartner, 1985; Johnson, 1990; Shane, 2012). The diversity of definitions, and the absence of a single taxonomy presents challenges, particularly in entrepreneurship education (EE), where the lack of conceptual clarity complicates teaching methods and assessment frameworks (Holienka et al., 2016; Barugahara and Barungi, 2023). Nevertheless, this variability also offers valuable insights into the contextual and dynamic nature of entrepreneurship across different regions and time periods.

While early definitions emphasised the entrepreneur's role as a risk-taker and resource allocator (Cantillon, 1755; Say, 1803), modern interpretations have expanded to include innovation, opportunity recognition, and social change (Shane and Venkataraman, 2000; Rifkin, 2008; Nambisan, 2019). This section traces the evolution of entrepreneurship, highlighting key theoretical contributions and contextual variations, particularly in the African and Ugandan settings.

2.2.1 Thematic Evolution of Entrepreneurship Over Time

The roots of entrepreneurship can be traced to the 18th century with Richard Cantillon's seminal work, which characterised entrepreneurs as individuals who assume risk in exchange for uncertain profits (Cantillon, 1755). Jean-Baptiste Say (1803; 1836) built on this foundation by distinguishing entrepreneurs from capitalists, highlighting their role in resource coordination and economic innovation. Say's ideas later influenced classical economists, though the entrepreneur largely faded from mainstream economic discussions during the Industrial Revolution. During the Industrial Revolution, economic thought then became dominated by classical and neoclassical economists such as Adam Smith (1776), David Ricardo (1817), and Karl Marx (1867), who prioritised the roles of capital and labour

while largely neglecting entrepreneurship. Neoclassical models emphasised market equilibrium, portraying the economy as self-correcting, with little need for entrepreneurial intervention (Kirzner, 1997). This era saw a decline in explicit discussions about entrepreneurs, a trend that persisted until the 20th century.

However, the 20th century witnessed a resurgence in entrepreneurship studies, particularly with Joseph Schumpeter's (1942) concept of "creative destruction", which described entrepreneurs as agents of economic transformation who drive innovation by introducing new products, processes, and business models. Around the same time, Frank Knight (1921) distinguished between risk (which can be measured) and uncertainty (which cannot), arguing that entrepreneurs thrive in uncertain environments. Additionally, neo-Austrian economists such as Friedrich Hayek (1945), Mises (1949), and Israel Kirzner (1973; 1997) reintroduced entrepreneurship into economic discourse, stressing the entrepreneur's role in identifying and exploiting market opportunities arising from disequilibrium. This perspective gained traction in the late 20th century, particularly in discussions about market dynamics and opportunity recognition (Shane and Venkataraman, 2000).

In recent decades, technological advancements and shifting societal priorities have reshaped entrepreneurship. Scholars like Sarasvathy (2009) have introduced effectuation theory, emphasising the importance of adaptability in entrepreneurial decision-making. Simultaneously, the rise of digital entrepreneurship has transformed business landscapes, with entrepreneurs leveraging technology to create innovative ventures (Nambisan, 2019). The field has also broadened to include social entrepreneurship, where businesses address social and environmental challenges (Schaltegger, 2002; Thompson, 2002; Austin, Stevenson, and Wei-Skillern, 2006; Yunus, 2009; Burke, 2019). This expansion is particularly relevant in Africa, where entrepreneurship is increasingly viewed as a tool for addressing economic inequalities and fostering inclusive growth (Acs et al., 2018; Olomi, 2001).

2.2.2 Entrepreneurship in Africa: Contextual Variations

The evolution of entrepreneurship in Africa has been shaped by historical, cultural, and economic factors distinct from Western economies. In many African contexts, entrepreneurship is predominantly necessity-driven, where individuals engage in

entrepreneurial activities out of survival, driven by circumstances such as unemployment, economic hardship, or limited access to formal employment (Williams and Nadin, 2010; Block et al., 2015; Angulo-Guerrero, 2017; O'Donnell et al., 2021; Weber et al., 2022; Weber et al., 2022). Unlike developed economies where opportunity-driven entrepreneurship – which refers to the pursuit of entrepreneurial activities driven primarily by the identification and exploitation of market opportunities (Shane, 2000; Acs et al., 2018) – dominates, many African entrepreneurs operate out of necessity (GEM, 2015).

While this distinction is critical in understanding the challenges faced by African entrepreneurs, such as limited access to finance, weak institutional support, and infrastructural deficits (GEM, 2020; Angulo-Guerrero et al., 2017), Africa is also home to some of the most vibrant entrepreneurial ecosystems in the world. Countries like Uganda, Ghana, and Nigeria have some of the highest rates of entrepreneurial activity globally (GEM, 2021). Uganda, in particular, has been recognised for its high levels of entrepreneurial engagement, though much of it remains informal and survival-driven (Nangoli et al., 2020).

Additionally, entrepreneurship in Africa is deeply embedded in cultural and community structures, with social capital playing a crucial role in business success (Stam, 2002; Olomi, 2001). Many African entrepreneurs rely on family networks, cooperatives, and informal lending groups for financial and operational support (Oluwatobi et al., 2023). This differs significantly from Western models that emphasise individualism and venture capital funding (Acs and Szerb, 2007). Indigenous entrepreneurial practices, such as the "hustler economy" in Kenya and "Jua Kali" (informal sector) in East Africa, illustrate how local traditions influence entrepreneurial behaviour (Mwangi, 2019). These contexts underscore the importance of tailoring entrepreneurship education and policy interventions to local realities.

2.2.3 Working Definition of Entrepreneurship

The preceding discussion has examined the evolution of entrepreneurship from both a thematic and contextual perspective, highlighting its transformation from early economic theories to contemporary frameworks that include opportunity-driven, necessity-driven, digital, and social entrepreneurship. While historical perspectives have shaped the

foundational understanding of entrepreneurship, the African context underscores the importance of cultural, institutional, and socio-economic factors in defining entrepreneurial activity. To consolidate these insights, Table 4 provides a chronological summary of key contributions to the entrepreneurship literature, tracing its definitional evolution over time. This table highlights influential theories and frameworks that have shaped contemporary entrepreneurship discourse, including both classical economic perspectives and modern approaches that incorporate innovation, ecosystem dynamics, and digital transformation.

**Table 4: Evolution of entrepreneurship over time: key contributions to entrepreneurship literature over the years
(Authors' Own Compilations)**

| Period | Author | Definition and / or Basic Concept |
|-------------------------|-------------------------|--|
| 1755 | Richard Cantillon | Introduced the concept of the entrepreneur, defining it as 'Entreprendre' – the ability to initiate and undertake new ventures, with a focus on risk-taking and resource allocation. |
| 1766 | Jacques Turgot | Turgot introduced the concept of the "capitalist-entrepreneur," where entrepreneurs provide capital and assume market risks. He emphasises their role in economic processes. |
| 1771 | Nicolas Baudeau | Baudeau proposed the entrepreneurial function as one of innovation, introducing the concepts of invention and innovation into entrepreneurship discourse. |
| 1803, 1817 | Jean-Baptiste Say | Say distinguished between the entrepreneur and the capitalist, and emphasised the entrepreneur's role in marshalling resources to address unfulfilled opportunities. |
| 1911, 1928 | Joseph Alois Schumpeter | Schumpeter revolutionised the concept by associating entrepreneurship with " <i>creative destruction</i> " where entrepreneurs drive economic change through innovation and the creation of new business models. |
| 1921 | Frank Knight | Knight differentiated between risk and uncertainty, suggesting that entrepreneurs are those who navigate uncertainty and align opportunity with risk and reward. |
| 1945, 1967 | Friedrich Hayek | Hayek emphasised the importance of information and knowledge in entrepreneurship, where entrepreneurs leverage unique information to exploit market opportunities. |
| 1973, 1979, 1997 | Israel Kirzner | Kirzner dismissed the equilibrium theory, arguing that entrepreneurs are alert to opportunities created by market disequilibrium and capitalize on them. |
| 1974 | Peter Drucker | Drucker highlighted the role of entrepreneurship in adaptive decision-making, focusing on the ability of entrepreneurs to foresee and respond to market trends. |
| 1975, 1984, 1985 | Albert Shapero | Shapero emphasised cognitive processes in entrepreneurial decision-making, stressing judgment and the evaluation of opportunity feasibility. |

| | | |
|-------------------------------|--|---|
| 1985 | William B. Gartner | Gartner defined entrepreneurship as the process of creating value through the investment of time, effort, and the assumption of financial and social risks. |
| 1991 | Saras D. Sarasvathy | Sarasvathy introduced effectuation, focusing on how entrepreneurs create outcomes using existing resources. He emphasised adaptability over prediction. |
| 1993 | Bouchikhi | Bouchikhi introduced a constructivist approach, suggesting that entrepreneurial success results from the dynamic interplay of various elements in the entrepreneurial journey (Cherukara and Manalel, 2011). |
| 1996 | David Harper | Harper highlighted the role of experiential learning in entrepreneurship, focusing on how entrepreneurs acquire skills and knowledge through experience. |
| 2000 | Shane and Venkataraman | Shane and Venkataraman defined entrepreneurship as the study of how opportunities are discovered, evaluated, and exploited. They emphasise a systematic approach to entrepreneurial processes. |
| 2007; | Baron and Shane | Defined entrepreneurship as "the pursuit of opportunities beyond resources controlled". Highlights the proactive pursuit of opportunity despite the uncertainty and limited resources (Baron and Shane, 2007). Related to this research, Shane's work also highlights the factors that influence entrepreneurial behaviour, including environmental and organisational factors (Shane, 2000). |
| 2002 | Eric Stam | Stam emphasised the role of social capital and networks in entrepreneurship, considering the influence of social environments on entrepreneurial behaviour. |
| 2001, 2004, 2009, 2014 | David B. Audretsch | Audretsch explored the relationship between entrepreneurship, innovation, and economic performance, focusing mainly on the role of institutions and public policy in shaping entrepreneurial environments (Audretsch, 2009; Audretsch and Keilbach, 2004; Audretsch, 2014; Audretsch and Thurik, 2001). |
| 2010 | Steve Blank | Blank introduced the concept of customer development in entrepreneurship. He emphasises iterative learning and validation in the entrepreneurial process. |
| 2010 | Saras Sarasvathy | Sarasvathy further developed effectuation, focusing on how entrepreneurs navigate uncertainty through resourcefulness and systematic decision-making. |
| 2013 | Michael H. Morris; Donald F. Kuratko; Jeffrey R. Cornwall. | Described entrepreneurship as a process involving opportunity recognition, evaluation, and resource mobilisation to pursue entrepreneurial ventures. |
| 2019 | Satish Nambisan | Emphasised digital entrepreneurship, highlighting how digital technologies transform entrepreneurship and create new opportunities. |
| 2002 | Stefan Schaltegger | Describes ecopreneurship as "the combination of entrepreneurial and environmental goals, where entrepreneurs engage in business activities that not only aim for profit but also contribute to environmental sustainability." |

As highlighted above, entrepreneurship is a dynamic and evolving field that transcends traditional economic definitions. This evolution has been shaped by various economic, social, and technological transformations, resulting in multiple interpretations and perspectives on what constitutes entrepreneurial activity, with many scholars seeking to define and understand the entrepreneurial process in its many manifestations. However, one of the major challenges in this discourse is differentiating between the entrepreneur, entrepreneurial behaviour, and entrepreneurship itself. While traditional definitions focus on the individual entrepreneur, scholars such as Hebert and Link (1989) and Gartner (1989) argue that entrepreneurship should be understood as a process rather than merely an individual attribute. This process-driven perspective aligns with the growing emphasis on entrepreneurial skills development in entrepreneurship education (EE), shifting attention from innate traits to trainable behaviours and competencies (Timmons, 1994).

Additionally, the distinction between entrepreneurship and intrapreneurship is particularly relevant in EE, where institutions aim to develop entrepreneurial mindsets that apply both within startups and established organisations (Burgelman, 1983; Pinchot, 1985; Parker, 2011). With the increasing importance of corporate entrepreneurship and organisational innovation, the development of entrepreneurial skills has become a key objective in business education, further expanding the scope of entrepreneurship beyond independent ventures to include intrapreneurial activity within firms (Martíarena, 2013). This broad and evolving understanding of entrepreneurship necessitates a definition that is inclusive of both economic and social value creation, particularly in diverse global and African contexts where entrepreneurship is not only about wealth generation but also about economic survival and resilience (GEM, 2010; Williams and Nadin, 2010).

Despite the varied perspectives, there is a consensus in the academic community that entrepreneurship is closely linked with the creation and realisation of innovations that are both novel and valuable (Low and MacMillan, 1988; Van Praag, 1999; Thurik and Wennekers, 2004). As such, this study adopts a working definition of entrepreneurship that aligns with Venkataraman's (2019) conceptualisation of entrepreneurship as "any endeavour that involves the creation of new and valuable offerings," whether in the form of products, services, or social impact, irrespective of whether the objective is profit-driven or socially motivated (Austin et al., 2006).

Drawing from the above perspectives, this research considers entrepreneurship to be:

“Any endeavour that involves the creation of new and valuable offerings, whether in the form of products, services, or social impact – irrespective of whether the goal is profit generation or addressing societal needs”.

This definition aligns with the OECD’s (2008) broader perspective on entrepreneurship, which includes *“Individuals who seek to generate value, monetary or otherwise, through the creation or expansion of economic activities by identifying and exploiting new products, processes, or markets.” (OECD, 2008).*

With a clear understanding of what constitutes entrepreneurship, the next section explores entrepreneurial skills – the competencies, behaviours, and mindsets that underpin effective entrepreneurship. The discussion focuses on what skills entrepreneurs need, how these skills are developed, and the role of entrepreneurship education (EE) in fostering these competencies.

2.3 ENTREPRENEURSHIP EDUCATION: AN INTEGRATED APPROACH

Entrepreneurship Education (EE) plays a crucial role in equipping individuals with the necessary knowledge, skills, and mindset to navigate the complexities of entrepreneurial ventures. However, to develop effective EE frameworks, it is essential to first understand the foundational components that contribute to entrepreneurial success. This section begins with Entrepreneurship Skills (Part 1), examining the key competencies, behaviours, and attributes that define entrepreneurial capability. By establishing a comprehensive understanding of these skills first, the research sought to better assess how EE can be designed to foster their development. Following this, Entrepreneurship Education (Part 2) explores the pedagogical approaches, curriculum designs, and institutional strategies used to enhance entrepreneurial learning. By linking entrepreneurship skills to EE, this section provides a holistic view of how education shapes entrepreneurial outcomes.

2.3.1 ENTREPRENEURSHIP SKILLS

Entrepreneurship skills, often referred to as entrepreneurial competencies or capabilities, encompass a broad range of attributes, attitudes, and behaviours that enable individuals to identify, evaluate, and pursue opportunities that create value and drive change in various contexts (QAA, 2018). These skills are critical not only for entrepreneurs but also for intrapreneurs, who must navigate the complexities of starting and managing ventures or innovating within organisations.

2.3.1.1 Key Terminologies and Categorisations in Entrepreneurship Skills

Given the growing recognition of entrepreneurship as a driver of economic development, particularly in emerging economies like Uganda, understanding the nature and categorisation of these skills is essential for developing effective entrepreneurship education (EE) frameworks.

a) Soft Skills vs. Hard Skills

Entrepreneurial success is driven by a combination of soft and hard skills, each playing a distinct role in venture creation and management. Soft Skills refer to interpersonal and cognitive abilities that facilitate interactions, leadership, and adaptability (Amabile, 1996;

Shane and Venkataraman, 2000). These include emotional intelligence, communication, teamwork, and problem-solving. The World Economic Forum (2020) emphasises the growing importance of these skills in modern entrepreneurship, noting that they enable entrepreneurs to build relationships, negotiate effectively, and navigate uncertainty in volatile business environments. Particularly in African contexts, where informal networks and trust-based relationships play a crucial role in business transactions, soft skills are fundamental for entrepreneurial resilience and success (GEM, 2019).

On the other hand, hard skills encompass technical competencies necessary for business operations, such as financial literacy, digital proficiency, and strategic planning (Kahneman and Tversky, 1979; GEM, 2019). Empirical studies, including those from the Kauffman Foundation, highlight the correlation between technical expertise and venture scalability, with entrepreneurs who possess strong financial acumen being more likely to sustain their businesses (Cooney, 2012). In Uganda and similar emerging markets, access to financial literacy training has been linked to higher success rates in micro, small, and medium enterprises (MSMEs) (Mugobo and Mutize, 2021).

b) Skills vs. Competencies vs. Behaviours vs. Attributes

While these terms are often used interchangeably, they represent distinct concepts that contribute differently to the development of entrepreneurial capabilities.

- **Skills:** These are specific abilities or proficiencies acquired through learning, practice, and experience. They can be categorised into technical (hard skills) and interpersonal (soft skills) (Boud et al., 1985; Amabile, 1996; Shane and Venkataraman, 2000). Entrepreneurial skills, such as opportunity recognition, financial management, and marketing, are essential for venture success and can be developed through structured learning.
- **Behaviours:** These refer to observable actions exhibited in various situations. They are often influenced by personality traits, values, and attitudes (Northouse, 2021). In the context of EE, they entrepreneurial behaviours may include initiative, resilience, adaptability, and risk-taking (Frese and Gielnik, 2023). Some behaviours are innate,

while others can be cultivated through experiential learning and mentorship (Martin et al., 2019).

- **Attributes:** These are inherent characteristics or qualities, such as passion, persistence, and curiosity, which influence entrepreneurial success. Unlike skills, which can be acquired, attributes are intrinsic and relatively stable over time (Sternberg et al., 2004). They are often considered as predispositions or traits that individuals bring to whatever entrepreneurial context, they find themselves in (Sternberg, et al., 2004). The role of attributes in entrepreneurship is particularly evident in necessity entrepreneurship, where individuals rely on intrinsic motivation to navigate challenging economic conditions (GEM, 2019).
- **Competencies:** Competencies represent an integrated combination of skills, behaviours, attributes, and knowledge that enable effective performance in entrepreneurial roles (Kotler, 2009; Kotler and Keller, 2022). These include strategic thinking, resource management, and negotiation skills. Given the complex nature of entrepreneurship, the development of competencies requires a holistic approach that combines formal education, experiential learning, and mentorship (Henry et al., 2017).

Understanding the distinctions between the above categories is crucial for entrepreneurship educators, as it informs the design of curricula, teaching methodologies, and assessment strategies. The above categorisation helps educators to design targeted EE curricula that address the specific needs of diverse student groups. This involves developing learning objectives, instructional materials, and assessment methods tailored to each category of entrepreneurial skills. For example, practical modules on business model development can enhance technical skills, while case studies can foster strategic thinking and problem-solving abilities (Lackéus, 2015).

Additionally, differentiating between skills, competencies, and behaviours allows educators to employ appropriate teaching strategies. Skills-based learning may involve hands-on activities, such as business simulations, whereas behaviour-based learning could focus on role-playing and peer collaboration (Henry et al., 2017). The effectiveness of experiential learning has also been widely documented in African EE literature, where problem-based

learning and live entrepreneurial projects have led to improved student outcomes (Nabi et al., 2017).

Crucially, the distinction between skills, competencies, and behaviours facilitates accurate assessment of student learning outcomes. Various assessment methods, such as performance evaluations, peer assessments, and portfolio reviews, can be used to measure students' entrepreneurial competencies (Krathwohl, 1973; Krathwohl, 2002; Bloom and Krathwohl, 2020).

c) Entrepreneurial Skills in the African Context

Entrepreneurship skills are particularly crucial in Africa, where informal sector entrepreneurship dominates and where necessity entrepreneurship often outpaces opportunity-driven ventures (GEM, 2019). In Uganda, for example, the high unemployment rate has led to increased entrepreneurial activity, with many individuals engaging in small-scale enterprises as a means of economic survival (Williams and Nadin, 2010). However, the lack of structured entrepreneurship training poses challenges, as many entrepreneurs operate without adequate financial literacy or strategic management skills (Mugobo and Mutize, 2021). Recent studies highlight the importance of contextualising EE in Africa to address the specific challenges faced by entrepreneurs. For instance, Olomi (2001) argues that traditional Western-centric EE models may not be fully applicable in African contexts, where cultural norms, institutional constraints, and resource limitations shape entrepreneurial behaviour differently. Additionally, scholars such as Amankwah-Amoah et al. (2018) emphasise the need for EE to incorporate indigenous knowledge systems and community-based learning approaches to enhance relevance and impact.

2.3.1.2 Benchmarking: The Role of The Quality Assurance Agency for Higher Education (QAA) in Entrepreneurship Education

Entrepreneurship education (EE) has gained prominence as a critical component of higher education, equipping students with the necessary skills, mindset, and knowledge to navigate complex entrepreneurial landscapes. Across the UK, several organisations have contributed to the advancement of EE by fostering research, resource development, and institutional support. Notable among these are Enterprise Educators UK (EEUK), which promotes

knowledge exchange and professional development in EE; the National Centre for Entrepreneurship in Education (NCEE), which provides leadership training and policy advocacy; and the Higher Education Funding Council for England (HEFCE), which has historically funded EE initiatives to support curriculum development and enterprise education research. However, the Quality Assurance Agency for Higher Education (QAA) remains the foremost authority in ensuring that EE is effectively embedded within UK higher education institutions. As the independent expert body overseeing quality and standards in UK higher education, the QAA plays a pivotal role in shaping the pedagogical and assessment frameworks for EE. It ensures that universities deliver high-quality education by maintaining rigorous academic standards, safeguarding student interests, and fostering continuous innovation in teaching and learning (QAA, 2024). In the context of EE, QAA's influence extends beyond compliance, as it provides key guidelines and best practices for structuring entrepreneurship curricula, facilitating experiential learning, and assessing the development of entrepreneurship skills (QAA, 2018).

QAA's Guidance on Entrepreneurship Education

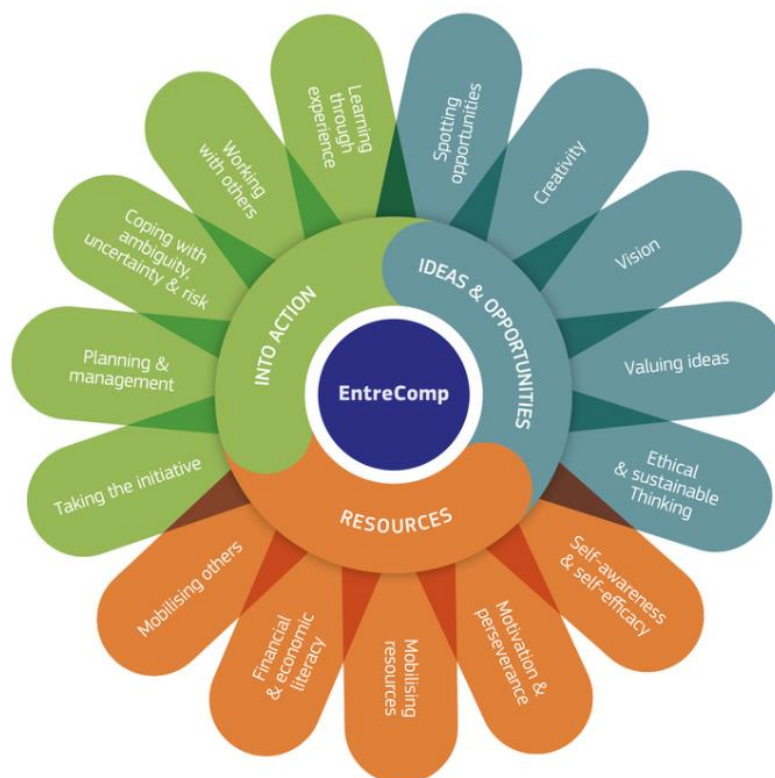
Recognising the growing importance of EE, the QAA first published guidance on enterprise and entrepreneurship education in 2012. Titled *Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers*, the document outlined best practices for embedding EE across disciplines, highlighting the need to cultivate entrepreneurial mindsets, problem-solving capabilities, and opportunity recognition skills (QAA, 2012). The guidance underscored that EE should be interdisciplinary and applicable to a wide range of academic fields, not just business studies. Recognising the evolving trends in EE, QAA released an updated guidance in 2018, which introduced a more structured framework for integrating EE into university curricula, with an emphasis on experiential learning, interdisciplinary collaboration, and real-world application. The 2018 QAA guidance also highlighted the role of universities in fostering an entrepreneurial culture and supporting student-led ventures through incubation and mentorship programmes (QAA, 2018). Additionally, it recognised the diversity of entrepreneurial pathways, including social entrepreneurship, broadening the scope of EE beyond conventional business start-ups (QAA, 2018). These initiatives by QAA have been instrumental in shaping the landscape of

entrepreneurial education in UK universities, providing a robust framework for designing, delivering, and evaluating EE programmes effectively.

Contextualising QAA's Framework in International and African Settings

While the QAA framework has provided a benchmark for EE in UK higher education, its principles have global relevance. The European Entrepreneurship Competence Framework – also known as the EntreComp (Bacigalupo, et al., 2016) similarly advocates for the development of entrepreneurial knowledge, skills, and attitudes, reinforcing many of the competencies outlined by QAA. The EntreComp framework (Figure 7) has influenced EE policies beyond Europe, including in developing economies where entrepreneurship is seen as a key driver of economic transformation (GEM, 2019).

Figure 7: The European Entrepreneurship Competence Framework (EntreComp) (Bacigalupo, et al., 2016)



However, despite the robustness of these frameworks, their applicability in African contexts remains underexplored (Urban and Kujinga, 2017). African entrepreneurship ecosystems differ significantly from those in developed economies due to structural challenges such as limited access to finance, weak institutional support, and high levels of necessity entrepreneurship (Olomi, 2001; Acs et al., 2008). Western-centric EE models often fail to

address the realities of entrepreneurship in developing economies, necessitating contextual adaptations (Amatucci and Crawley, 2011; Mathews et al., 2013; Smith and Nsanganira, 2015). Recent studies highlight the need for localised entrepreneurship education frameworks that consider informal sector entrepreneurship, community-driven innovation, and cultural influences on risk-taking and opportunity perception (George et al., 2016; Boso et al., 2017). For instance, Chimucheka (2014) emphasises that entrepreneurial education in Africa must incorporate indigenous knowledge systems and informal learning mechanisms that shape entrepreneurial behaviour in resource-constrained environments. Similarly, Muriithi (2017) notes that EE in Africa should focus more on developing survival-driven entrepreneurial skills alongside traditional opportunity-driven competencies.

Overall, the QAA framework provides a valuable benchmark for EE, ensuring that entrepreneurship skills development is structured, systematic, and aligned with industry needs. However, as research increasingly highlights the contextual dimensions of EE, it is imperative to examine how these frameworks apply across diverse entrepreneurial ecosystems. By grounding this study in the QAA framework while integrating insights from African entrepreneurship research, this study provides a comparative analysis of EE in the UK and Uganda, shedding light on the role of institutional frameworks, pedagogical approaches, and ecosystem influences in shaping entrepreneurial competencies. The next section delves into each of the entrepreneurship skills identified within the QAA framework, critically evaluating their relevance, applicability, and pedagogical implications in different educational settings.

2.3.1.3 Entrepreneurship Skills, as Defined by the QAA

A key feature of QAA's EE framework is its categorisation of entrepreneurship skills into distinct competencies, reflecting a holistic approach to entrepreneurial development. These competencies are designed to equip students with both hard and soft skills, fostering adaptability in dynamic business environments. The framework identifies core entrepreneurial competencies, including:

- i. Opportunity Recognition, Creation and Evaluation
- ii. Creativity and Innovation

- iii. Decision Making Supported by Critical Analysis, Synthesis and Judgement
- iv. Implementation Of Ideas Through Leadership and Management
- v. Action and Reflection
- vi. Communication and Strategy Skills
- vii. Digital and Data Skills

The goal of Entrepreneurship Education is to equip students with essential entrepreneurial skills, such as those outlined by QAA. This section explores the QAA's categorisation of these skills and discusses them within existing literature.

i. Opportunity Recognition, Creation, and Evaluation

Opportunity recognition is a fundamental skill in entrepreneurship, enabling individuals to identify, evaluate, and act on potential market or societal opportunities. This process involves environmental scanning, trend analysis, and the identification of unmet needs that can be addressed through entrepreneurial action (Stevenson et al., 1985; Venkataraman, 1997; Kirzner, 1999; Baron, 2006). The ability to recognise opportunities is influenced by entrepreneurial alertness, which refers to an individual's capacity to notice and respond to changes in the environment, even in the absence of explicit signals (Tang, Kacmar, and Busenitz, 2012).

i. Theoretical Foundations of Opportunity Recognition

Joseph Schumpeter's (1934) concept of "creative destruction" emphasises the entrepreneur's role as an agent of change, continuously innovating and disrupting existing markets. Schumpeterian entrepreneurs introduce novel products, services, or business models, thereby rendering older market structures obsolete. In contrast, Kirzner (1999) defines opportunity recognition from a more incrementalist perspective, arguing that entrepreneurs do not necessarily create new markets but rather identify gaps and inefficiencies within existing ones. This distinction between Schumpeterian and Kirznerian perspectives highlights the duality of entrepreneurial action, encompassing both radical innovation and incremental adaptation.

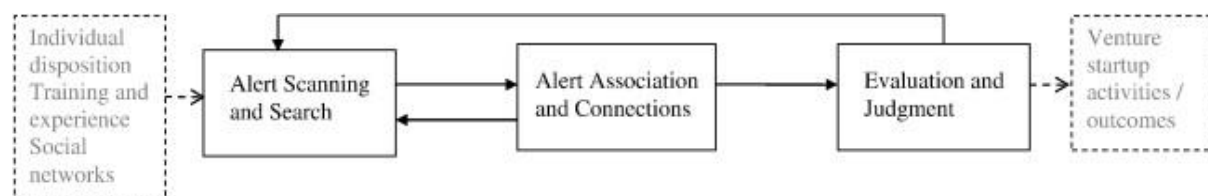
Research by Ardichvili, Cardozo, and Ray (2003) suggests that opportunity recognition is not merely a function of luck or intuition but is shaped by individual traits, prior knowledge, and

social networks. This aligns with Gaglio and Katz's (2001) concept of "entrepreneurial alertness," which emphasises cognitive mechanisms that enable entrepreneurs to "connect the dots" between seemingly unrelated pieces of information. Entrepreneurs who are adept at pattern recognition and knowledge recombination are more likely to identify and act upon emerging opportunities (Baron and Ensley, 2006).

Figure 8 illustrates Tang, Kacmar, and Busenitz's (2012) Model of Entrepreneurial Alertness, which conceptualises entrepreneurial opportunity recognition as a multi-stage process involving:

- Scanning and searching – continuously monitoring the environment for changes and trends.
- Association and connection – linking seemingly unrelated information to uncover new possibilities.
- Evaluation and judgment – assessing the feasibility and attractiveness of identified opportunities.

Figure 8: Model of entrepreneurial alertness (Tang, Kamcar and Busenitz, 2012)



ii. Contextual Factors in Opportunity Recognition

While the QAA (2018) highlights the need to develop entrepreneurial alertness among graduates to enhance their ability to perceive and adapt to opportunities, this is often challenging due to the dynamic nature of entrepreneurial ecosystems and varying economic, cultural, and institutional contexts. Entrepreneurs in developed economies may have access to advanced market intelligence, institutional support, and structured financing mechanisms, whereas those in developing economies often operate in environments of uncertainty and resource constraints (George et al., 2016).

Additionally, entrepreneurs do not evaluate opportunities in isolation but rather within the context of socially constructed rules and norms (Wood and Williams, 2014). This suggests

that opportunity attractiveness is influenced not just by economic potential but also by socio-cultural and institutional considerations. For example, what constitutes a viable business opportunity in Uganda may differ significantly from the UK due to differences in market infrastructure, consumer behaviour, and regulatory environments (Muriithi, 2017).

Additionally, African entrepreneurship is heavily influenced by necessity-driven motives, often arising from unemployment and a lack of formal economic opportunities (Olomi, 2001; Acs et al., 2008). In such contexts, opportunity recognition is shaped by survival imperatives rather than purely by innovation or market disruption (Williams and Nadin, 2010). This necessitates context-sensitive entrepreneurship education, ensuring that graduates are equipped with the skills to identify and leverage opportunities within resource-constrained settings. Therefore, to enhance opportunity recognition skills, entrepreneurship education must integrate experiential learning methodologies that expose students to real-world market dynamics, ultimately equipping them with the ability to navigate dynamic and often unpredictable entrepreneurial environments.

The next section will explore Innovation and Creativity, examining how entrepreneurs develop novel solutions and leverage creative thinking in the pursuit of opportunity realisation.

ii. Creativity and Innovation Skills

Creativity and innovation are cornerstones of entrepreneurship, enabling individuals to generate novel ideas and transform them into value-creating ventures (Shane, 2003). While the two terms are often used interchangeably, they represent distinct but interrelated concepts. Creativity involves the generation of new ideas, solutions, or approaches, whereas innovation is the process of transforming these creative insights into tangible products, services, or processes that create value (Schumpeter, 1934; Amabile, 1986). Entrepreneurs, as agents of change, are often required to challenge the status quo, think outside the box, and develop unique offerings that address societal needs and market gaps (Schumpeter, 1934). Accordingly, entrepreneurship education (EE) plays a crucial role in fostering creativity and innovation by equipping students with the skills, mindset, and practical experiences necessary for developing and executing innovative ideas (QAA, 2018).

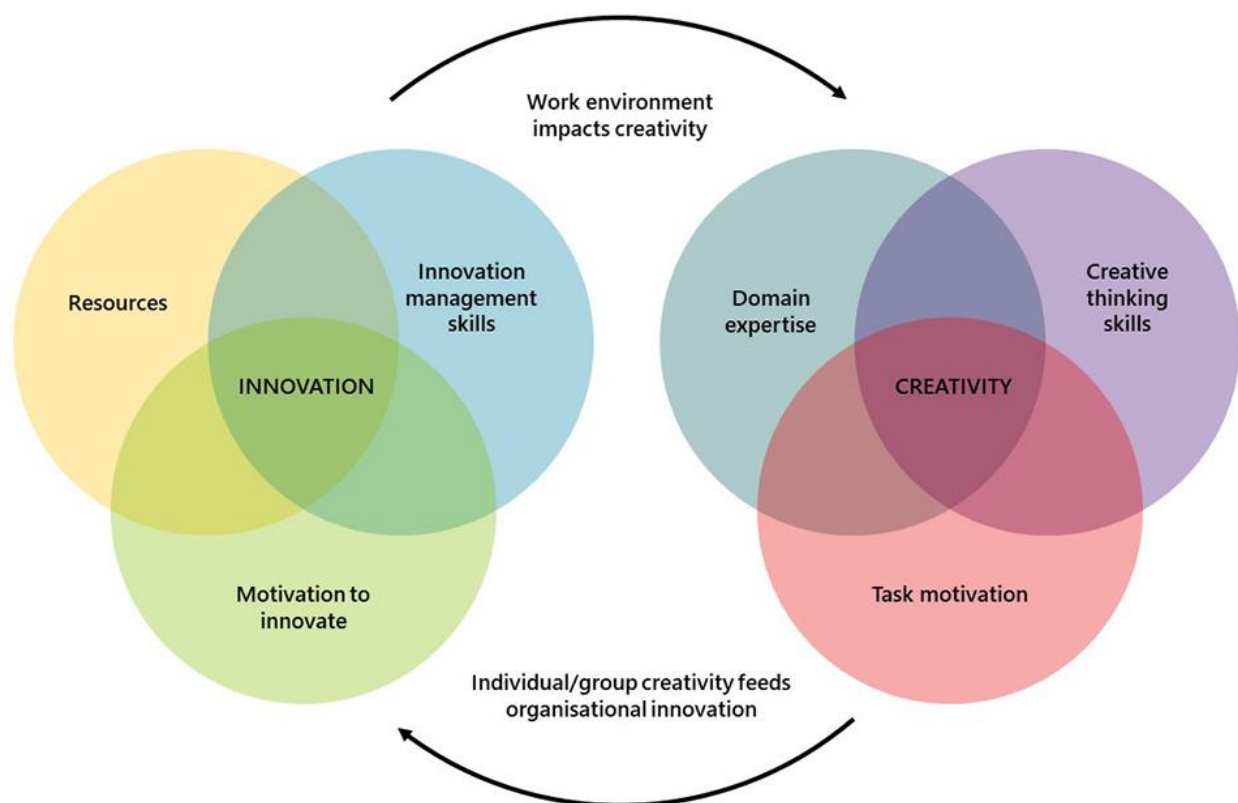
Theoretical Foundations of Creativity and Innovation in Entrepreneurship

Joseph Schumpeter (1934) conceptualised innovation as a disruptive force, arguing that entrepreneurs engage in “*creative destruction*” by introducing new combinations of products, services, or processes that replace outdated market structures. This dynamic reconfiguration of markets is a defining characteristic of entrepreneurship. Building on this, Shane (2003) posits that innovation bridges the gap between creativity and commercialisation, ensuring that ideas move beyond conceptualisation to implementation.

The Componential Model of Creativity (Amabile, 2011; 2012) identifies three core elements essential for creativity:

- Domain-relevant skills – knowledge, expertise, and technical skills that enable problem-solving within a given domain.
- Creativity-relevant processes – cognitive flexibility, divergent thinking, and risk-taking that facilitate novel idea generation.
- Intrinsic motivation – personal drive and passion that encourage persistence and commitment to creative endeavours.

Figure 9: Linkage between Innovation and creativity, and how they influence or impact each other (GOV.UK, 2025)



In particular, the Componential Model of Creativity underpins entrepreneurial creativity, highlighting how individual cognitive abilities interact with environmental conditions to foster innovative thinking (Mueller et al., 2012). Building on Amabile (1983; 1986)'s work, Figure 9 above highlights the linkage between Innovation and creativity, and how the two are interlinked and who they influence or impact each other (GOV.UK, 2025).

Contextual Factors Shaping Creativity and Innovation

Several factors influence creative and innovative capacities, including cognitive abilities, organisational environments, and cultural contexts (Rudowicz and Ng, 2003). Creativity thrives in environments that encourage divergent thinking, experimentation, and risk-taking, while innovation flourishes in settings that support idea implementation and provide the necessary resources for exploration (Mueller et al., 2012). For instance, cultural values significantly shape attitudes towards creativity and innovation, influencing entrepreneurs' willingness to embrace unconventional ideas (Nelson, 1993; Lundvall, 2007; 2016). Hofstede's (1980; 2011) cultural dimensions theory suggests that societal factors such as:

- Power distance (hierarchical vs. egalitarian societies)
- Uncertainty avoidance (tolerance for ambiguity and risk)
- Individualism vs. collectivism (preference for independent vs. group-oriented thinking)

...directly impact how creativity and innovation are perceived, pursued, and implemented (Harzing and Hofstede, 1996; Westwood and Low, 2003). For example, in high power-distance societies (e.g., Uganda), individuals may be less likely to challenge authority or propose radical ideas, whereas in low power-distance cultures (e.g., the UK), entrepreneurial creativity is often encouraged through open discussions and flat organisational structures. Similarly, collectivist cultures may favour incremental innovation that benefits the group, while individualistic cultures may promote disruptive innovation driven by personal ambition (Leung and Chiu, 2008; 2010).

In Africa, entrepreneurship is often necessity-driven, which influences how innovation is approached. Many African entrepreneurs prioritise frugal innovation – the ability to develop cost-effective, practical solutions using limited resources (George et al., 2012; Radjou and Prabhu, 2015). For instance, the widespread use of mobile money services like M-Pesa in

Kenya exemplifies how resource constraints can drive innovative business models (Aker and Mbiti, 2010). Such innovations may not always fit Western-centric models of creativity, highlighting the need for context-sensitive entrepreneurship education that accounts for local market conditions, resource availability, and cultural dynamics (Foster and Heeks, 2013).

Additionally, studies suggest that exposure to diverse cultural experiences enriches creative production, with multicultural societies such as the UK benefiting from a wide range of perspectives and problem-solving approaches (Leung and Chiu, 2008; 2010; Leung et al., 2010). However, navigating cultural diversity in entrepreneurship education presents both opportunities and challenges. While diverse perspectives foster cross-disciplinary creativity, they may also lead to conflicts in decision-making, communication barriers, and differing attitudes towards risk and experimentation (Mumford et al., 2002; Cerne et al., 2013). Given these complexities, entrepreneurship education ought to actively cultivate students' ability to operate within diverse entrepreneurial ecosystems, promoting cultural intelligence, adaptability, and global entrepreneurial mindsets (Neck and Greene, 2011).

Challenges in Creativity and Innovation Literature

Despite the well-established importance of creativity and innovation in entrepreneurship, scholarly debates persist regarding the interplay between individual traits, organisational structures, and cultural dynamics in shaping creative outcomes (Mumford et al., 2002; Cerne et al., 2013). Some researchers argue that entrepreneurial creativity is an innate trait, whereas others contend that it can be developed through structured learning and experiential education (Runco and Jaeger, 2012). Moreover, traditional Western-centric models of creativity and innovation may not fully capture the realities of entrepreneurs operating in resource-constrained environments, necessitating a more inclusive and contextual approach to studying innovation in diverse settings (Fayolle and Gailly, 2015).

There is no doubt that creativity and innovation are critical entrepreneurial skills, enabling individuals to generate novel ideas and implement them successfully in competitive markets. But as highlighted above, cultural, cognitive, and contextual factors significantly shape how these skills are developed and applied. As entrepreneurship education continues to evolve, a more inclusive and adaptable approach is required, ensuring that students are

prepared to navigate and innovate within diverse entrepreneurial ecosystems. The next section will explore decision making processes in entrepreneurship.

iii. Decision Making Supported by Critical Analysis, Synthesis, and Judgement

Entrepreneurs operate in environments characterised by uncertainty, complexity, and rapid change, requiring them to make decisions that can have long-term consequences for their ventures (Shane, 2003; Shepherd and Williams, 2014; Lohrke et al., 2018). These decisions range from day-to-day operational choices to strategic business decisions, each carrying varying degrees of risk and uncertainty. The ability to make sound, well-informed decisions is, therefore, a critical skill for entrepreneurial success. Within the context of entrepreneurship, decision-making refers to the cognitive process of evaluating available options, assessing risks, and choosing the most suitable course of action to achieve business objectives – whether in recognising opportunities, mitigating challenges, or allocating resources effectively (Edwards, 1954; Shane, 2003; Baron, 2008). Unlike creativity and innovation (discussed above), decision-making as an entrepreneurship skill has multiple interrelated dimensions, including:

- Critical Analysis – the systematic and objective evaluation of information, trends, and assumptions to make informed judgments (Baron, 2008; Bazerman and Moore, 2012; 2022).
- Synthesis – the ability to integrate diverse sources of information to develop a holistic understanding of complex situations (Lissack and Roos, 1999).
- Judgment – the capacity to apply insights derived from critical analysis and synthesis to make strategic decisions under uncertainty (Kahneman and Tversky, 1979; QAA, 2018).

Entrepreneurs must combine these skills to navigate complex and ambiguous business landscapes, balancing calculated risks with strategic foresight (Grichnik et al., 2010; Cope, 2011).

Theoretical Perspectives on Entrepreneurial Decision Making

One of the most influential scholars in decision-making theory is Herbert Simon (1957), who introduced the concept of bounded rationality. Simon challenged the notion of perfect rationality in decision making, arguing that entrepreneurs, like all decision-makers, are

constrained by cognitive limitations and information overload (Simon, 1957). As a result, instead of optimising their decisions, entrepreneurs often rely on heuristics – simplified rules or mental shortcuts – to make satisficing (satisfactory but not necessarily optimal) decisions (Simon, 1957).

Similarly, Daniel Kahneman and Amos Tversky (1979, 1981) revolutionised the understanding of decision making through prospect theory, which highlights how individuals exhibit systematic biases when making choices under uncertainty. Their research introduced key concepts such as:

- Loss aversion – the tendency to fear losses more than valuing equivalent gains (Kahneman and Tversky, 1979).
- Framing effects – how the presentation of choices influences decision outcomes (Tversky and Kahneman, 1981).

These insights underscore the importance of self-awareness in entrepreneurial decision-making, as entrepreneurs must actively mitigate cognitive biases to avoid flawed business judgments (Busenitz, 1997).

Gerd Gigerenzer (2007) expanded on these ideas with ecological rationality theory, arguing that decision-making strategies should be adapted to specific environments. He contended that in high-uncertainty environments (such as entrepreneurship ecosystems in emerging markets), simple heuristics may lead to better decisions than complex analytical models (Gigerenzer, 2007). This aligns with findings from Dew et al. (2009), who compared expert entrepreneurs with MBA students and found that:

- Experienced entrepreneurs rely on "effectual logic", making decisions based on available resources and iterative learning.
- MBA students adopt a "predictive frame", relying on textbook theories and structured analysis rather than real-world experience.

This distinction highlights the value of experiential learning in EE, reinforcing why entrepreneurship education should prioritise practical decision-making skills alongside theoretical frameworks (Bazerman and Moore, 2013; Eisenhardt, 2007).

Entrepreneurial Decision-Making in Emerging vs. Developed Markets

Decision-making processes are inherently context-dependent, influenced by institutional, cultural, and economic conditions (Sarasvathy, 2001; Eisenhardt, 2007). In developed markets (e.g., UK), entrepreneurs have access to stable regulatory environments, financial resources, and structured support systems, enabling them to make data-driven strategic decisions (OECD, 2018). Conversely, in emerging markets (e.g., Uganda), entrepreneurs often operate in highly uncertain environments with limited infrastructure and institutional support (Welter and Gartner, 2016).

This context necessitates a greater reliance on adaptive decision-making approaches, such as:

- Effectuation (Sarasvathy, 2001) – a logic that prioritises flexibility, experimentation, and leveraging existing networks rather than rigid planning.
- Frugal innovation (Radjou and Prabhu, 2015) – entrepreneurs in resource-constrained environments develop cost-effective solutions by creatively repurposing available resources.

These approaches demonstrate how decision-making is likely to vary based on ecosystem dynamics and reinforce the need for contextualised EE models that equip students with both structured decision frameworks and adaptive problem-solving skills (George et al., 2012; Foster and Heeks, 2013). Indeed, despite advancements in decision-making research, scholars continue to debate the optimal balance between analytical rigor and intuitive judgment (Eisenhardt, 2007; Bazerman and Moore, 2012). Key challenges include:

- Over-reliance on heuristics – While heuristics improve decision efficiency, they can lead to systematic biases, such as overconfidence and confirmation bias (Busenitz, 1997).
- Paralysis by analysis – Entrepreneurs who focus excessively on data and scenario planning may miss market opportunities due to indecision (Simon, 1957).
- Cognitive biases in risk assessment – Entrepreneurs often exhibit optimism bias, underestimating risks while overestimating their likelihood of success (Kahneman and Tversky, 1979).

Evidently, entrepreneurial decision-making is a multifaceted process, requiring individuals to critically evaluate information, synthesise insights, and apply judgment under uncertainty. Therefore, and as entrepreneurial ecosystems become increasingly EE must incorporate decision-making frameworks that balance analytical methods with real-world entrepreneurial constraints (Grichnik et al., 2010).

iv. Implementation of Ideas Through Leadership and Management

Entrepreneurial success is not solely dependent on the ability to generate ideas but also on the execution of those ideas through effective leadership and management (West, 2002; Kuratko, 2007). Entrepreneurs must inspire, mobilise, and direct teams, while also ensuring the efficient allocation of resources, goal-setting, and strategic execution. The ability to balance visionary leadership with operational management is particularly crucial during the early stages of venture creation, where entrepreneurs often assume multiple roles due to resource constraints (Storey, 2016).

While leadership and management are often discussed together, they represent distinct yet complementary skill sets. Leadership focuses on vision, strategy, and motivation, inspiring teams toward long-term goals (Northouse, 2021), while management deals with processes, execution, and efficiency, ensuring that the operational aspects of a business run smoothly (Kotter, 1990; Yukl, 2013). Entrepreneurs, especially in small businesses and startups, often have to assume both roles simultaneously (Grint et al., 2016). In resource-limited environments, entrepreneurs are expected to lead, manage, and execute tasks themselves, making both leadership and management skills essential for venture success (QAA, 2018).

Entrepreneurial Leadership and Management Theories

Several theoretical frameworks have shaped the discourse on entrepreneurial leadership and management, each offering insights into how entrepreneurs influence and organise their ventures:

- **Trait vs. Behavioural Theories of Leadership:** Early leadership research, including the Great Man Theory (Carlyle, 1840) and Trait Theory (Stogdill, 1948), suggested that leaders possess innate qualities such as charisma, confidence, and decisiveness. However, contemporary scholars argue that leadership is learned and context-

dependent, shifting the focus toward behavioural leadership theories (Bass, 1990). For entrepreneurs, learning adaptive leadership behaviours is more valuable than relying on fixed personality traits, as leadership styles must evolve with the venture's growth and challenges (Kirkpatrick and Locke, 1991).

- **Transformational Vs. Transactional Leadership:** Transformational leadership is particularly relevant in entrepreneurial settings as it focuses on vision, inspiration, and innovation (Bass, 1990; Antonakis and House, 2014). Entrepreneurs often adopt transformational leadership styles by challenging the status quo, inspiring followers, and fostering a culture of creativity (Bass and Riggio, 2006). Transactional leadership, in contrast, focuses on structure, order, and short-term performance, aligning more with management functions such as task delegation, performance monitoring, and operational efficiency (Burns, 1978; Bass, 1990). Therefore, entrepreneurs must blend transformational and transactional leadership styles to balance strategic vision with operational efficiency, particularly in dynamic environments (Ensley et al., 2006).
- **Situational and Contingency Theories:** Entrepreneurs operate in diverse environments, requiring adaptive leadership approaches. Hersey and Blanchard's Situational Leadership Model (1969) suggests that leaders must adjust their style based on team maturity and task complexity, while Fiedler's Contingency Theory (1967) argues that leadership effectiveness depends on situational factors, such as organisational structure, industry, and entrepreneurial ecosystem. For entrepreneurs, adaptability is key – leadership approaches must evolve as the business scales and encounters new challenges (Vecchio, 2003).

Leadership and Management in Different Cultural Contexts

Culture significantly influences leadership styles and management practices, shaping how entrepreneurs interact with employees, investors, and stakeholders (Hofstede, 1980; House et al., 2004). In high power-distance cultures (e.g., Uganda, China, India), hierarchical leadership structures dominate, with decision-making concentrated at the top (Hofstede, 1980). In low power-distance cultures (e.g., UK, Netherlands, Sweden), leadership tends to

be more participatory and decentralised, with employees encouraged to contribute ideas (Hofstede, 2011). These cross-cultural differences highlight the importance of contextual awareness in entrepreneurship education (EE). Entrepreneurs operating in global markets or diverse teams must develop cross-cultural leadership competencies to effectively manage teams across different cultural landscapes (Javidan et al., 2006).

Challenges in Entrepreneurial Leadership and Management

Despite its significance, entrepreneurial leadership faces numerous challenges, particularly in early-stage ventures (Ensley et al., 2006). Foremost, entrepreneurs face resource constraints. They must lead and manage with limited financial, human, and technological resources (Kuratko, 2007). Additionally, decision-making is often complex, requiring resilience and adaptability (Shane, 2003) especially in volatile and uncertainty environments. Moreover, they often have to balance Innovation with execution (Bass and Riggio, 2006) whilst attracting and retaining talented employees (Baron, 2008).

While leadership focuses on vision, influence, and strategic direction, management ensures efficiency, execution, and sustainability. Entrepreneurs must balance both roles, especially in early-stage ventures where they often wear multiple hats. EE must therefore bridge the gap between leadership theory and entrepreneurial practice, ensuring that students develop both strategic leadership and operational management competencies to navigate complex entrepreneurial landscapes. The next section will explore Action and Reflection, focusing on how entrepreneurs learn from experience, iterate on ideas, and refine their decision-making approaches through continuous feedback loops.

v. Action and Reflection

Fear of failure, known as atychiphobia, is one of the most significant barriers preventing individuals from pursuing entrepreneurial ventures (Cacciotti et al., 2016; Cope, 2011; Cardon, Stevens, and Potter, 2011; Kollmann, Stöckmann, and Kensbock, 2017; Morgan and Sisak, 2016; Olaison and Sørensen, 2014). Despite possessing the necessary skills and experience, approximately 50% of adults refrain from starting businesses due to fear of failure (GEM, 2022). This fear is not unfounded, as 90% of startups fail, according to a report by Startup Genome (2019), with failure rates varying by industry and geographical context

(CB Insights, 2019). Given these realities, entrepreneurs must develop action and reflection skills to navigate uncertainty, learn from experience, and adapt to changing market conditions.

Action in entrepreneurship involves the process of transforming ideas into tangible outcomes through deliberate effort, risk-taking, and execution (Shane and Venkataraman, 2000). This includes key activities such as opportunity recognition (Baron, 2006), resource mobilisation (Stevenson and Jarillo, 1990), and product development and market entry (Shane, 2003). Entrepreneurs engage in proactive behaviour to exploit opportunities, often facing uncertainty and risk (Shane, 2000). Sarasvathy's (2001) effectuation theory emphasises that entrepreneurs rely on existing resources and iterative experimentation, rather than waiting for optimal conditions before acting.

Reflection on the other hand is the deliberate introspection and critical evaluation of one's entrepreneurial experiences, actions, and decisions (Mitchell et al., 2002). It involves assessing successes and failures to extract insights (Boud, 1993), identifying learning opportunities to improve future actions (Rogers, 2001) and sense-making of entrepreneurial outcomes (Mitchell et al., 2000). Together, action and reflection form a dynamic learning cycle in which entrepreneurs experiment, learn, and adapt through iterative processes.

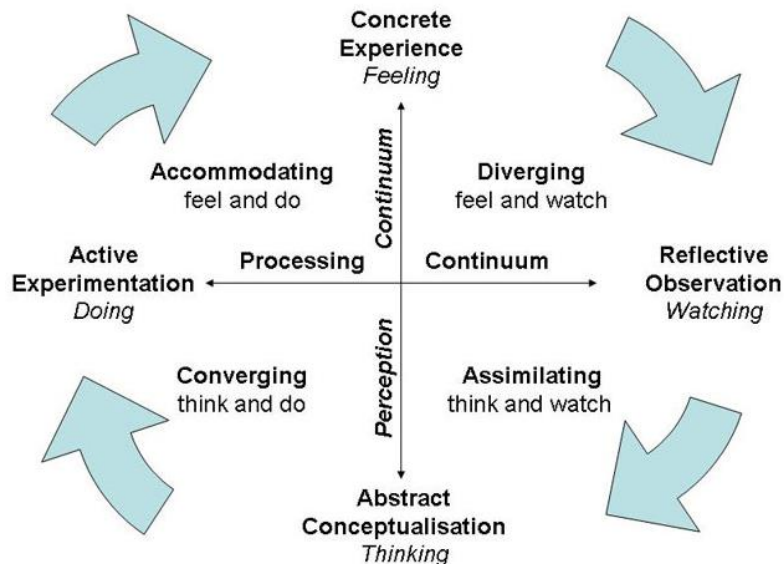
Action and Reflection in Entrepreneurship: Theoretical Foundations

Several psychological and educational theories provide frameworks for understanding action-reflection cycles in entrepreneurship.

- **Kolb's Experiential Learning Cycle:** David Kolb's Experiential Learning Cycle is a widely used model that describes how individuals acquire knowledge through a cyclical process of action and reflection (Kolb, 1984). The four stages (Figure 10) are:
 - Concrete Experience – Engaging in real-world entrepreneurial activity
 - Reflective Observation – Reviewing and analysing outcomes
 - Abstract Conceptualisation – Drawing conclusions and extracting lessons
 - Active Experimentation – Applying insights to new actions

Kolb's theory aligns with entrepreneurial learning, where individuals refine their decision-making and problem-solving skills through hands-on experience and iterative feedback loops (Fiet, 2001; Gibb and Hannon, 2006).

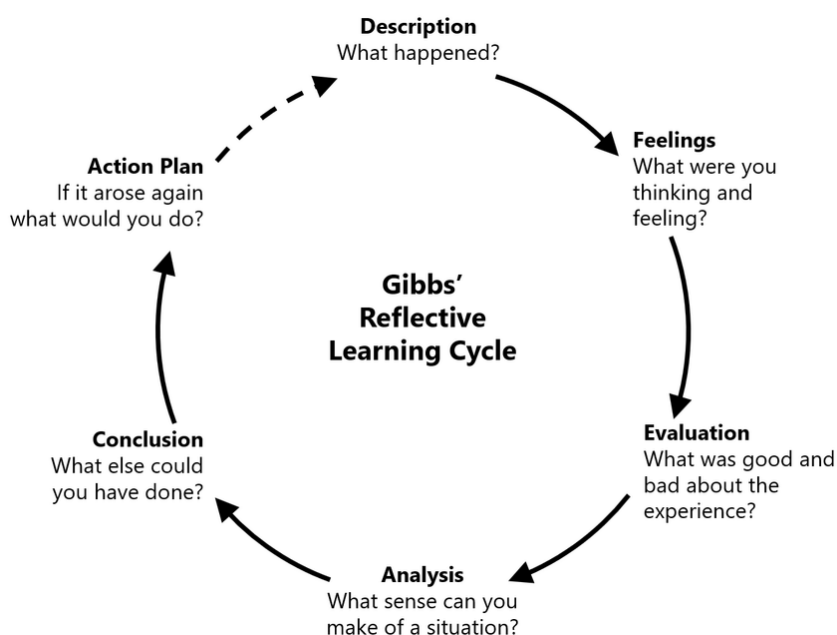
Figure 10: Action and Reflection in Entrepreneurship – Kolb's (1984) Experimental Learning Cycle



- **Gibbs' Reflective Cycle:**

Similarly, Gibbs' reflective cycle (Figure 11) emphasises the iterative nature of reflection, involving stages of description, feelings, evaluation, analysis, conclusion, and action planning (Gibbs, 1988). Both Gibbs and Kolb's frameworks provide entrepreneurs with structured

Figure 11: Gibbs' (1988) reflective Cycle



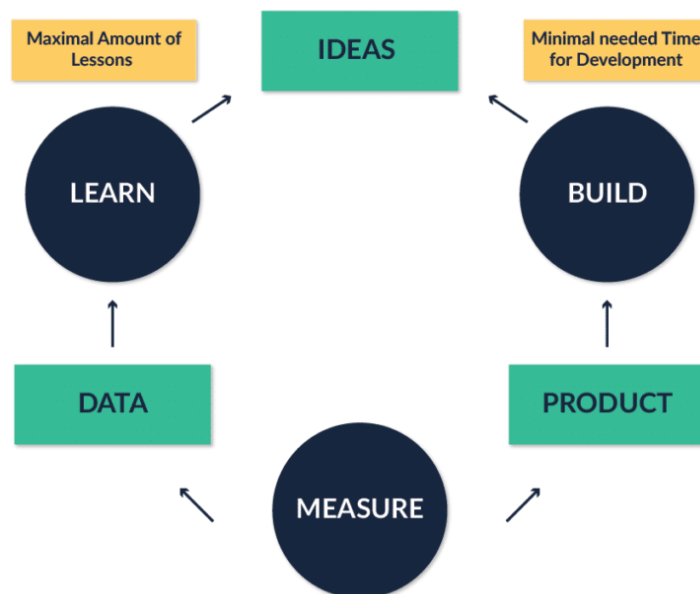
approaches to learning from

experience and enhancing their decision-making capabilities. This model is particularly relevant for entrepreneurs, as it promotes iterative self-improvement in decision-making, risk-taking, and opportunity recognition (Griffiths, 2018).

- **Lean Startup Methodology:**

The lean startup methodology popularised by Eric Ries (2011), emphasises the importance of rapid experimentation, iterative learning, and customer feedback in driving entrepreneurial action (Figure 12). Ries advocates for a "build-measure-learn" cycle where entrepreneurs continuously iterate on their products or services based on real world feedback from customers. In a continuous innovation process, Ries argues that “by the time that product is ready to be distributed widely, it will already have established customers” (Ries, 2011).

Figure 12: Lean Startup Process (Source: VistaPub.Co)



- **Effectual Reasoning and Entrepreneurial Self-Efficacy**

Additionally, the concepts of effectual reasoning (Bandura, 1986) and entrepreneurial self-efficacy (Sarasvathy, 2001) also provide frameworks for understanding how entrepreneurs make decisions and take action in uncertain environments. Effectual reasoning involves a focus on the means at hand, leveraging existing resources and networks, and embracing surprises and contingencies as opportunities for adaptation and innovation (Bandura, 1986). While in the concept of entrepreneurial self-efficacy, individuals, based on past experiences, develop confidence in their ability to identify opportunities, mobilise resources, and overcome challenges (Sarasvathy, 2001) – essentially, a problem-solving approach based on action and reflection in entrepreneurial decision-making.

Key Discussions Around Action and Reflection

Action and reflection are increasingly recognised as essential components of EE curricula, as emphasised by the QAA (2012; 2018). These skills enable entrepreneurs to identify patterns, recognise opportunities, and make informed decisions, reinforcing their ability to adapt and thrive in uncertain environments (Brinckmann et al., 2010). Entrepreneurs who engage in regular reflection are better equipped to derive insights from past experiences, enhancing their ability to evaluate risks, refine strategies, and sustain long-term business success (Cope, 2011; Pittaway and Thorpe, 2012). Conversely, action-oriented entrepreneurs who embrace experimentation and learn from failure tend to be more resilient and adaptive to market shifts, reinforcing the iterative nature of entrepreneurship (Mair and Marti, 2006; Cardon et al., 2017; Cardon et al., 2019).

Despite the growing consensus on the importance of action and reflection in EE, gaps remain in the literature, particularly concerning their long-term effects on venture performance and sustainability (Fayolle et al., 2019; Loi and Fayolle, 2021). Most studies focus on short-term skill acquisition, but longitudinal research is needed to determine how entrepreneurial graduates apply these skills over time. Additionally, while many scholars highlight the importance of both action and reflection, ongoing debates persist regarding which is more influential in driving entrepreneurial success. Some studies emphasise the role of psychological traits like grit, resilience, and self-efficacy in entrepreneurial performance (Alhadabi and Karpinski, 2020). Others focus on opportunity recognition as the primary determinant of entrepreneurial success, suggesting that action alone is insufficient without strategic insight (Fisher et al., 2014). Interestingly, some scholars also caution against excessive reflection, arguing that over-analysis can lead to "*paralysis by analysis*", where individuals become so absorbed in evaluation that they fail to act on emerging opportunities (Hall, 2020).

This suggests that balancing action and reflection is critical for effective entrepreneurial decision-making. Future research is needed to explore optimal strategies for integrating both elements within entrepreneurial education, ensuring that students develop both critical thinking skills and a bias toward action.

vi. Communication and Strategy Skills

Communication skills are foundational to entrepreneurship, influencing an entrepreneur's ability to articulate business ideas, build relationships, and negotiate effectively with key stakeholders (Lussier and Achua, 2015; O'Hair et al., 2015; Spitzberg and Cupach, 1984). Entrepreneurs must engage with investors, customers, employees, and regulatory bodies, making clear and persuasive communication essential for business success (Baron and Markman, 2003). Effective communication fosters collaboration, innovation, and strategic alignment, particularly in the formation of business partnerships and securing funding (Brush et al., 2003; Vaghely and Julien, 2010).

In the evolving entrepreneurial landscape, communication now extends beyond traditional face-to-face interactions to include digital communication channels, social media engagement, and cross-cultural discourse (Angel-Urdinola et al., 2021). The emergence of high-stakes pitch environments, such as Dragons' Den and Shark Tank, underscores the importance of concise, persuasive communication in securing investment (Daly and Davy, 2016; ABC, 2019; BBC, 2024). These platforms highlight how verbal and non-verbal communication, storytelling, and audience adaptation are crucial for entrepreneurial success.

Several communication theories underpin entrepreneurial communication practices, notably:

- **Persuasive Communication Model** – This framework emphasises the ability to influence and sell ideas effectively, particularly in securing investment, marketing products, and negotiating deals (Petty and Cacioppo, 1986).
- **Transactional Model of Communication** – Unlike linear models, this approach views communication as a dynamic process involving feedback and interpretation, where entrepreneurs must adapt their messages based on audience reactions (Shannon and Weaver, 1949).
- **Social Learning Theory** – Developed by Bandura (1986), this theory suggests that communication skills are acquired through observation, imitation, and reinforcement, reinforcing the importance of experiential learning and role modelling in entrepreneurship education.

With the rise of digital entrepreneurship, online platforms now serve as critical tools for business communication, requiring entrepreneurs to master social media engagement, virtual collaboration, and digital marketing strategies. The COVID-19 pandemic accelerated the adoption of remote business operations, making technology-mediated communication a vital entrepreneurial skill (Korsgaard et al., 2015). Additionally, in an increasingly globalised business environment, entrepreneurs must develop cross-cultural communication competencies to navigate international markets (Harzing and Pinnington, 2011). Intercultural sensitivity, adaptability, and multilingual proficiency have also become essential skills for engaging diverse stakeholders and expanding businesses beyond domestic markets (Thomas and Inkson, 2017). Despite progress, gaps remain in the literature regarding how communication styles evolve across different entrepreneurial stages and the long-term impact of digital communication on entrepreneurial success.

vii. Digital and Data Skills

Digital and data skills have become fundamental in entrepreneurship, enabling individuals to leverage technology for innovation, decision-making, and market competitiveness. By 2019, these skills were among the most in-demand by employers worldwide (Robert Half, 2019), a trend further accelerated by the COVID-19 pandemic, digital transformation, and the rise of AI-driven automation (Ferrari and Punie, 2021).

Although distinct, digital and data skills often overlap in practice. Digital skills focus on the practical use of technology, software, and digital communication tools, whereas data skills emphasize the ability to collect, analyse, and interpret information to inform strategic decision-making (Westerman et al., 2011; Shane et al., 2015). Digital literacy, meanwhile, serves as a foundational skillset that enables entrepreneurs to critically engage with digital environments and tools (Ferrari and Punie, 2021). Digital skills, therefore, refer to the competencies required to effectively use, adapt, and innovate with digital technologies. Traditionally, digital skills encompassed basic computer literacy and software use; however, technological advancements have expanded their scope to include cybersecurity, digital collaboration, cloud computing, and automation (Eurostat, 2020; Gov.UK, 2024). These skills are essential in entrepreneurship education (EE) as they empower individuals to launch

digital ventures, scale businesses online, and harness technological advancements for competitive advantage (Ferrari and Punie, 2021).

The increasing importance of digital skills in entrepreneurship is evident in several key areas including E-commerce and Digital Marketing, where entrepreneurs must master online sales platforms, search engine optimisation (SEO), social media marketing, and digital branding (Chaffey, 2022); remote work and collaboration, where digital skills enable entrepreneurs to collaborate across geographical boundaries using virtual communication tools, cloud-based project management, and digital workspaces; and tech-enabled business models, where startups and established businesses alike, increasingly rely on digital infrastructure, software-as-a-service (SaaS) models, and digital product offerings (Brynjolfsson and McAfee, 2014).

More recently, however, the advent of artificial intelligence (AI), machine learning, and automation has further expanded the role of digital skills. Entrepreneurs now require an understanding of AI applications in business, such as chatbots, predictive analytics, and automated marketing (Shane et al., 2015); cybersecurity awareness, particularly regarding data protection and digital fraud prevention (Westerman et al., 2011) and cloud computing and blockchain, which influence areas such as fintech, supply chain transparency, and decentralised business models. To keep pace with this digital revolution, universities are increasingly embedding digital competencies within EE curricula, offering courses in digital entrepreneurship, data analytics, cybersecurity, and automation (Albatch et al., 2019).

Data Skills and Digital Literacy

As highlighted above, data skills are increasingly crucial for modern entrepreneurs as they allow for data-driven decision-making, market analysis, and business intelligence (Davenport and Harris, 2007). However, these skills extend beyond basic data handling to data visualisation, statistical modelling, and algorithmic decision-making (Westerman et al., 2011). Entrepreneurs who master data analytics can extract actionable insights from large datasets, improving customer segmentation and targeted marketing (Brynjolfsson and McAfee, 2014); optimise operations, using real-time performance analytics to streamline supply chains, pricing strategies, and resource allocation (Gutiérrez-Ángel et al., 2022); and

be able to predict consumer trends, leveraging big data and AI to forecast demand, tailor product development, and personalise customer interactions (Shane et al., 2015).

On the other hand, with the rise of big data and AI, prompting skills – the ability to effectively interact with AI systems – have become a critical aspect of digital and data literacy. AI-driven platforms such as ChatGPT, DeepSeek, Google Bard, and predictive analytics tools require entrepreneurs to master efficient querying techniques to extract relevant insights. As AI continues to advance, entrepreneurs who develop proficiency in AI-driven decision-making, automation, and data analytics are likely to maintain a competitive edge in the digital economy.

Alongside data skills is digital literacy, which refers to the ability to critically evaluate, navigate, and create digital content. As the foundation of digital and data skills, digital literacy is crucial for identifying credible sources of information and avoiding misinformation (Engelbart, 1962; Zurkowski, 1974); understanding digital ethics, including privacy regulations and responsible AI use (Gilster and Gilster, 1997) and developing a digital-first mindset, enabling entrepreneurs to adapt to technological disruptions and leverage emerging innovations (Ferrari and Punie, 2021).

Overall, the importance of digital literacy in entrepreneurial success cannot be overstated. Indeed, the integration of digital and data skills into entrepreneurship education is no longer optional – it is a necessity for thriving in the digital economy. As technology continues to evolve, entrepreneurs must also continuously upskill to keep pace with emerging technologies, ensuring they remain competitive in an increasingly digital and data-driven business environment (Gov.UK, 2024). Equally, universities and EE programmes must also continue to equip students with the digital competencies required to navigate and capitalise on emerging trends. In the meantime, future research should explore the impact of AI on entrepreneurial education and the role of digital literacy in preparing students for the uncertainties of digital transformation.

2.3.1.4 Summary of Entrepreneurship Skills

The above section explored entrepreneurship skills, and demonstrated how fundamental they are to fostering innovation, resilience, and strategic decision-making in an increasingly

complex and dynamic global economy. The section examined key entrepreneurial competencies, including opportunity recognition, creativity and innovation, decision-making, leadership and management, action and reflection, communication and strategy, and digital and data skills. These skills are multifaceted and interdependent, equipping entrepreneurs with the ability to identify market gaps, develop innovative solutions, execute ideas effectively, and navigate technological advancements. Importantly, the discussion has also highlighted the evolving nature of these skills, influenced by technological shifts, cultural contexts, and changing business landscapes, particularly in the context of entrepreneurship ecosystems in both developed and developing economies (QAA, 2018).

However, entrepreneurial skills alone are not sufficient; their development requires structured learning – which highlights the importance of entrepreneurship education (EE) in equipping individuals with the knowledge, mindset, and competencies necessary to thrive in entrepreneurial ventures. The next section delves into entrepreneurship education, examining its historical evolution, pedagogical approaches, and role in bridging the gap between theoretical knowledge and practical application.

2.3.2 ENTREPRENEURSHIP EDUCATION: THEORIES AND APPROACHES

The debate on whether entrepreneurs are born or made has long intrigued scholars and practitioners. Some, like Coffield (1992), argue that entrepreneurship is more of an art than a science and question whether its essence can be distilled and taught - *“there is no generic skill of enterprise whose essence can be distilled and taught”* Coffield (1992). Conversely, others assert that entrepreneurship can indeed be cultivated through education and emphasising the importance of content and delivery methods in EE (Gibb, 2002; Kuratko, 2005; Fayolle and Gailly, 2015). In the African context, EE faces several challenges, including limited access to resources, inadequate institutional support, and a mismatch between education and labour market demands (Olomi, 2001). Entrepreneurial skills development is inextricably linked to Entrepreneurship Education (EE), and addressing these challenges requires a rethinking of EE curricula to ensure that they are contextually relevant and aligned with the realities of local entrepreneurial ecosystems.

ENTREPRENEURSHIP EDUCATION (EE) VS ENTERPRISE EDUCATION

Entrepreneurship Education (EE) and Enterprise Education are often used interchangeably. However, the Quality Assurance Agency for Higher Education (QAA) distinguishes between the two (QAA, 2012; 2018). Enterprise Education focuses on developing students' lifelong skills, such as creativity, adaptability, teamwork, and strategic thinking, which are applicable across various life and work contexts (Draycott and Rae, 2011). This form of education prepares students to generate innovative ideas and respond effectively to challenges in dynamic environments. In contrast, Entrepreneurship Education (EE) builds on these foundational competencies and is more specifically oriented towards business creation and value generation, whether economic, cultural, or social (QAA, 2018). EE encompasses a wide range of activities designed to foster entrepreneurial attitudes, skills, and competencies, going beyond traditional business education by emphasising creativity, innovation, risk-taking, and opportunity recognition (Fayolle and Gailly, 2015). It integrates both theoretical knowledge and practical experiences, utilising formal academic programmes, experiential learning opportunities, mentorship, and startup incubators to cultivate entrepreneurial mindsets (Kuratko, 2005). The importance of EE is rooted in its potential to drive economic

growth and job creation (Fayolle and Gailly, 2015), by equipping students with the necessary skills and behaviours to succeed in a rapidly changing economy (Mwasalwiba, 2010).

While most EE literature is predominantly Western-centric, emerging research highlights the need for context-specific EE approaches, particularly in Africa and developing economies (Amzat and Valdez, 2017). In these contexts, EE plays a crucial role in bridging gaps in employment, stimulating informal sector growth, and fostering resilience in regions where job markets are often constrained (Essien and Adelekan, 2021; Okeke and Alonta, 2023). As such, understanding the variations in EE across different cultural and economic landscapes is crucial in ensuring its effectiveness. This section provides an overview of the EE landscape and explores the key theoretical foundations that have shaped its development over time, highlighting best practices, pedagogical approaches, and key challenges in the field.

2.3.2.1 When Does Learning Occur?

Entrepreneurship education theories and approaches draw from various educational and psychological theories to emphasise the acquisition of knowledge, skills, and capabilities necessary for entrepreneurial success (Säljö, 1979; Cannon and Newble, 2013). Learning is broadly defined as acquiring knowledge and understanding, involving not only cognitive processes but also the ability to produce action and demonstrate understanding through experience (Kim, 1993). It is not limited to the mere transfer of information but involves a measurable change in behaviour due to acquiring knowledge, skills, and capabilities (Mumford, 1995; Säljö, 1979). Traditional EE literature predominantly focuses on teachers, teaching methods, and what is being taught (Mohammed and Ali, 2021). However, constructivist scholars argue that learning is best achieved when individuals actively engage in problem-solving and experiential learning (Walker, 2003; Baets and Van der Linden, 2000). This aligns with the view that education is a lifelong process, where individuals continuously acquire knowledge and skills that enable them to adapt and thrive in different professional and personal contexts (Mwasalwiba, 2010).

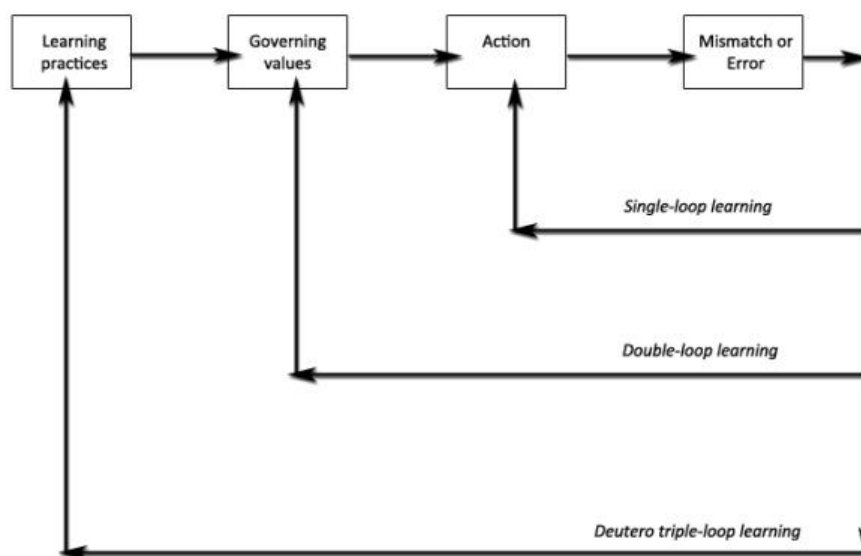
The learning process itself can be transformative or incremental (Mumford, 1995), occurring explicitly, through conscious effort, or implicitly, where learners acquire knowledge unconsciously (Reber, 1989). Explicit learning is typically measurable through cognitive processes such as memory retention or exams, while implicit learning happens

automatically, often without the learner's conscious awareness (Van Es and Knapen, 2019). Implicit learning is especially relevant in entrepreneurship, as many of the essential skills, such as opportunity recognition, risk tolerance, and adaptability, develop through real-world experiences rather than formal instruction (Dekeyser, 2008).

However, learning does not only happen when knowledge is transferred (Dewey, 1897). Argyris and Schön (1978) introduced a more nuanced understanding of learning, proposing three phases: single-loop, double-loop, and deuterio learning (Figure 13).

- Single-loop learning involves detecting and correcting errors without altering underlying values or behaviours – often called adaptive learning (Senge, 1990).
- Double-loop learning, however, requires changing underlying norms and values before correcting errors, thereby encouraging innovative thinking (Argyris, 1999).
- Deuterio learning goes further by involving reflection on the learning process itself, fostering continuous improvement and higher-order learning (Argyris, 2003).

Figure 13: Three Modes of Learning (Argyris and Schön (1978))



These theories emphasise that learning is not merely about knowledge transfer but about developing the ability to adapt and thrive in complex environments (Johnson, 1991). This insight is particularly crucial in entrepreneurship education, where learning from failure and iterative adaptation are fundamental (Cope, 2011).

2.3.2.2 How Does Learning Occur? Approaches to Entrepreneurship Education (EE)

Entrepreneurship education is complex and multifaceted, requiring innovative teaching approaches to be effective (Jones and Matlay, 2011; Nabi et al., 2017). Its success hinges not just on what is taught but also how it is taught, prompting educators to explore various pedagogical frameworks for improving student outcomes (Blenker et al., 2014; Carey and Matlay, 2011). Traditionally, EE has been primarily associated with business schools, but there is growing recognition of the value of integrating EE across diverse academic disciplines (Preedy and Jones, 2015).

A. PEDAGOGY, ANDRAGOGY, AND HEUTAGOGY

Among the fundamental frameworks shaping EE, three key approaches have emerged (Table 5):

- Pedagogy (teacher-directed learning)
- Andragogy (learner-centred adult education)
- Heutagogy (self-determined learning)

Pedagogy: Pedagogy is the traditional, teacher-centred approach to education, typically associated with structured learning environments in schools and universities. It emphasises knowledge transfer from teacher to learner and is highly structured, focusing on assessments and predefined learning outcomes (Hartree, 1984; Lippitt et al., 1984; Knowles, 1984).

Andragogy: Andragogy, popularised by Malcolm Knowles, shifts the focus from teacher-led instruction to learner-centred education, recognising that adults bring prior experiences, self-direction, and motivation to learning (Knowles, 1984). Experiential learning, problem-solving, and real-world applications are central to this approach, making it highly relevant to EE (Taylor and Kroth, 2009).

Heutagogy: Heutagogy, or self-determined learning, extends beyond andragogy by emphasising complete learner autonomy. Learners set their own objectives, design learning pathways, and self-assess progress (Blaschke, 2012; Hase and Blaschke, 2022). In EE,

heutagogical approaches enable students to develop entrepreneurial mindsets by engaging in self-directed learning, experimentation, and reflection (Blaschke, 2018).

Table 5: The distinctions between pedagogy, andragogy, and heutagogy in the context of EE (Author's Own Compilation)

| KEY PARAMETERS | PEDAGOGY | ANDRAGOGY | HEUTAGOGY |
|---|---|--|---|
| Dependence | Teacher-dependent | Shared between teacher and learner | Learner-dependent |
| Teaching Methods | Lecture-based, structured | Interactive, experiential | Self-directed, exploratory |
| Reasons and Motivations for Learning | Compliance, knowledge acquisition | Relevance, application | Self-actualisation, personal growth |
| Resources for Learning | Textbooks, classroom materials | Experiential learning opportunities, real-world projects | Diverse digital and physical resources, personal networks |
| Focus of Learning | Content mastery | Application and relevance | Exploration and discovery |
| Role of the Teacher / Lecturer | Authority figure, knowledge transmitter | Facilitator, guide | Mentor, facilitator |
| Impact of Learning Environment | Controlled, standardised | Flexible, adaptive | Dynamic, self-directed |

The discourse surrounding Entrepreneurship Education (EE) extends beyond the foundational distinctions of pedagogy, andragogy, and heutagogy, evolving into broader debates about the most effective strategies for fostering entrepreneurial skills (Gibb, 1993; Krueger and Brazeal, 1994; Krueger, Reilly, and Carsrud, 2000). Scholars such as Kuratko (2003) argue that entrepreneurship is teachable, challenging the belief that entrepreneurs are solely "born" rather than "made." This perspective underscores the role of EE in developing entrepreneurial competencies through structured educational frameworks. Conversely, others highlight the complexity of entrepreneurship, suggesting that a longitudinal and diversified educational approach is necessary (Gartner and Carter, 2003). This is because entrepreneurship encompasses a broad spectrum of skills that evolve through various learning modalities, including real-world experiences and mentorship (Matlay and Carey, 2007).

EE is generally defined as any educational initiative designed to instil entrepreneurial attitudes, competencies, and behaviours, catering to diverse student cohorts with varying curricular and instructional needs (Fayolle, Gailly, and Lassas-Clerc, 2006). While some

programmes focus on equipping students with the skills required for business venture creation, many undergraduate courses adopt a more theoretical approach, aiming to enhance entrepreneurial awareness without necessarily requiring students to start businesses (Garavan and O'Cinneide, 1994; Weber, 2012). However, conventional approaches to EE have been criticised for their rigidity and lack of flexibility in addressing the realities of entrepreneurship (Conniffe and Kennedy, 1984), echoing earlier findings by Collins, Moore, and Unwalla (1964), which pointed out the misalignment between formal education and the actual needs of entrepreneurs.

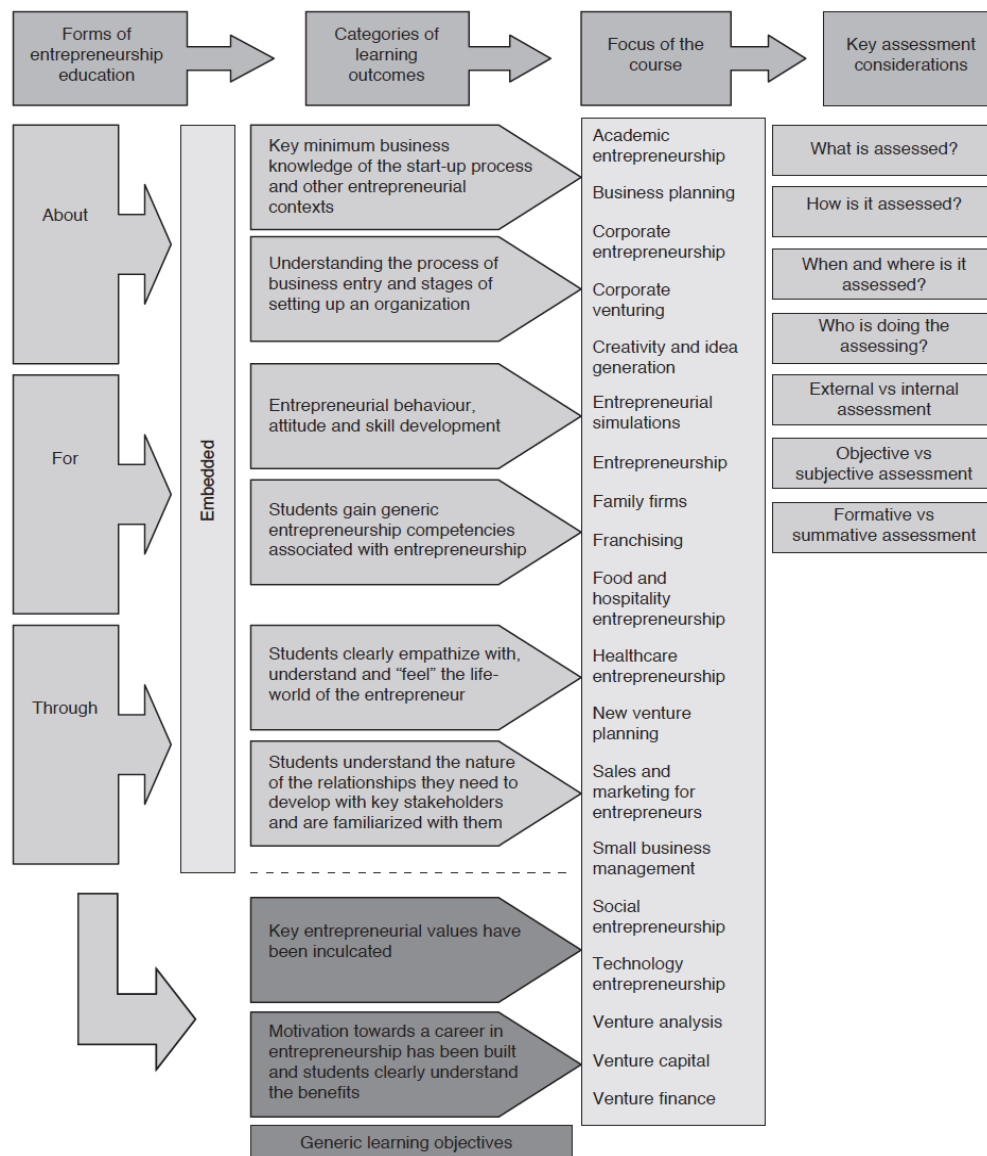
The debate over EE content and delivery has shifted over time. While the 1980s were marked by an increase in entrepreneurship programmes, the 1990s saw a stronger focus on the effectiveness of programme processes and content (Vesper and Gartner, 1997). More recently, research has moved towards a practical and longitudinal analysis of entrepreneurial learning, with increasing interest in how entrepreneurial competencies develop beyond classroom settings (Preedy, 2018). Longitudinal studies have shown that EE must move beyond static curricula to include real-world exposure and mentorship opportunities (Carey and Matlay, 2007). Scholars now advocate for a focus on entrepreneurial mindsets and attributes, calling for empirical research to assess the long-term impact of EE on entrepreneurial success (Ratten and Usmanij, 2021).

The evolving discourse highlights the dynamic nature of EE, with ongoing discussions regarding the balance between theoretical knowledge and experiential learning. The following sections explore key pedagogical debates and learning methods in EE, focusing on their implications for fostering entrepreneurial competencies across diverse educational and cultural contexts.

B. LEARNING ABOUT, LEARNING FOR, AND LEARNING THROUGH ENTREPRENEURSHIP

EE delivery methods are generally classified into three broad categories: learning about, learning for, and learning through entrepreneurship (Figure 14) (Pittaway and Edwards (2012). These classifications distinguish between theoretical knowledge acquisition and experiential, practice-based approaches (Gibb, 2002; Pittaway and Cope, 2007; Pittaway and Edwards, 2012).

Figure 14: A typology of EE and assessment practice (Pittaway and Edwards, 2012).



Learning About Entrepreneurship

This approach focuses primarily on theoretical knowledge and understanding of entrepreneurship. It is designed to introduce students to entrepreneurship concepts, including business models, market analysis, and entrepreneurial finance (Gibb, 2002; Pittaway and Edwards, 2012). The pedagogy often relies on traditional teaching methods, such as lectures, case studies, and academic readings, providing students with a foundational understanding of entrepreneurship (Blenker et al., 2014). A key criticism of this approach is its emphasis on knowledge transfer rather than skill acquisition. Assessments are typically essay-based or theoretical exams, making it difficult to measure whether

students have internalised entrepreneurial mindsets and behaviours (Pittaway and Edwards, 2012). Additionally, some scholars argue that this approach does not adequately prepare students for the unpredictability of real-world entrepreneurial challenges (Neck and Greene, 2011).

Learning For Entrepreneurship

Unlike learning about entrepreneurship, which focuses on theoretical knowledge, learning for entrepreneurship is aimed at developing students' entrepreneurial skills, regardless of whether they plan to start a business (Fayolle and Gailly, 2008). This approach integrates experiential learning opportunities, encouraging students to be innovative, adaptable, and proactive (Gibb, 2002). Learning for entrepreneurship is closely linked to the concept of "enterprise education," which focuses on instilling entrepreneurial competencies that can be applied within existing organisations (Honig, 2004). It promotes creativity, problem-solving, and opportunity recognition, equipping students with the ability to navigate complex and uncertain business environments (Gibb, 2002). The pedagogical methods associated with this approach include problem-based learning, interactive workshops, and business simulation games. However, while learning for entrepreneurship fosters an enterprising mindset, it does not necessarily provide students with the experience of running an actual business. Some scholars argue that without direct exposure to entrepreneurial ventures, students may lack the confidence and resilience required for real-world entrepreneurship (Pittaway and Cope, 2007).

Learning Through Entrepreneurship

Learning through entrepreneurship represents the most practical and immersive form of EE. It involves students actively engaging in entrepreneurial activities, such as launching startups, developing prototypes, or participating in business incubators (Gibb, 2002; Laukkanen, 2000). This experiential approach aligns with Kolb's (1984) experiential learning theory, which emphasises the role of concrete experiences in knowledge acquisition. Unlike learning about or learning for entrepreneurship, this approach places students in real-world business environments where they face real challenges and uncertainties. It enables them to develop resilience, problem-solving skills, and a deeper understanding of business

operations (Pittaway and Cope, 2007). Learning through entrepreneurship also encourages students to embrace failure as a learning opportunity, an essential aspect of entrepreneurial development (Gibb, 2002). Despite its advantages, this approach poses challenges for higher education institutions, particularly regarding scalability and assessment. Unlike traditional lecture-based courses, experiential learning requires significant resources, mentorship, and institutional support (Neck and Greene, 2011). Additionally, assessing learning outcomes can be complex, as success is not always reflected in immediate business success but rather in long-term entrepreneurial behaviours and mindsets.

C. CURRICULAR VS. EXTRACURRICULAR METHODS OF EE

Entrepreneurship Education (EE) is delivered through both curricular and extracurricular methods, each with distinct pedagogical approaches and learning outcomes (Gibb, 2002; Rae et al., 2010; Pittaway and Edwards, 2012; Morris et al., 2013). The ongoing discourse in EE debates the effectiveness of these two approaches, with scholars exploring how each contributes to entrepreneurial competency development (Nabi et al., 2017; Neck and Greene, 2011). While curricular EE is traditionally embedded within structured academic programmes, extracurricular EE offers more experiential, self-directed, and informal learning opportunities (Hannon, 2005).

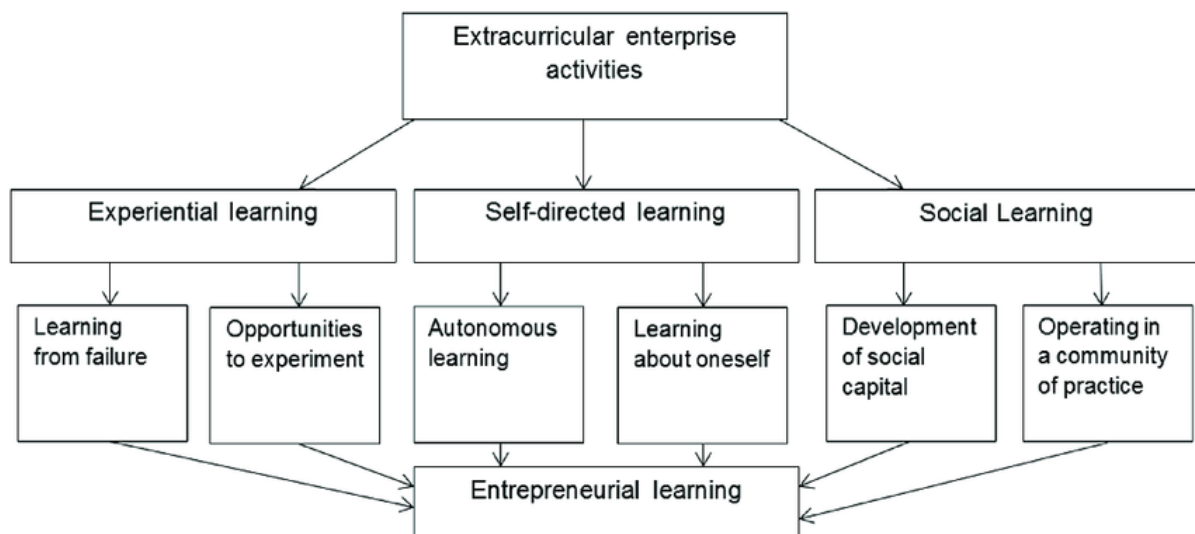
Defining Curricular and Extracurricular EE

The term "curricular" originates from the noun "curriculum," which refers to "all the courses of study offered by an educational institution" (Bartkus et al., 2012). Curricular EE is typically delivered within academic programmes, often as modules or degree pathways in business schools (Pittaway and Edwards, 2012). The primary aim is to provide structured theoretical and applied learning about entrepreneurship, with predefined learning outcomes assessed through examinations, coursework, or business plan development (Fiet, 2001).

In contrast, extracurricular EE encompasses entrepreneurial learning activities outside formal coursework, including student-led entrepreneurship societies, hackathons, guest lectures, networking events, incubators, and business competitions (Jones and Jones, 2011; NACUE, 2019; Preedy et al., 2020). These initiatives provide hands-on, real-world learning experiences that allow students to engage with the entrepreneurial ecosystem beyond the classroom (Enterprise Educators UK, 2018). Extracurricular activities are voluntary and

typically do not carry academic credit, offering students greater flexibility in self-directed entrepreneurial learning (Figure 15).

Figure 15: Extracurricular Enterprise activities. (Source: NACUE, 2019).



Both curricular and extracurricular EE play critical roles in shaping students' entrepreneurial skills, attitudes, and competencies (Gibb, 2002; Rae et al., 2010; Pittaway and Edwards, 2012). However, their impact differs in several key areas:

| Aspect | Curricular EE | Extracurricular EE |
|---------------------------|---|---|
| Structure | Formal, syllabus-based learning | Flexible, self-directed engagement |
| Assessment | Exams, coursework, business plans | No formal assessment |
| Learning Focus | Knowledge acquisition, conceptual understanding | Practical application, networking, real-world problem-solving |
| Learning Mode | Teacher-led, classroom-based | Student-led, experiential, peer-to-peer learning |
| Skill Development | Analytical thinking, business planning | Leadership, resilience, adaptability, networking |
| Student Engagement | Restricted to enrolled students | Open to broader student cohorts across disciplines |

The Strengths and Limitations of Curricular EE

Proponents of curricular EE argue that embedding entrepreneurship into formal academic programmes ensures structured, consistent, and research-based learning (Fiet, 2001). Curricular EE provides students with a theoretical foundation, exposure to business frameworks, and a systematic approach to entrepreneurial processes, helping develop entrepreneurial awareness (Pittaway et al., 2011).

However, critics argue that curricular EE tends to be rigid and theoretical, often detached from real-world entrepreneurial challenges (Honig, 2004). Business plans and case study analysis, while useful, do not always translate into entrepreneurial action, as students often focus more on passing exams rather than engaging in entrepreneurial activities (Neck and Greene, 2011). Furthermore, assessments may fail to capture entrepreneurial competencies such as resilience, risk-taking, and adaptability, which are best developed through action-oriented learning (Blenker et al., 2014).

The Value of Extracurricular EE in Entrepreneurial Competency Development

Extracurricular EE has gained traction as a powerful complement to curricular learning, fostering entrepreneurial mindsets, networks, and skills (Bartkus et al., 2012; Marsh, 1992; NACUE, 2024). Studies show that participation in extracurricular activities enhances self-efficacy, problem-solving skills, and opportunity recognition (Preedy et al., 2020). Business incubators, accelerators, and entrepreneurial competitions expose students to real-world entrepreneurial ecosystems, helping them develop practical competencies such as fundraising, negotiation, and resilience (Arranz et al., 2017).

However, challenges exist. Extracurricular EE initiatives often lack standardised learning structures, making it difficult to ensure consistent learning outcomes (Pittaway et al., 2015). Additionally, access to extracurricular activities may be unequal across institutions, with well-funded universities offering extensive entrepreneurship support networks, while resource-constrained institutions – particularly in developing economies – face financial and infrastructural limitations (Rae et al., 2012).

Contextual Considerations: EE in Different Disciplinary and Cultural Contexts

A key critique of extracurricular EE is its predominance within business schools, which can alienate students from non-business disciplines who may also have entrepreneurial aspirations (Carey and Matlay, 2011; Penaluna and Penaluna, 2008). Research suggests that embedding entrepreneurship within creative disciplines such as art, music, and fashion could foster cross-disciplinary innovation and encourage diverse entrepreneurial pathways (Penaluna and Penaluna, 2017; Bridgstock, 2019). From a global perspective, the effectiveness of both curricular and extracurricular EE is influenced by local entrepreneurial ecosystems. In developed economies such as the UK and USA, well-funded incubators,

mentorship programmes, and entrepreneurship networks support extracurricular EE (NACUE, 2019; NCEE, 2024). In contrast, African higher education institutions often face resource constraints that limit the scalability of extracurricular EE, making curricular EE a more viable approach for embedding entrepreneurship education at scale (Chimucheka, 2014; Urban and Kujinga, 2017).

Given the divergent impacts of curricular and extracurricular EE, this research examines how these two approaches influence entrepreneurial learning in different institutional and geographical contexts. By analysing how universities integrate both methods - and how local ecosystems shape their effectiveness - this study contributes to a deeper understanding of how EE can be optimised for diverse student cohorts.

D. INDIVIDUAL VS. GROUP LEARNING

The process of acquiring entrepreneurial knowledge, skills, and competencies can occur either through individual learning or group learning, each offering distinct advantages and limitations within EE.

Individual Learning in EE

Individual learning refers to a self-directed process in which learners take personal responsibility for setting learning goals, accessing resources, and evaluating their own progress (Kolb, 1984; Candy, 1991). It allows students to tailor their learning experiences based on their personal needs, preferences, and learning styles, thus enhancing autonomy and self-regulation (Honey and Mumford, 1986). From an EE perspective, individual learning is particularly valuable for self-motivated learners, as it fosters problem-solving skills, self-reflection, and independent decision-making—all of which are critical entrepreneurial competencies (Gibb, 2002; Rae, 2010).

Advancements in digital technologies have further enabled individual learning through self-paced online modules, reflective journals, and digital simulations, which allow students to develop entrepreneurial knowledge at their own pace (Ratten and Jones, 2021). This is particularly relevant in African EE contexts, where digital entrepreneurship training is gaining traction as a means of addressing barriers to formal EE (Chimucheka, 2014; Iwu et al., 2019). However, critics argue that individual learning lacks the interactive engagement

necessary for developing key soft skills such as negotiation, networking, and leadership, which are fundamental for entrepreneurial success (Urban and Kujinga, 2017).

Group Learning in EE

Group learning, by contrast, involves collaborative engagement, where students work collectively to achieve shared learning objectives (Dillenbourg, 1999). Through cooperative learning strategies – such as peer discussions, case-based learning, business simulations, and team-based projects – students develop social learning experiences that encourage knowledge-sharing, collaborative problem-solving, and entrepreneurial creativity (Slavin, 1996; Johnson and Johnson, 1994).

Group-based approaches are widely endorsed in experiential EE models, where real-world entrepreneurial challenges are tackled through teamwork and cross-disciplinary collaboration (Pittaway and Cope, 2007; Mwasalwiba, 2010). Research suggests that in entrepreneurial ecosystems with strong community networks, group learning fosters greater knowledge exchange, mentorship, and innovation, particularly in emerging markets where social capital plays a vital role in entrepreneurial success (Arranz et al., 2017; Maragh, 2024). However, group learning can sometimes hinder individual accountability and lead to imbalanced participation, with more confident students dominating discussions, while others remain passive (Michaelsen, 2004).

Implications for EE

The distinction between individual and group learning has significant pedagogical implications for EE, particularly regarding curriculum design and instructional delivery (Neck and Greene, 2011). While individual learning enhances self-reliance and critical thinking, group learning promotes teamwork, leadership, and communication skills, which are crucial for navigating real-world entrepreneurial environments (Fayolle and Gailly, 2008). From a practical standpoint, EE educators should aim to blend both approaches strategically, integrating self-directed learning components (e.g., online courses, independent projects, and personal business planning) alongside collaborative experiences (e.g., hackathons, business incubators, and interdisciplinary entrepreneurship challenges). Moreover, in resource-constrained environments, such as many African and developing country contexts,

group learning is particularly valuable for fostering peer mentorship, knowledge exchange, and collective problem-solving, which can compensate for limited access to formal EE infrastructure (Urban and Kujinga, 2017).

Ultimately, the effectiveness of individual vs. group learning depends on the educational context, student demographics, and the specific entrepreneurial competencies being developed (Ratten and Usmanij, 2021). Future research should further investigate how blended learning models – incorporating both individual and group elements – enhance entrepreneurial capability in different cultural and economic settings.

E. EXPERIENTIAL LEARNING VS TRADITIONAL INSTRUCTIONAL METHODS:

Entrepreneurship education (EE) has traditionally relied on instructional teaching methods such as lectures and textbooks, which offer structured learning frameworks that introduce theoretical concepts, case studies, and business practices (Drucker, 1985). While these methods provide conceptual foundations, they have been criticised for their passive nature and for failing to foster practical entrepreneurial skills required in dynamic business environments (Rae, 2005).

Traditional methods tend to promote rote learning, where students memorise concepts rather than critically engaging with the material (McKeachie and Svinicki, 2006). Critics argue that this approach does not cultivate entrepreneurial creativity, resilience, or problem-solving abilities, which are critical for venture creation and business growth (Gibb, 2002). As a result, there has been a growing emphasis on experiential learning approaches that integrate practical, hands-on experiences into EE curricula (Kolb, 1984; Neck and Greene, 2011).

Experiential learning is rooted in constructivist learning theories and emphasises active engagement, real-world application, and learning by doing (Kolb, 1984; Dewey, 1938). In EE, experiential learning manifests through methods such as Business simulations (Gibb and Hannon, 2006), Internships and placements (Pittaway and Cope, 2007), Entrepreneurial incubators and accelerators (Preedy and Jones, 2017) and Venture creation programmes (Neck and Greene, 2011)

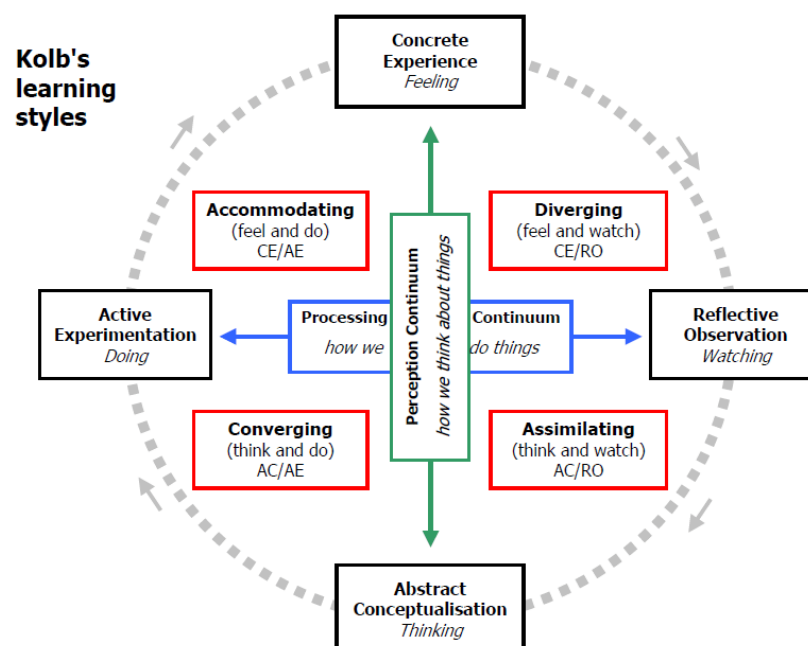
These methods bridge the gap between theoretical knowledge and practical application, enabling students to develop entrepreneurial skills through direct experience (Pittaway and Edwards, 2012).

i. Kolb's Learning Cycle

David Kolb (1984) proposed a four-stage learning cycle that underscores the importance of experiential learning (Figure 16):

- Concrete experience – Engaging in a hands-on entrepreneurial task
- Reflective observation – Analysing what happened and why
- Abstract conceptualisation – Forming conclusions from the experience
- Active experimentation – Applying insights to new situations

Figure 16: Kolb's Learning Styles (Kolb, 1884).



Kolb's model has been widely adopted in EE, influencing work-based learning programmes, entrepreneurial internships, and business simulations (Gibb, 2002). However, some scholars argue that the model is too linear and does not account for the unpredictable nature of entrepreneurship (Cope, 2011).

ii. CreAction: Action-Oriented Learning

CreAction, a practical extension of experiential learning, emerged from entrepreneurial cognition research (Kiefer et al., 2010). Unlike Kolb's reflective cycle, CreAction advocates

immediate action, encouraging students to experiment with business ideas without fear of failure (Kuratko, 2005), engage in iterative problem-solving and real-time decision-making (Schlesinger, 2007) and learn through rapid prototyping and testing of ideas (Rae, 2005). This approach aligns with effectuation theory, which posits that entrepreneurs work with available means rather than fixed goals, making decisions based on affordable loss rather than expected return (Sarasvathy, 2001).

iii. Learning: Learning in Context

Situated learning theory (Lave and Wenger, 1991) argues that knowledge is best acquired in real-world contexts, through participation in communities of practice. In EE, this means that:

- Learning happens in the wider environment through mentorship, networking, and industry collaboration (Chatti et al., 2021).
- Digital tools and AI-driven learning platforms have transformed experiential learning by creating virtual entrepreneurial communities (Hannafin et al., 2022).
- Social learning in African entrepreneurship ecosystems fosters peer-to-peer knowledge sharing (Urban and Kujinga, 2017).

Criticism of Experiential Learning

Despite its advantages, experiential learning faces several challenges such as lack of structure and standardisation. Many experiential learning activities lack formal assessment criteria, making it difficult to measure learning outcomes (Higgins and Elliott, 2011). Moreover, additionally, while business simulations and incubators work well in small cohorts, they are difficult to implement in large class sizes or resource-constrained environments (Gibb and Hannon, 2006). There are also psychometric concerns with learning styles. For instance, the Learning Style Inventory (LSI) developed to assess learning preferences in Kolb's model has been criticised for low reliability and validity (Kolb and Kolb, 2009; Garner, 2000). Additionally, while experiential learning is widely promoted in Western EE models, it faces challenges in African contexts due to:

- Limited access to entrepreneurial ecosystems (Chimucheka, 2014).
- Lack of institutional support for venture creation (Iwu et al., 2019).
- Financial constraints on student-led start-ups (Maragh, 2024).

Integrating Multiple Learning Styles in EE

To address the limitations of both traditional and experiential learning, EE scholars advocate for blended approaches that recognise students' diverse intelligences (Gardner, 2000, p.28). Gardner's Theory of Multiple Intelligences (Figure 17) suggests that learners possess different cognitive strengths, including:

Figure 17: Theory of Multiple Intelligences (Gardner, 2000, p.28)



- Linguistic and logical intelligence – Benefiting from traditional lectures and case studies.
- Visual-spatial and bodily-kinesthetic intelligence – Excelling in hands-on learning, prototyping, and interactive simulations.
- Interpersonal intelligence – Developing best through peer learning, networking, and mentorship (Gardner, 1987).

Recognising that linguistic and logical-mathematical intelligences are typically most valued in educational and societal contexts, Gardner (2000) argues that the learning process ought to be tailored to individuals' different intelligences, regardless. This is particularly apparent in students with dyslexia where, for example, a person with strong linguistic intelligence may do well just by reading and writing texts, while a person with strong visual-spatial intelligence may not benefit from text-based approaches in the same way they might benefit from visual aids and hands-on activities. Gardner makes the point that it is importance to recognise and value different types of intelligences and then adapt teaching methods to meet the diverse needs of different types of learners (Gardner, 1987).

2.3.2.3 A Critical Review of Predominant Practices in Entrepreneurship Education (EE)

Education Entrepreneurship Education (EE) has evolved significantly over the past few decades, yet predominant practices still heavily favour theoretical instruction over experiential learning. As illustrated in Figure 14 (Pittaway and Edwards, 2012), the taxonomy

of EE and assessment methods reveals the continued dominance of the "learning about" approach in EE practices, particularly in the UK and USA. While this traditional approach provides students with foundational knowledge about entrepreneurship, it has been widely critiqued for its failure to adequately prepare students for entrepreneurial decision-making and action (Blenker et al., 2014; Nabi et al., 2017).

Theoretical Foundations vs. Practical Application

One of the key limitations of traditional EE models is their heavy reliance on classroom-based instruction, which often prioritises entrepreneurial knowledge over entrepreneurial practice (Pittaway and Cope, 2007). Many university programmes focus on business plan writing (Honig, 2004), financial modelling (Fayolle and Gailly, 2008) or case study analysis (Neck and Greene, 2011). These methods, while academically rigorous, often provide limited real-world application (Neck and Corbett, 2018). Critics argue that this passive learning environment leads students to memorise concepts rather than develop real entrepreneurial competencies (Henry et al., 2005; Pittaway and Cope, 2007).

To address these limitations, scholars such as Neck and Greene (2011) advocate for a paradigm shift towards an entrepreneurial cognition approach, which focuses on understanding how individuals think and behave entrepreneurially. This approach aligns with Neisser's (1967) definition of cognition, which encompasses perception, memory, and problem-solving – all of which are critical to entrepreneurial success (Mitchell et al., 2002). By prioritising entrepreneurial cognition, EE shifts from merely imparting theoretical knowledge to developing cognitive abilities that enable individuals to navigate uncertainty (Krueger, 2007), identify and evaluate opportunities (Shane and Venkataraman, 2000), and take calculated risks and make informed decisions (Mitchell et al., 2002).

Building on entrepreneurial cognition, contemporary EE pedagogical strategies should integrate "thinking and doing" activities to simulate real-world entrepreneurial experiences (Neck and Greene, 2011). Several innovative teaching methods have been proposed such as Case Studies and Business Simulations – which help to improve decision-making under uncertainty (Hindle and Cutting, 2002; Pittaway and Cope, 2007); Design-Based Learning – which fosters creativity and innovation through prototyping and problem-solving (Brown,

2009; Rasmussen and Nybye, 2013); and Experiential Learning and Reflection – Based on Kolb's (1984) learning cycle, which engages students in hands-on venture creation, followed by structured reflection (Rae, 2005; Pittaway et al., 2015). These methods allow students to develop essential entrepreneurial competencies, such as opportunity recognition (Baron, 2006), risk-taking and adaptability (Bacigalupo et al., 2016), and problem-solving in dynamic environments (Gibb, 2002).

Contextual Considerations: EE in Diverse Entrepreneurial Ecosystems

While much of EE literature is based on Western educational models, research increasingly acknowledges that entrepreneurial education must be tailored to local contexts (Acs, Autio, and Szerb, 2014). For example, in African economies, where necessity-driven entrepreneurship is more prevalent than opportunity-driven entrepreneurship, traditional EE models are often misaligned with local entrepreneurial realities (GEM, 2020). Instead, African universities should focus on informal entrepreneurship models (Chimucheka, 2014), resource constraints and indigenous innovation (Urban and Kujinga, 2017) and community-based problem-solving approaches (Mason and Brown, 2014). The "thinking and doing" approach aligns well with these realities, encouraging students to engage in real-world learning despite resource scarcity and market volatility (Iwu et al., 2019).

Measuring Entrepreneurial Learning

Since education is intended to produce specific outcomes, measuring the impact of EE is critical. As Joan Freeman (2007) stated: *"If you can't measure it, it doesn't exist."* Similarly, Peter Drucker (1993) argued that *"If you can't measure it, you can't improve it."* Thus, several approaches have been developed to evaluate entrepreneurial learning outcomes. One of these is changes in entrepreneurial intentions, which is measured using models like the Theory of Planned Behaviour (Ajzen, 1991) (Bae et al., 2014). The other method is to establish skill acquisition through experiential learning, assessed via competency-based evaluations (Rideout and Gray, 2013). Lastly, the impact of EE on business creation and performance which can be tracked using longitudinal studies (Fayolle and Gailly, 2008).

However, measuring EE effectiveness remains a challenge, as learning objectives in EE are sometimes vague (McMullan et al., 2001). Additionally, success is often difficult to quantify.

For instance, should it be based on business creation, job generation, or revenue growth? (Storey, 2000). Lastly, not all EE is aimed at immediate business creation as the purpose of EE is to develop entrepreneurial skills, not necessarily to start businesses immediately (Fayolle, Gailly, and Lassas-Clerc, 2006). Despite these challenges, there remains general consensus that evaluating EE programmes is essential (OECD, 2007; EC, 2014). Indeed, the QAA (2018) also advocates for developing clear learning objectives for EE, using multiple assessment methods, including qualitative self-reflection and quantitative performance metrics and tailoring EE measurement frameworks to different cultural and institutional contexts.

In a nutshell, the debate between traditional and experiential learning reflects broader pedagogical shifts in higher education. While traditional instructional methods provide structured theoretical foundations, experiential approaches promote practical application and entrepreneurial mindset development. However, neither approach alone is sufficient. For EE to be truly impactful, there is a need for;

- Blended learning models – integrating theory, practice, and reflection (Neck and Corbett, 2018)
- Contextual adaptation – EE programmes should be tailored to local entrepreneurial ecosystems (Urban and Kujinga, 2017)
- Comprehensive measurement frameworks – assessing EE effectiveness through both qualitative and quantitative methods (Fayolle et al., 2016).

However, the effectiveness of EE is not solely determined by pedagogical approaches but is also shaped by the broader entrepreneurship ecosystem in which learning occurs. The next section explores the concept of entrepreneurship ecosystems, examining how institutional, cultural, economic, and policy environments influence entrepreneurial activity and, in turn, the effectiveness of EE.

2.4 ENTREPRENEURSHIP ECOSYSTEMS

The concept of entrepreneurship ecosystems has gained prominence in recent decades as scholars and policymakers seek to understand the conditions that foster entrepreneurial success. The term ecosystem, originally drawn from biology, describes a network of interdependent organisms and their environment (Tansley, 1935). In entrepreneurship, this metaphor extends to the dynamic and interdependent relationships among various actors – entrepreneurs, investors, policymakers, support organisations, and educational institutions – that collectively shape the entrepreneurial environment (Isenberg, 2010, 2011; Acs et al., 2014).

Defining Entrepreneurship Ecosystems

The term "entrepreneurial ecosystem" was first popularised by Moore (1993), who argued that businesses, like organisms, thrive in an interconnected system rather than in isolation. Later, Isenberg (2010, 2011) provided a more structured framework, identifying key elements such as markets, policy, human capital, finance, and culture that support entrepreneurial activity. Since then, the concept has been widely adopted in entrepreneurship research, with scholars exploring how these ecosystems vary across different regions and industries (Berger and Kuckertz, 2016; Brown and Mason, 2017; Kuckertz, 2019). Entrepreneurial ecosystems are not homogenous. They vary in composition, structure, and function depending on contextual factors such as economic development, industry specialisation, and cultural norms (Autio et al., 2014; Spigel, 2017). For example, Silicon Valley is often cited as the prototypical high-growth entrepreneurship ecosystem due to its concentration of venture capital, research institutions, and innovation-driven culture (Saxenian, 1994). However, emerging economies, including African nations, exhibit different ecosystem dynamics shaped by factors such as informal entrepreneurship, limited access to capital, and regulatory barriers (Chimucheka, 2014; Urban and Kujinga, 2017).

Core Attributes of Entrepreneurial Ecosystems

Despite regional differences, vibrant entrepreneurship ecosystems share several core attributes that contribute to their sustainability and success. These generally include:

1. **Supportive Regulatory Environment** – Government policies, including tax incentives, startup-friendly regulations, and intellectual property laws, play a critical role in fostering entrepreneurship (Stam, 2015).
2. **Access to Capital** – Availability of funding sources, such as angel investors, venture capital, and government grants, influences startup success rates (Autio and Levie, 2017).
3. **Entrepreneurial Culture** – Societal attitudes towards risk-taking, innovation, and failure impact entrepreneurial activity (Fritsch and Storey, 2014).
4. **Infrastructure and Market Access** – Reliable transportation, digital infrastructure, and access to customers enable businesses to scale (Acs et al., 2014).
5. **Human Capital and Talent** – Entrepreneurial education, skills training, and mentorship networks contribute to the sustainability of entrepreneurial ventures (Mason and Brown, 2014).
6. **Collaboration and Knowledge Exchange** – Networks, incubators, and accelerators facilitate idea-sharing and business development (Spigel, 2017).

Understanding these components is essential not only for entrepreneurs navigating these ecosystems but also for higher education institutions designing EE programmes. Universities must ensure that graduates are equipped with the skills and knowledge to thrive within their respective entrepreneurial environments.

ENTREPRENEURSHIP ECOSYSTEMS IN THE AFRICAN CONTEXT

While much of the entrepreneurship ecosystem literature is rooted in Western economies, research increasingly highlights the distinct characteristics of ecosystems in Africa and other emerging markets (Naudé, 2011; Sautet, 2013; Peter and Olufemi, 2023; Gómez, et al., 2023). Unlike well-established ecosystems such as Silicon Valley, African entrepreneurship ecosystems often operate within resource-constrained environments, where informal businesses dominate, access to finance is limited, and regulatory challenges persist (Chimucheka, 2014; Urban and Kujinga, 2017).

Nonetheless, entrepreneurial ecosystems in Africa have gained significant traction over the past decade, driven by increased venture capital (VC) investment, technological

advancements, and a growing pool of young, innovative entrepreneurs. The “Big Four” countries – Kenya, Nigeria, Egypt, and South Africa – accounted for 84% of total VC funding in 2024 (Partech Africa, 2024). These nations have developed thriving startup ecosystems that attract international investors, foster technological innovation, and serve as regional hubs for entrepreneurship. However, Uganda also presents an emerging entrepreneurial landscape with unique characteristics that distinguish it from its larger counterparts (Table 6).

Kenya: The Silicon Savannah

Kenya's entrepreneurship ecosystem, often referred to as the "Silicon Savannah," is one of Africa's most vibrant startup hubs. Nairobi serves as a regional centre for fintech, agritech, and mobile innovations, largely fuelled by its mobile money revolution (e.g., M-Pesa) and a strong infrastructure supporting digital finance (Ndemo and Weiss, 2017). The Kenyan government has also played a key role in fostering an enabling business environment through regulatory reforms, startup-friendly policies, and innovation hubs such as iHub and Nailab (Isenberg, 2010). Nairobi's ecosystem benefits from foreign direct investment (FDI) and strong connections with global venture funds, making it a preferred destination for scaling startups.

Nigeria: Africa's Largest Market for Startups

Nigeria, Africa's largest economy and most populous country, boasts a dynamic startup ecosystem, particularly in Lagos, which has become a West African powerhouse for fintech and e-commerce (Peter and Olufemi, 2023). The Nigerian startup scene is driven by a large digitally savvy population, a rapidly growing middle class, and access to major funding rounds from global investors. Flutterwave, Paystack, and Interswitch are among the notable startups that have attracted multimillion-dollar investments, cementing Nigeria's reputation as Africa's fintech capital (Partech Africa, 2024). Despite regulatory challenges, Nigeria continues to attract VC funding, with its startups receiving the highest share of Africa's startup investments in 2024.

Egypt: The Emerging North African Tech Hub

Egypt has rapidly grown into a startup powerhouse, thanks to government-backed startup incentives, infrastructure investments, and a thriving tech ecosystem (Kuckertz, 2019). Cairo has become a hub for startups in e-commerce, logistics, and fintech, benefiting from a young, digitally literate population and increasing international interest. The Egyptian government's Central Bank Fintech Sandbox and Venture Capital Support have further encouraged entrepreneurship, making Egypt a key player in Africa's startup scene (Mason and Brown, 2014). Unlike Kenya and Nigeria, Egypt's ecosystem has a strong corporate-backed funding model, where large firms and banks actively invest in startups.

South Africa: The Most Developed Ecosystem

South Africa boasts of the most developed entrepreneurial ecosystem in Africa, with a mature financial sector, robust legal frameworks, and world-class infrastructure (Urban and Kujinga, 2017). Johannesburg, Cape Town, and Pretoria serve as leading hubs for AI, biotech, and cleantech startups, attracting both domestic and international investors. Cape Town, often referred to as "Africa's Tech Capital," has a particularly strong ecosystem supporting high-growth startups in AI and blockchain technology. South Africa's corporate venture capital (CVC) model also sets it apart, as large enterprises partner with startups to drive innovation (Acs, Autio, and Szerb, 2014). However, despite its advantages, South Africa faces high youth unemployment and economic disparities, which pose challenges to the long-term sustainability of its startup ecosystem.

Uganda: A Rising Entrepreneurial Hotspot

While Uganda is not yet considered one of Africa's top four startup hubs, it has shown tremendous entrepreneurial potential, particularly in agritech, fintech, and social entrepreneurship. Kampala has emerged as a growing hub for early-stage startups, supported by initiatives such as the Innovation Village Kampala and Outbox Hub (Chimucheka, 2014). Unlike the Big Four, Uganda's ecosystem is predominantly necessity-driven, with many entrepreneurs focusing on small-scale enterprises due to high youth unemployment and limited formal job opportunities (GEM, 2020). However, Uganda's startup landscape is evolving rapidly, with fintech startups like SafeBoda (ride-hailing and

payments) and Sio Valley Technologies (agriculture) and many others attracting regional investments (Partech Africa, 2024). The Uganda Startup Policy, which is being explored as a means of creating an enabling environment for entrepreneurs, aims to improve access to finance, simplify business registration, and strengthen startup-supporting policies. Moreover, Uganda's strong ties with regional markets in East Africa make it a key player in cross-border trade, further enhancing its startup potential.

Comparative Insights: The Big Four vs. Uganda

While Kenya, Nigeria, Egypt, and South Africa dominate Africa's startup landscape due to their access to capital, population size, and market attractiveness, Uganda represents an emerging ecosystem that offers a different model of entrepreneurship – one that is more necessity-driven but increasingly shifting toward high-growth startups.

Table 6: key players in the African Entrepreneurship Ecosystems. (Source: Own compilation)

| Factor | Kenya | Nigeria | Egypt | South Africa | Uganda |
|---------------------------------|-----------------------------------|---------------------------------------|------------------------------------|--|---|
| Key Sectors | Fintech, Agritech, AI | Fintech, E-commerce | Logistics, E-commerce | AI, Biotech, Fintech | Agritech, Fintech, Social Entrepreneurship. |
| Major Startup City / Hub | Nairobi (Silicon Savannah) | Lagos | Cairo | Cape Town, Johannesburg | Kampala |
| Funding Level | High (VC and Foreign Investments) | Highest in Africa (Global VC) | Rapidly Growing | Strongest Corporate Venture Capital | Emerging (Early-Stage Funding) |
| Market Drivers | Mobile Money, Innovation Hubs | Large Population, Tech Adoption | Government Support, Tech Literacy | Developed Financial System | Regional Trade, Youth-Driven |
| Challenges | Regulatory Uncertainty | Infrastructure Gaps, Regulatory Risks | Bureaucracy, Currency Fluctuations | High Unemployment, Economic Inequality | Access to Funding, Market Size |

Given the diversity of entrepreneurship ecosystems, this research seeks to examine how EE aligns with the realities of different entrepreneurial environments. Africa's entrepreneurial ecosystem is diverse and dynamic, with the Big Four leading in funding and startup density, while Uganda and other emerging ecosystems are rapidly growing, particularly in grassroots and necessity-driven entrepreneurship. Uganda's regional integration, youthful population, and policy initiatives provide a strong foundation for future growth, positioning it as a rising player in Africa's startup ecosystem. As this research examines entrepreneurship education

and ecosystems, understanding these regional differences are crucial for designing EE models that are adaptable and context specific. Unlike a one-size-fits-all approach, EE in Africa must be tailored to both high-growth startup ecosystems and more necessity-driven entrepreneurial landscapes. The next section delves deeper into the key types of entrepreneurship ecosystems, examining their structures, functions, and the role they play in supporting entrepreneurial activity.

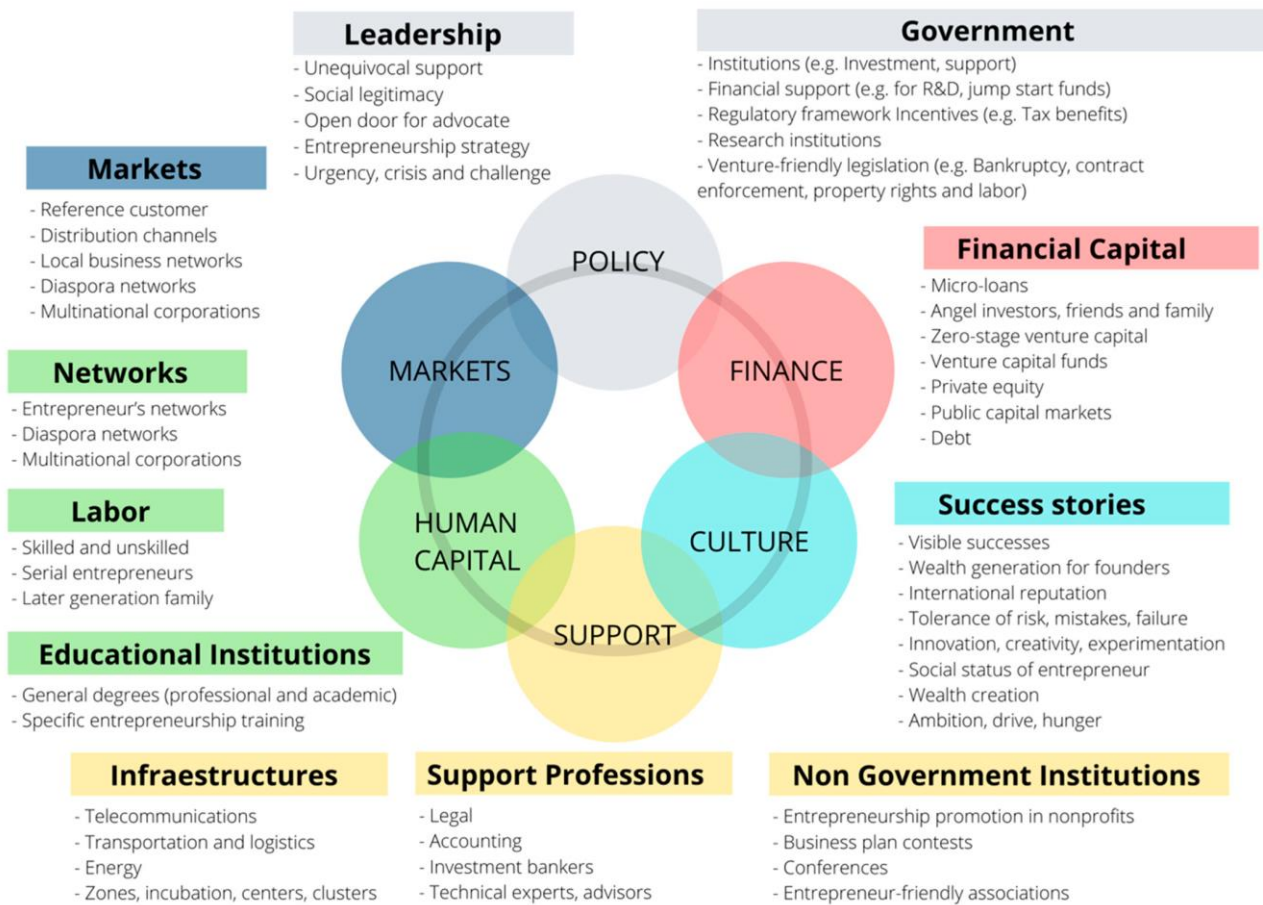
2.4.1 ECOSYSTEM DOMAINS BY ISENBERG

Daniel Isenberg's Domains of Entrepreneurship Ecosystems model is a key framework for understanding the complex interactions that shape entrepreneurial environments (Isenberg, 2010). His model identifies six key domains – culture, finance, policy, support, human capital, markets, and institutional infrastructure – that collectively define an entrepreneurship ecosystem (Isenberg, 2010) (Figure 18). By drawing parallels with natural ecosystems, Isenberg highlights the biotic and abiotic factors that influence entrepreneurial development.

- **Biotic factors** refer to the living components of the ecosystem, including entrepreneurs, investors, educators, and policymakers. These actors directly interact and shape entrepreneurship by providing resources, support, and mentorship.
- **Abiotic factors** refer to non-living components, such as infrastructure, regulatory frameworks, cultural norms, and technological advancements. These elements establish the environment and conditions that determine the ease or difficulty of entrepreneurial success.

Isenberg's model is widely regarded as a practical tool for diagnosing and improving entrepreneurship ecosystems, particularly for policymakers, educators, and business leaders seeking to stimulate economic growth through entrepreneurship (Spigel, 2017). By providing a structured framework, the model enables stakeholders to identify gaps and areas for intervention, allowing for a more holistic and systemic approach to entrepreneurship development (Acs et al., 2014).

Figure 18: Ecosystem Domains by Isenberg (2010)



A key takeaway from ecosystem frameworks, including Isenberg's, is the need for EE programs to be adapted to the realities of local ecosystems. As Michael Porter (1998) suggests, policymakers should focus on reinforcing existing clusters rather than artificially creating new ones, leveraging local advantages and established networks to build stronger entrepreneurial ecosystems (Porter, 1998).

This research sought to evaluate how different entrepreneurial ecosystems affect the design and outcomes of EE programs, exploring how universities can better prepare graduates to navigate and thrive within their unique entrepreneurial environments. The next section examines each of Isenberg's six domains in greater detail, exploring their relevance to EE and their impact on the development of entrepreneurial competencies among students and graduates.

A. HUMAN CAPITAL: ITS CENTRALITY IN ENTREPRENEURSHIP ECOSYSTEMS

Entrepreneurial ecosystems are fundamentally shaped by the individuals who drive business creation, innovation, and market transformation (Isenberg, 2011; Mason and Brown, 2014). While early discussions on entrepreneurship ecosystems primarily focused on startups and infrastructure (Isenberg, 2011), contemporary scholarship recognises human capital as a crucial determinant of ecosystem vitality (Spigel, 2017; Audretsch and Belitski, 2017). Human capital refers to the skills, knowledge, competencies, and attributes possessed by individuals within a given workforce (Schultz, 1959; 1961; Becker, 1964). In Isenberg's domains of entrepreneurship ecosystems, human capital encompasses both labour availability and educational institutions that facilitate workforce development through formal education, training programs, and skill-building initiatives (Isenberg, 2010).

A high-quality and diverse talent pool contributes significantly to entrepreneurial success by driving innovation, enhancing productivity, and fostering economic growth (Stam, 2015). This assertion is supported by Human Capital Theory, which posits that individuals with higher levels of education and skills have a greater propensity for entrepreneurial success (Davidsson and Honig, 2003). Global entrepreneurship cities such as Boston, Seattle, Berlin, Tel Aviv, London, and Silicon Valley have benefited immensely from specialised talent pools, which provide the necessary expertise and resources for scaling startups and high-growth ventures (Florida, 2002; Audretsch and Feldman, 2004). In contrast, developing economies face challenges in cultivating and retaining high-quality human capital due to education system limitations, skills gaps, and brain drain (Shane, 2009; Foss et al., 2011). This challenge is particularly relevant in sub-Saharan Africa, where entrepreneurship is often necessity-driven rather than opportunity-driven (GEM, 2020). The lack of structured entrepreneurial education and limited access to industry-driven training programs further exacerbates disparities in entrepreneurial outcomes across different ecosystems (Chimucheka, 2014; Urban and Kujinga, 2017).

The Role of Educational Institutions in Human Capital Development

Educational institutions – universities, colleges, and vocational training centres – play a pivotal role in shaping entrepreneurial ecosystems by equipping individuals with the

necessary skills, knowledge, and entrepreneurial mindset (Bellu et al., 1990; Gimeno et al., 1997). These institutions contribute to ecosystem development through:

- **Entrepreneurship Education (EE) Programs:** Designed to instil entrepreneurial competencies, these programs bridge the gap between theoretical knowledge and practical application (Davidsson and Honig, 2003; Fayolle and Gailly, 2015).
- **Industry-Academic Collaborations:** Universities facilitate knowledge transfer through business incubators, accelerators, and research-commercialisation initiatives, fostering innovation and startup development (Etzkowitz and Leydesdorff, 2000; Herndon, 2008).
- **Technology Transfer and Commercialisation:** Higher education institutions play a critical role in patenting, licensing, and spin-off creation, ensuring that research-driven innovations reach the market (Hannon and Bolton, 2020).

However, regional disparities in education access and quality continue to influence the composition of entrepreneurial ecosystems. For example, while the UK has strong industry-academic linkages, many African countries struggle with curriculum relevance and outdated pedagogical methods that fail to align with the needs of modern entrepreneurship (Wennekers and Thurik, 1999).

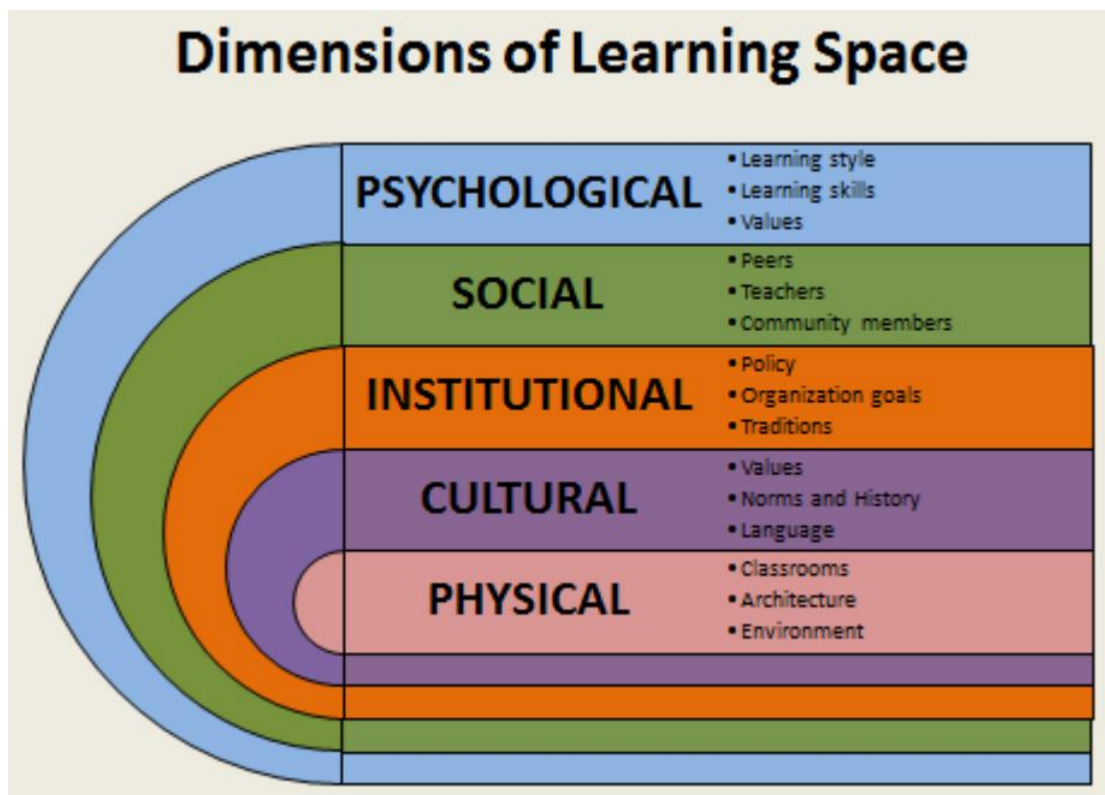
The Significance of Learning Context in Entrepreneurship Ecosystems

Learning is not an isolated activity; it occurs within a broader contextual framework that influences knowledge acquisition and application. Therefore, “if learning is to occur, it requires a space for it to take place” (Gibb and Hannon, 2006). Recognising that entrepreneurship is not merely about business creation but also about understanding the intricate web of interactions within an ecosystem, educational institutions must tailor their approaches to align with the complexities of entrepreneurial environments (Spigel, 2017).

This section explores Kolb (2007)’s concept of Dimensions of Learning Space (Figure 19) and how it has been explored by several scholars across different contexts, reflecting the multifaceted nature of educational environments.

- Physical Dimension:** The most obvious learning dimension in which learning occurs is the physical dimension, which refers to the tangible environment. It includes factors such as the classroom layout, seating arrangements, lighting, and accessibility, each of which may significantly impact a student's engagement, comfort, and ability to focus (Gibb and Hannon, 2006). To facilitating more effective knowledge acquisition and retention, Gibb and Hannon (2006) advocate for a well-designed physical learning space that fosters collaboration, creativity, and active participation among learners.
- Cultural Dimension:** Culture shapes entrepreneurial attitudes, risk-taking propensity, and innovation practices. The integration of diverse cultural perspectives into EE ensures that students develop global competency and adaptability (Hofstede, 1980). This is particularly relevant for Uganda, a highly multicultural society with over 60 ethnic groups, and for Birmingham, one of the most diverse cities in the UK (Gibb and Hannon, 2006).

Figure 19: Dimensions of Learning Space (Kolb, 2007).



- **Institutional Dimensions:** Academic institutions do not exist in isolation. The institutional framework – including curriculum design, policy frameworks, and administrative support – determines the effectiveness of entrepreneurship education (Gibb and Hannon, 2006). Universities need to work collaboratively with industry and policymakers to align EE with real-world business needs
- **Social and psychological dimensions:** Peer interactions, teamwork, and mentorship opportunities significantly influence the learning process. A supportive social environment fosters knowledge sharing, collaboration, and collective problem-solving, all of which are critical in entrepreneurship (Gibb and Hannon, 2006).

Theoretical Perspectives on Learning in Entrepreneurship Ecosystems

a) Kurt Lewin's Field Theory

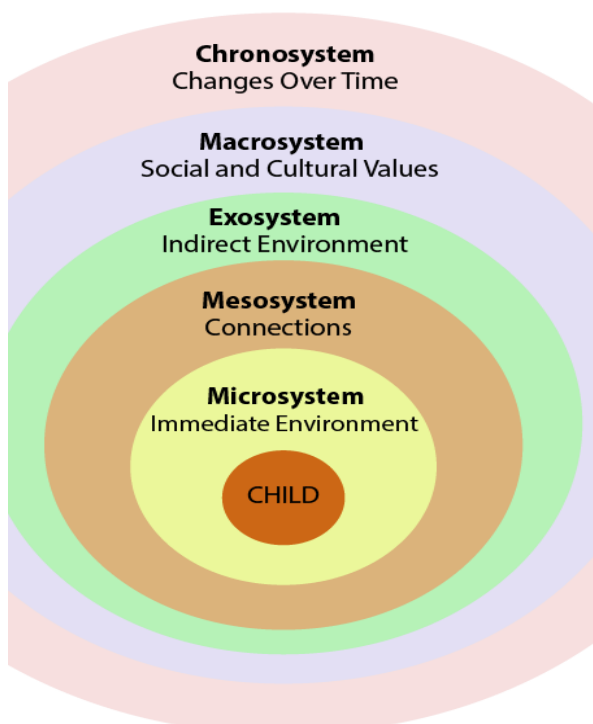
Lewin (1951) posits that behaviour is shaped by both the individual and their environment. In the context of EE, students' learning outcomes are influenced by institutional culture, industry connections, and access to entrepreneurial resources.

b) Bronfenbrenner's Ecological Systems Theory:

Bronfenbrenner (1977, 1979) expands on Lewin's work by conceptualising nested environmental systems that affect learning [Figure 20] (Bronfenbrenner, 1977, 1979) to

Figure 20: Bronfenbrenner's Ecological Systems Theory
(Bronfenbrenner, 1992)

include the following layers:



- Microsystem: Immediate environment (e.g., university, incubators).
- Mesosystem: Extended networks (e.g., industry partnerships).
- Exosystem: Institutional and policy frameworks.
- Macrosystem: Societal and cultural norms.
- Chronosystem: Evolution of these influences over time.

- c) **Situated Learning Theory:** While both Bronfenbrenner and Lewin emphasise the interconnectedness of the various nested structures in shaping learner's experiences and development, Lave and Wenger (1991) argue that learning is a social process embedded within "communities of practice". This perspective suggests that entrepreneurship education should prioritise industry immersion, internships, and mentorship opportunities rather than just classroom-based instruction.
- d) **Theory of Knowledge Creation:** Slightly similar to situated learning theory, Nonaka and Konno (1998) introduce the Japanese concept of "ba", a shared space for knowledge co-creation. This approach fosters an open learning environment where students, faculty, and entrepreneurs collaborate to transform tacit knowledge into explicit innovations (Nonaka and Konno, 1998).

A. POLICY: ITS ROLE IN SHAPING ENTREPRENEURSHIP ECOSYSTEMS

Entrepreneurship ecosystems have become a key focal point for policymakers, supranational bodies, and economic development agencies as a means to drive economic growth, innovation, and poverty reduction (Coutu, 2014; Mazzarol, 2014; WEF, 2014; Stam, 2015). Government policies play a critical role in shaping the environment for entrepreneurship, either fostering innovation and business growth or imposing regulatory constraints that inhibit entrepreneurial activity (Isenberg, 2011; Henry, Hill, and Leitch, 2005). Effective entrepreneurship policies facilitate access to capital, reduce bureaucratic hurdles, invest in infrastructure, and support research and development (OECD, 2017). Conversely, inefficient or overly restrictive policies – such as excessive taxation, rigid business regulations, and complex bureaucratic procedures – can discourage entrepreneurial initiatives and stifle innovation (Ács et al., 2016).

Entrepreneurship ecosystems, like biological ecosystems, evolve organically in response to local conditions, creating complex policy challenges (Isenberg, 2011). Policies that fail to account for regional differences risk undermining local entrepreneurship efforts by imposing one-size-fits-all frameworks that do not align with the unique socioeconomic, cultural, and institutional contexts of each ecosystem (Bustos et al., 2012; Ács et al., 2016).

Policymakers generally adopt two broad approaches to entrepreneurship ecosystem development; top-down, centralised approaches, where national governments design policies and implement them through ministries and central agencies, or bottom-up, decentralised approaches, where local governments, regional authorities, or private sector actors take the lead in shaping policies that reflect local needs. The effectiveness of these approaches varies significantly across different national and regional contexts. In Uganda, for instance, the central government dominates entrepreneurship policymaking, reflecting a top-down policy model that prioritises national strategies over localised interventions. Some of the key initiatives include:

- The Uganda Entrepreneurship Development Programme (EDP) – Established to support entrepreneurial ventures through training, mentorship, and access to finance.
- The Uganda Industrial Research Institute Act (2002) – Focusing on promoting industrial innovation and technology transfer.
- The National Development Plans (NDP I, II, and III) – Which provides a broad economic development strategy, with entrepreneurship as a component.

While these initiatives demonstrate a strong commitment to fostering entrepreneurship, Uganda's highly centralised approach has limitations. For instance, local governments and entrepreneurship towns and cities lack the flexibility to tailor policies to local business environments. Additionally, entrepreneurs often face lengthy business registration processes, restrictive tax policies, and regulatory inconsistencies that deter business formation (World Bank, 2023). Lastly, Uganda faces inadequate ecosystem support where many government-led initiatives fail to integrate informal and grassroots entrepreneurship, which constitutes the majority of business activity in Uganda (Chimucheka, 2014; Urban and Kujinga, 2017).

Conversely, the UK follows a slightly decentralised approach to entrepreneurship policy, empowering regional and local governments to lead economic development efforts (Bogdanor, 2001). Some of the key initiatives include; Local Enterprise Partnerships (LEPs) – where regional business-led partnerships drive local economic growth by allocating government funding to entrepreneurship initiatives; The Regional Growth Fund (RGF) –

established in 2010 to distribute over £2.8bn in funding to support local business growth and innovation; and The "Local Growth: Realising Every Place's Potential" White Paper (2010), which emphasised that local stakeholders should take the lead in shaping entrepreneurship policies, given their deep understanding of regional economies (Department for Business, Energy and Industrial Strategy, 2012). As a result, this bottom-up approach has led to greater flexibility where local regions can design policies tailored to their specific entrepreneurship challenges and opportunities; faster implementation as decentralised decision-making reduces bureaucratic bottlenecks and enables agile policy responses to local economic shifts; and improved industry-academic linkages where Universities and innovation cities hubs work directly with local policymakers to strengthen entrepreneurship education and startup support programs.

Notwithstanding this, challenges remain in ensuring cohesion between local and national policies and addressing regional disparities in entrepreneurial support (OECD, 2017). Additionally, the contrast between Uganda's centralised approach and the UK's decentralised model highlights the importance of aligning policy frameworks with local entrepreneurship ecosystem dynamics.

B. FINANCE: ITS ROLE IN ENTREPRENEURIAL DEVELOPMENT

In most developing economies such as Uganda, access to finance remains a significant challenge, particularly for entrepreneurs operating in the informal sector and rural areas (Naudé, 2010; World Bank, 2016). Several systemic barriers hinder financial accessibility, including, but not limited to;

- Limited access to formal banking services – A significant portion of Uganda's population remains unbanked or underbanked, limiting access to formal financial institutions.
- High interest rates – Commercial banks often charge prohibitive interest rates, making it difficult for startups to secure affordable loans.
- Stringent collateral requirements – Many entrepreneurs lack sufficient assets to meet the collateral demands of banks and microfinance institutions.

- Financial illiteracy – A lack of financial education prevents many entrepreneurs from navigating funding processes effectively.

Due to these challenges, most Ugandan entrepreneurs rely on personal savings, family networks, or informal lending groups such as savings and credit cooperative organisations (SACCOs) (Eton et al., 2021). However, while these sources provide initial capital, they are often insufficient for scaling businesses or investing in innovation. To address these challenges, the Ugandan government has introduced several entrepreneurship financing initiatives, including The Youth Capital Venture Fund (YCVF), which offers low-interest loans to young entrepreneurs but has faced challenges in disbursement and sustainability and the Youth Livelihood Programme (YLP), which provides grants and training to empower young entrepreneurs – although reports suggest it has suffered from corruption, mismanagement, and political interference (EPRC, 2019). Despite these initiatives, inefficiencies in fund distribution and bureaucratic bottlenecks have limited their overall impact, reinforcing the need for structural financial reforms and improved financial literacy in the Ugandan entrepreneurship ecosystem.

In contrast (Table 7), the UK has a well-developed financial ecosystem, offering entrepreneurs a diverse range of funding options, including venture capital, business angel investment, innovation funding, and government-backed grants (GOV.UK, 2024). The presence of strong financial institutions and a robust regulatory framework enhances access to capital for businesses at various stages of development. Key funding mechanisms include the Regional Growth Fund (RGF) – a multi-billion-pound initiative supporting business expansion and job creation across the UK (Mason and Brown, 2014); Start-Up Loans Programme – which provides government-backed loans for early-stage entrepreneurs, offering funding and mentorship (GOV.UK, 2024) and The Enterprise Investment Scheme (EIS) and Seed Enterprise Investment Scheme (SEIS) both of which encourage investment in startups by offering tax relief to investors. The UK's strong financial ecosystem has contributed to the country's vibrant startup culture, particularly in cities such as London, Birmingham, Manchester, and Edinburgh, which have become major hubs for fintech, creative industries, and high-growth enterprises (Nesta, 2021).

Table 7: Comparing Access to Finance: Uganda vs. UK (Author's own compilation)

| Factor | Uganda | United Kingdom |
|---|--|---|
| Financial Infrastructure | Underdeveloped; reliance on informal lending | Well-developed; multiple funding sources available |
| Government Support | Limited but growing, with inefficiencies | Strong government-backed initiatives and investor incentives |
| Interest Rates | High, making loans expensive | Competitive, with lower interest rates and flexible terms |
| Venture Capital and Angel Investment | Limited presence; mainly in tech and urban areas | Well-established networks; strong presence in startup ecosystem |
| Financial Literacy | Low, hindering access to funding | High, with widespread access to financial education |

While finance availability is crucial, the ability to access and manage funds effectively is equally important. Many entrepreneurs, particularly in emerging markets, lack the knowledge and skills required to secure and utilise funding efficiently (Bae et al., 2014; Fayolle and Gailly, 2015). This gap underscores the need for Entrepreneurship Education (EE) to integrate financial literacy as a core component. EE plays a pivotal role in equipping students with an understanding of financial concepts such as budgeting, cash flow management, fundraising strategies, and investment readiness; pitching and business planning skills thereby enabling entrepreneurs to effectively present business ideas to investors and funding institutions; and a general awareness of funding sources, helping entrepreneurs navigate available financial options and choose the most suitable for their ventures. This research examines how finance as an ecosystem domain influences EE and entrepreneurship skill development, particularly in Uganda and the UK.

C. MARKETS: THEIR ROLE IN ENTREPRENEURIAL ECOSYSTEMS

In traditional economic theory, markets have primarily been viewed through the lens of supply and demand dynamics that regulate economic activities. However, entrepreneurial ecosystem research has shifted this perspective, emphasising the role of people, networks, and institutions as central to market development. Within this framework, markets serve as critical enablers of entrepreneurship, offering platforms for entrepreneurs to identify opportunities, interact with consumers, and compete effectively (Isenberg, 2010). Isenberg's model of entrepreneurship ecosystems captures the interconnected nature of market forces with other ecosystem domains, such as finance, policy, human capital, and culture. A well-functioning market provides entrepreneurs with access to consumers –

allowing them to test, refine, and scale their products based on demand. It also harbours competitive forces, which drive innovation and efficiency. Infrastructure and networks also ensure that goods, services, and ideas move efficiently within the economy (Isenberg, 2010). Conversely, weak or distorted markets – often characterised by monopolies, regulatory inefficiencies, or infrastructure deficits – can restrict entrepreneurs' access to resources and growth opportunities (Isenberg, 2010). Therefore, the role of market structures cannot be underestimated. They significantly influence entrepreneurial success, shaping the nature of competition, the ease of doing business, and the ability to attract investment.

Market Dynamics in Uganda: Opportunities and Constraints

Uganda presents a complex and evolving market landscape, characterised by significant economic potential but also systemic challenges (World Bank, 2020). The Global Entrepreneurship Monitor (GEM, 2014) ranked Uganda as one of the most entrepreneurial countries in the world, a testament to its vibrant informal sector and high rates of business creation. However, Uganda's market exhibits a dual character, blending opportunity-driven and necessity-driven entrepreneurship (GEM, 2020). Some of its key market strengths include a fast-growing consumer base – with one of the youngest populations globally, driving demand for goods and services. Uganda also boasts of sectoral opportunities in agriculture, tourism, technology, mining, oil, and gas. Additionally, Uganda also has regional trade potential especially with the East African Community (EAC) and African Continental Free Trade Area (AfCFTA) (MoFPED, 2024).

Unfortunately, Uganda has not proportionately benefited from these opportunities because businesses continue to face limited access to finance with many of them remaining locked out of formal financial systems and relying on informal savings groups and microfinance institutions (World Bank, 2020). The country also faces poor transport and energy infrastructure which increases operational costs, particularly in rural areas. The situation is not helped by cumbersome business registration processes, high tax burdens, and bureaucratic inefficiencies all of which hinder market entry and scalability (MoFPED, 2024). Consequently, the vast majority of businesses operate outside formal regulatory frameworks, limiting their ability to scale or attract investment. Ironically – and in spite of the challenges – Uganda's entrepreneurial landscape continues to evolve, with growing

efforts to formalise markets, improve infrastructure, and enhance regulatory efficiency (MoFPED, 2024). Policymakers are also increasingly focused on strengthening Uganda’s position as a regional trade hub, capitalising on its strategic location in East Africa.

Market Dynamics in the UK: A Mature and Competitive Ecosystem

Unlike Uganda, United Kingdom boasts one of the most advanced and diverse markets globally with high levels of consumer purchasing power, developed financial markets, and a strong regulatory environment (Bank of England, 2024; Bloomberg, 2024). Entrepreneurs benefit from well-established funding channels, including venture capital, angel investment, and government grants (GOV.UK, 2024), strong legal and regulatory framework. Offering clear business regulations, intellectual property protections, and contract enforcement mechanisms (Table 8). Additionally, and despite Brexit challenges, the UK maintains strong trade relationships with key international markets, fostering global business opportunities (HM Treasury, 2017). Crucially, the UK ranks highly in global innovation indices, with strong research and development (R&D) investments and university-industry collaborations (WEF, 2024).

Table 8: Comparing Market Conditions: Uganda vs. UK (Source: Author’s own compilation)

| Factor | Uganda | United Kingdom |
|-------------------------|---|--|
| Market Maturity | Developing economy; informal markets dominant | Mature economy; highly competitive and structured |
| Access to Consumers | Growing consumer base, but limited purchasing power | High consumer purchasing power; diverse customer segments |
| Financial Accessibility | Limited access to venture capital; reliance on microfinance | Strong VC networks, angel investors, and SME support funds |
| Regulatory Environment | Bureaucratic hurdles; weak contract enforcement | Well-established legal protections for businesses |
| Infrastructure | Poor transport and energy networks | High-quality infrastructure and digital connectivity |

However, not all is rosy in the UK. The country faces regional economic disparities, where London and the South-East dominate the UK economy, while regions such as the North of England, Wales, and Northern Ireland struggle with lower entrepreneurial activity. Since Brexit, the country has faced trade uncertainty with increased barriers to EU trade and regulatory realignments having disrupted supply chains and investment patterns. Crucially, the country has a high cost of entry. For instance, while financing is accessible, the cost of

living for staff, rent for office space, and talent acquisition are significantly higher compared to other global markets. Yet – like Uganda, and despite the above challenges – the UK continues to be one of the most attractive entrepreneurial hubs globally, thanks to proactive government policies such as the Industrial Strategy and SME support measures (HM Government, 2020). To successfully navigate these contrasting market environments, entrepreneurs must develop market-specific competencies, which EE can help cultivate.

D. SUPPORTS: THE ROLE OF SUPPORT STRUCTURES IN ENTREPRENEURIAL SUCCESS

Scholars widely acknowledge that no single domain within an entrepreneurship ecosystem functions in isolation – rather, the success of entrepreneurs depends on the interconnectedness of various ecosystem components (Zhang and Li, 2010; Isenberg, 2010). This recognition underpins the holistic nature of entrepreneurship ecosystems, where support mechanisms act as critical enablers of entrepreneurial success. Particularly for early-stage entrepreneurs, these support systems lower barriers to entry and enhance venture survival rates, significantly improving their chances of success (Isenberg, 2011). Entrepreneurial support systems encompass a diverse range of stakeholders, including government agencies – which provide policy support, funding, and regulatory frameworks (Stam, 2015); Non-Governmental Organisations (NGOs) and QUANGOs – offering advisory services and access to funding; business incubators and accelerators – delivering mentorship, networking, and business development resources (Brown and Mason, 2017); investors and venture capitalists – providing capital for start-ups to scale operations (Clark and Douglas, 2012); and mentors and professional networks – offering practical insights, industry connections, and strategic guidance (Fayolle and Gailly, 2015). This broad network of support not only aids start-ups but also enhances the overall entrepreneurship landscape, fostering innovation, resilience, and long-term business sustainability.

Uganda's entrepreneurial ecosystem is largely driven by government-led initiatives, aimed at supporting start-ups, particularly in high-growth sectors. These include the Youth Capital Venture Fund – aimed at providing low-interest loans to young entrepreneurs to foster business development; The Uganda Development Bank (UDB) Entrepreneurship Programmes – offering concessional loans to SMEs and high-growth businesses; The Uganda Industrial Research Institute (UIRI) – providing technical and business support services for

industrial and technology-based start-ups and various innovation hubs and incubators that provide training, mentorship, and early-stage funding (MoFPED, 2024). However, despite these government-led interventions, Uganda’s entrepreneurship support ecosystem faces notable challenges, including bureaucratic inefficiencies (World Bank, 2020), Limited funding and sustainability issues (EPRC, 2019), and weak mentorship and business advisory services (World Bank, 2020). While Uganda’s government actively supports entrepreneurship, greater private-sector involvement and ecosystem-driven support structures are necessary to create a more resilient and sustainable entrepreneurial landscape.

Unlike Uganda, the UK benefits from a well-developed and diversified entrepreneurial support system (Table 9), backed by a strong financial sector, mature venture capital networks, and a dynamic start-up ecosystem (Brown and Mason, 2017). Notable government interventions include the British Business Bank, Start-up Loans Scheme, Tech Nation Growth Programmes, Enterprise Investment Scheme (EIS) and Seed Enterprise Investment Scheme (SEIS), and Regional Growth Funds (RGF) empowering Local Enterprise Partnerships (LEPs) to provide funding and support for high-potential start-ups across the UK (HM Treasury, 2017). Unlike Uganda, the UK’s support structures are more decentralised, allowing local governments and private organisations to play a leading role in ecosystem development.

Table 9: Comparison: Business Incubators and Accelerators in Uganda vs. UK (Author’s own compilation)

| Aspect | Uganda | United Kingdom |
|-----------------------------|---|---|
| Number of incubators | Limited, but growing | Extensive network |
| Funding access | Reliant on grants and donor support | Strong VC and private-sector investment |
| Sectoral focus | Agriculture, fintech, ICT, energy | Fintech, AI, biotech, SaaS, cleantech |
| Government role | Heavy involvement, but often bureaucratic | Decentralised, strong public-private partnerships |

Perhaps ne other aspect of supports worthy of mention is mentorship, which plays a crucial role in entrepreneurial development, particularly in bridging the knowledge gap between experienced entrepreneurs and early-stage start-ups (Fayolle and Gailly, 2015). Successful entrepreneurs often attribute part of their success to strong mentorship networks, which provide strategic guidance and industry insights, investment readiness and funding connections, and personalised feedback and business development strategies. In Uganda,

mentorship remains fragmented, with most entrepreneurs relying on informal networks and industry associations. However, structured mentorship initiatives, such as Enterprise Uganda and the Tony Elumelu Foundation, are working to formalise mentorship support (MoFPED, 2024).

In contrast, the UK has a well-established ecosystem of entrepreneurship mentorship networks that support aspiring and established entrepreneurs across various sectors. Organisations such as the New Entrepreneurs Foundation (NEF) and SETsquared Partnership provide structured mentorship programs, training, and incubation support to early-stage entrepreneurs (NEF, 2024; SETsquared, 2024). Networks like UnLtd and Young Enterprise focus on social entrepreneurship and youth enterprise development, respectively, ensuring inclusive opportunities for entrepreneurial growth (UnLtd, 2024; Young Enterprise, 2024). Universities also play a key role, with initiatives such as the UCL Hatchery Mentor Network and Henley Entrepreneur Mentor Programme offering tailored guidance for student and alumni startups (UCL, 2024; Henley, 2024). Additionally, industry-driven mentorship programs such as EY's Entrepreneur Mentoring Community, Growth Entrepreneur Network by UBS, and Creative Business Mentor Network by Nesta provide high-level business expertise to founders navigating scaling challenges (EY, 2024; UBS, 2024; Nesta, 2024). Digital platforms such as Founders Network and Digital Boost further enhance accessibility by offering virtual mentorship and peer learning opportunities (Founders Network, 2024; Digital Boost, 2024).

These mentorship networks collectively contribute to strengthening the entrepreneurial landscape by fostering innovation, skill development, and sustainable business growth. They are a crucial component of a vibrant entrepreneurship ecosystem. As such, integrating support structures into EE in higher educations' agenda can equip students with the networks, skills, and capital access needed to thrive in dynamic entrepreneurial ecosystems.

2.4.2 CULTURE: ITS ROLE IN EE AND ENTREPRENEURSHIP ECOSYSTEMS

Culture is a fundamental, yet often underestimated, component of entrepreneurship ecosystems. While access to finance, markets, human capital, and policy frameworks are widely acknowledged as critical enablers of entrepreneurial activity, culture profoundly shapes how entrepreneurship is perceived, pursued, and sustained within a society

(Isenberg, 2010; Spigel, 2017). Isenberg's (2010) domains of entrepreneurship ecosystems explicitly acknowledge culture as an integral component, arguing that cultural attitudes toward risk, failure, innovation, and business creation play a significant role in fostering or stifling entrepreneurship. Despite its significance, culture remains one of the least examined factors in entrepreneurship ecosystem research, with scholars historically focusing on economic, political, and financial drivers (Venkataraman, 2004; Brown and Mason, 2017).

This section critically examines the role of culture in entrepreneurship ecosystems, integrating key cultural theories, empirical findings, and comparisons between Uganda and the UK to provide a comprehensive and globally relevant analysis.

The Evolution of Cultural Theories and Their Implications for Entrepreneurship

The discourse surrounding culture and entrepreneurship has evolved over the past century, reflecting shifting perspectives on how culture influences human behaviour. Table 10 summarises key definitions of culture, illustrating its multifaceted nature and the growing recognition of its impact on human behaviour, including entrepreneurial behaviour.

Table 10: Definitions of culture proposed by different authors at different periods (Author's own compilation).

| Author | Definition of Culture | Key Words, Themes, or Elements |
|--------------------------|---|--|
| Tylor (1871) | Culture is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society. | Knowledge, belief, art, morals, law, custom, capabilities, habits |
| Malinowski (1922) | The handiwork of man, as the sum of tools, customs, ideas, and artifacts. | Handiwork of man, tools, customs, ideas, artifacts |
| Mead (1935) | The total sum of the social environment that humans inhabit. | Social environment |
| Boas (1940) | The total accumulation of the habits of human beings acquired through centuries. | Accumulation of habits, centuries of acquisition |
| Herskovitz (1948) | The social behaviours, beliefs, customs, and traditions developed by human societies to adapt to their environments. | Social behaviours, beliefs, customs, traditions, adaptation to environment |
| Kluckhohn (1951) | The shared patterns of thought, emotion, and behaviour, transmitted through | Shared patterns, thought, emotion, behaviour, |

| | | |
|---|---|--|
| | symbols, that distinguish human groups and guide their actions. | symbols, human groups, guidance |
| White (1959) | Culture encompasses the entire range of non-genetic and non-physical elements, such as tools, language, customs, and institutions, shaping human societies. | Tools, language, customs, institutions, non-genetic, non-physical, shaping societies |
| Geertz (1973) | Culture is the fabric of meaning in terms of which human beings interpret their experience and guide their action. | Fabric of meaning, interpretation, guiding action |
| Hofstede (1980) | The collective mental programming that distinguishes one group from another, influencing their behaviours and values. | Collective mental programming, distinguishing, behaviours, values |
| UNESCO (1982) | Culture includes the spiritual, material, intellectual, and emotional features unique to societies or social groups, shaping their identities and practices. | Spiritual, material, emotional, intellectual, unique, shaping identities, practices |
| Mueller and Thomas (2001) | Culture represents the underlying system of specific values within a group, influencing the personality and behaviours of its members, which may differ across societies. | Underlying system, specific values, personality, behaviours, influences, societal differences |
| Bauman (2002) | Culture constitutes an integral part of human beings, representing both a defining essence and an existential trait that contributes to their identity. | Integral part, defining essence, existential trait, identity |
| House et al. (2002) and House and Javidan (2004) | The shared motives, values, beliefs, identities, and interpretations, passed down through generations, shaping community experiences. | Values, beliefs, shared motives, identities, interpretations, generational transmission, community experiences |
| Russell et al. (2010) | Culture encompasses the amalgamation of formal and informal institutions within a country, influencing citizen practices across various aspects of life. | Influence, citizen practices, multiple aspects of life, formal and informal institutions |
| Pinillos and Reyes (2011) | A system of values specific to a group, influencing personality traits and motivating behaviours not observed in other societies. | System of values, specific group, influencing traits, motivating behaviours, societal differences |

From an entrepreneurial perspective, culture is not static – it is dynamic and evolves over time, influencing who becomes an entrepreneur, how businesses are managed, and how risk is perceived (McClelland, 1961; Hofstede, 2001; Zhao et al., 2012).

Culture and Entrepreneurial Behaviour: A Comparative Analysis

Despite the acknowledged significance of cultural and social factors in entrepreneurship, culture often appears to be overlooked in the literature concerning entrepreneurship ecosystems (Venkataraman, 2004; Brown and Mason, 2017). However, where literature exists, it shows that national cultures influence entrepreneurship rates by shaping attitudes toward innovation, competition, and individual autonomy (McClelland, 1961; Weber, 1930; Schumpeter, 1934; Mueller and Thomas, 2001; Hayton et al., 2002; Hayton et al., 2002). However, these relationships are not linear – cultural dimensions that once hindered entrepreneurship can evolve over time, as seen in China, Singapore, and India, which transitioned from highly regulated to highly entrepreneurial economies (Isenberg, 2010, 2011). Table 11 presents a comparative analysis of how the Ugandan and UK national cultures influence entrepreneurship. These distinctions highlight the need for context-sensitive entrepreneurship education (EE) models that account for cultural realities in different ecosystems.

Table 11: A comparative analysis of how the Ugandan and UK national cultures influence entrepreneurship (Author's own compilation)

| Cultural Dimension | Uganda (African Context) | United Kingdom (Western Context) |
|---------------------------------|--|--|
| Risk-taking | High risk aversion, necessity-driven entrepreneurship (Urban and Kujinga, 2017) | High tolerance for risk, opportunity-driven entrepreneurship (Mason and Brown, 2014) |
| Attitude toward failure | Failure carries social stigma (Chimucheka, 2014) | Failure is seen as a learning opportunity (Neck and Greene, 2011) |
| Entrepreneurial networks | Strong informal networks (family-based financing) (Acquaah, 2007) | Formalised networks (angel investors, venture capitalists) (Mason and Brown, 2014) |
| Innovation culture | Resource-constrained innovation (Jua Kali sector, frugal innovation) (Radjou and Prabhu, 2015) | High-tech, venture-backed innovation (HM Treasury, 2017) |

THEORETICAL FOUNDATIONS: CULTURE AND ENTREPRENEURSHIP

Scholars have long sought to understand how culture influences economic activity, particularly entrepreneurship. Several theoretical frameworks provide insights into this relationship:

a) Hofstede's Cultural Dimensions Theory

Geert Hofstede's (1980; 2001) seminal work on cultural dimensions remains one of the most influential theories in cross-cultural research. Hofstede defined culture as the "*collective programming of the mind distinguishing the members of one group or category of people from another*" (Hofstede and Minkov, 2013. pp). His research demonstrated that understanding cultural nuances could inform managerial decisions and policies within organisations. Given that entrepreneurship is inherently behavioural and influenced by environmental and socio-structural factors, comprehending the cultural aspects, within a particular entrepreneurship ecosystem, is crucial for informing both entrepreneurship policy and EE. Hofstede identified six dimensions that define national cultures, many of which have direct implications for entrepreneurial behaviour:

1. **Power Distance** – The extent to which less powerful members of society accept hierarchical structures.
2. **Individualism vs. Collectivism** – The degree to which societies prioritise individual achievements over group cohesion.
3. **Uncertainty Avoidance** – How comfortable a culture is with risk-taking and ambiguity.
4. **Masculinity vs. Femininity** – The emphasis on competitive, achievement-driven behaviours (masculine) versus cooperative, quality-of-life-driven values (feminine).
5. **Long-Term vs. Short-Term Orientation** – The focus on future rewards versus immediate gratification.
6. **Indulgence vs. Restraint** – The extent to which societies allow free gratification of desires.

Entrepreneurial cultures tend to exhibit low power distance, high individualism, moderate uncertainty avoidance, and strong long-term orientation (Shane, 1993; Hofstede, 2001). The UK, for example, scores high in individualism, fostering independence, self-reliance, and

entrepreneurial risk-taking. Uganda, however, reflects a more collectivist orientation, where entrepreneurship is often community-driven and necessity-based rather than purely opportunity-driven (GEM, 2020).

Numerous studies have explored the relationship between Hofstede's cultural dimensions and entrepreneurship, yielding mixed findings. For instance, Mueller and Thomas (2001) concluded that certain cultures are more conducive to entrepreneurship than others, with low power distance communities exhibiting higher entrepreneurship rates due to increased freedom and less regulation (Mueller and Thomas, 2001). Conversely, high power distance societies, such as China, Singapore, and India, may exhibit lower entrepreneurship rates due to centralised control and regulation (Mitchell et al., 2000; Ardchvili and Gasparishvili, 2003; Castillo-Palacio et al., 2017). Yet cultural dimensions previously associated with low entrepreneurial activity, such as China, Singapore and India (Mueller and Thomas, 2001), have since experienced significant transformations, with some countries emerging as global hubs for innovation and entrepreneurship (Isenberg, 2010, 2011; Brown and Mason, 2017). Research has also uncovered relationships between culture and entrepreneurship in different economic contexts. For example, Zhao et al. (2012) found a positive relationship between power distance and entrepreneurship in low or middle-income countries, highlighting the malleability and temporal instability of culture (Hayton et al., 2002). Moreover, individualistic societies tend to exhibit higher levels of entrepreneurship due to greater individual freedom and opportunity (Oyserman et al., 2002). Conversely, collectivist communities may stifle entrepreneurial activity by limiting individual freedom and opportunities (Hayton et al., 2002; Mitchell, 2000; Zhao et al., 2012).

b) Douglas North's Institutional Theory

North (1990) distinguishes between formal institutions (laws, policies, regulations) and informal institutions (social norms, beliefs, and values), both of which influence entrepreneurship and entrepreneurship ecosystems. Cultural norms, as informal institutions, can either enable or constrain entrepreneurial activity. In many African societies, including Uganda, traditional norms emphasise stability, respect for hierarchy, and risk aversion, which may discourage entrepreneurial risk-taking (Urban and Kujinga, 2017).

c) McClelland's Achievement Motivation Theory

McClelland (1961) proposed that entrepreneurship is driven by an individual's "need for achievement" (nAch), which varies across cultures. Countries with high achievement-oriented cultures tend to produce more entrepreneurs (McClelland, 1961). The UK has historically encouraged entrepreneurial ambition through policy incentives, cultural narratives of success, and a well-established venture capital ecosystem (Mason and Brown, 2014). In Uganda, while entrepreneurial intention is high (GEM, 2014), cultural constraints such as fear of failure and lack of mentorship limit entrepreneurial persistence (Chimucheka, 2014).

CULTURE'S INFLUENCE ON ENTREPRENEURSHIP EDUCATION (EE)

EE is not culturally neutral – the pedagogical approaches used in Western contexts do not always translate effectively to African settings (Fayolle and Gailly, 2015). In Western education models, for instance, EE emphasises self-reliance, creativity, and disruptive innovation, whereas in many African contexts, education remains more hierarchical, theory-based, and structured (Penaluna and Penaluna, 2009). This section explores the cultural factors affecting EE in the UK and Uganda:

- **Pedagogical Approach** – UK EE focuses on problem-solving, real-world engagement, and business simulations (Neck and Greene, 2011). In contrast, Ugandan EE remains largely lecture-based and theoretical, with limited experiential learning opportunities (Nabushawo et al., 2020).
- **Perceived Feasibility of Entrepreneurship** – In Uganda, many students view entrepreneurship as a last resort due to limited job opportunities, rather than a desirable career path (GEM, 2020). UK students, on the other hand, often see entrepreneurship as a high-status and aspirational choice (Rae, 2005).
- **Gender and Entrepreneurship** – Cultural perceptions of gender roles influence who becomes an entrepreneur. In Uganda, women entrepreneurs often face cultural barriers, such as limited access to credit and male-dominated industries (Amine and Staub, 2009). The UK, while still grappling with gender disparities in investment, has more institutionalised support for female entrepreneurship (OECD, 2020).

- Entrepreneurial Role Models – The presence of successful entrepreneurs in a society encourages entrepreneurial ambition (Shapero and Sokol, 1982). In Uganda, role models tend to be informal entrepreneurs, whereas in the UK, high-profile start-up success stories (e.g., Richard Branson, James Dyson) inspire innovation-driven entrepreneurship (FT, 2024).

Culture is not merely an abstract concept but a tangible force shaping entrepreneurial ecosystems. The above examples necessitate contextual adaptations in EE, ensuring that entrepreneurship education embraces cultural realities. In Uganda – rather than imposing Western-centric pedagogies – this might mean incorporating community-based learning to leverage collectivist values (Urban and Kujinga, 2017); promoting failure as a learning experience rather than a stigma (Neck and Greene, 2011); and finding a way to leverage the country’s informal sector in EE (World Bank, 2020).

2.4.3 COMPARATIVE ANALYSIS OF ISENBERG’S MODEL AND ALTERNATIVE FRAMEWORKS

While Isenberg’s model provides a comprehensive framework, its universal applicability has been questioned, especially in regions with distinct socioeconomic, cultural, and institutional characteristics (Mason and Brown, 2014). For instance, Isenberg’s model assumes that entrepreneurship ecosystems flourish in environments with strong institutional frameworks (Isenberg, 2010). However, in many developing countries, such as Uganda, Nigeria, and Kenya, informal networks and social capital play a much larger role in entrepreneurship than formal institutional support (Acs et al., 2014; Urban and Kujinga, 2017). The role of family businesses, community financing models, and informal mentorship networks is crucial in African entrepreneurship, yet is not explicitly addressed in Isenberg’s model (Mason and Brown, 2014).

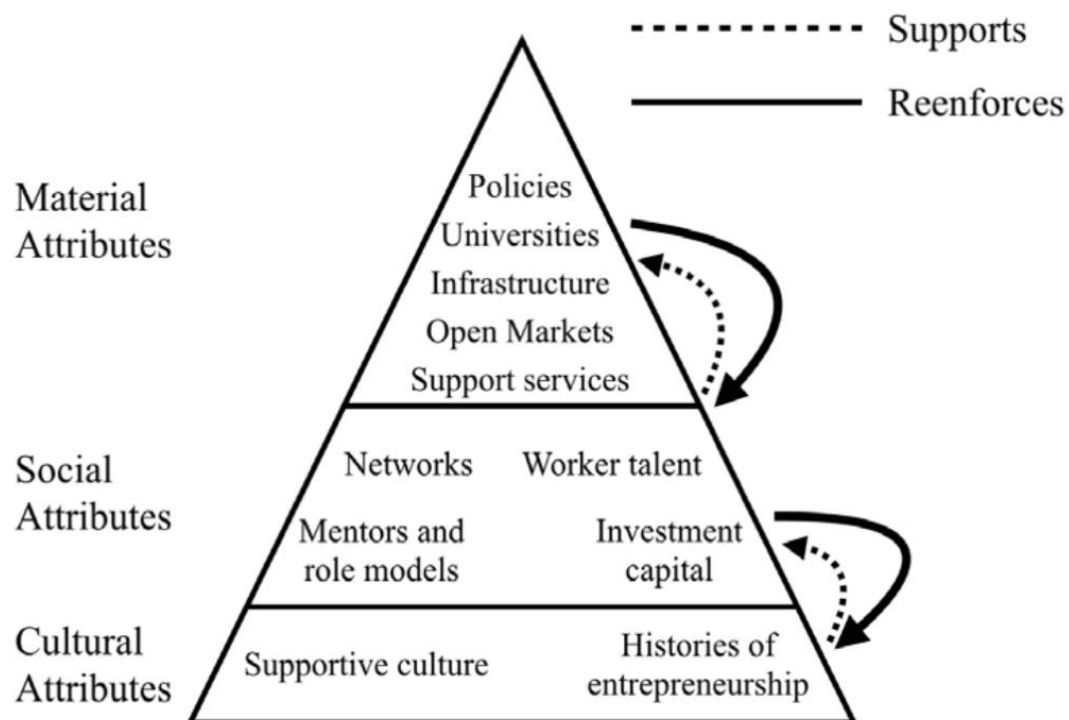
Additionally – especially in many African economies – entrepreneurial ecosystems are necessity-driven rather than opportunity-driven (GEM, 2020). Isenberg’s model does not fully capture the challenges of survivalist entrepreneurship, where individuals start businesses due to a lack of formal employment opportunities rather than an inherent desire for innovation (Chimucheka, 2014). For instance, while venture capital (VC) and angel investment are central components of financing in developed economies, in Uganda and

This section critically examines Isenberg’s model in relation to key contributions from the World Economic Forum (WEF, 2013), Stam (2015), Koltai (2016), Spigel (2017), and Stam and Van de Ven (2021). The section also explores these by incorporating African insights and drawing comparisons with the UK context where applicable.

A. Ecosystem Attributes by Ben Spigel

Spigel (2015, 2017) defines an entrepreneurship ecosystem as a combination of social, political, economic, and cultural elements that foster innovative start-ups. His model (Figure 22) identifies six core attributes – actors, institutions, resources, networks, support organizations, and culture – emphasising their interconnected nature.

Figure 22: Relationships between attributes within entrepreneurial ecosystems (Spigel, 2015)



Comparison with Isenberg:

- **Holistic vs. Pillar-Based Approach:** Spigel takes a broader, interconnected view of ecosystem elements, whereas Isenberg organises elements into discrete domains such as policy, finance, culture, and support.
- **Actor-Centric vs. System-Centric:** Spigel highlights the role of individual actors and their relationships, while Isenberg provides a systems-level analysis.

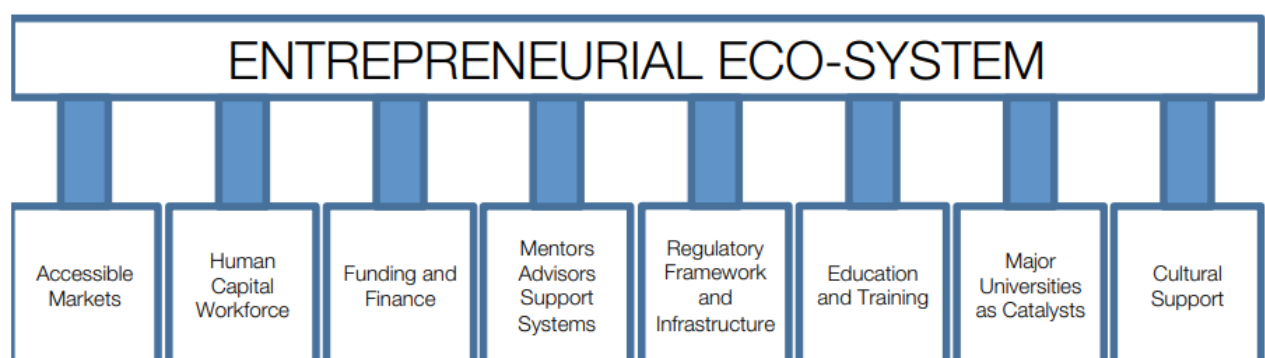
- **Informality:** Spiegel places a greater emphasis on informal networks, which are particularly significant in African contexts where informal business interactions often drive entrepreneurship (Zoogah et al., 2015).
- **Relevance to Africa:** Spiegel's emphasis on networks aligns well with African ecosystems, where communal ties, social capital, and informal mentorship play a crucial role in business development (Kshetri, 2011).

B. World Economic Forum (WEF)'s Entrepreneurial Ecosystem Pillars

The WEF (2013) outlined eight critical elements for entrepreneurship: accessible markets, human capital, funding, supportive infrastructure, regulatory environment, education, R&D transfer, and cultural support (Figure 23).

Compared to Isenberg's model, both emphasise policy, finance, and cultural aspects, but the WEF framework uniquely highlights market sophistication, infrastructure, and R&D transfer, which are often underdeveloped in African economies (Naudé, 2010; 2011). In Uganda and many African nations, weak infrastructure and limited R&D facilities continue to hinder entrepreneurial growth, making the WEF's inclusion of these factors particularly relevant (Mugambi and Karugu, 2020).

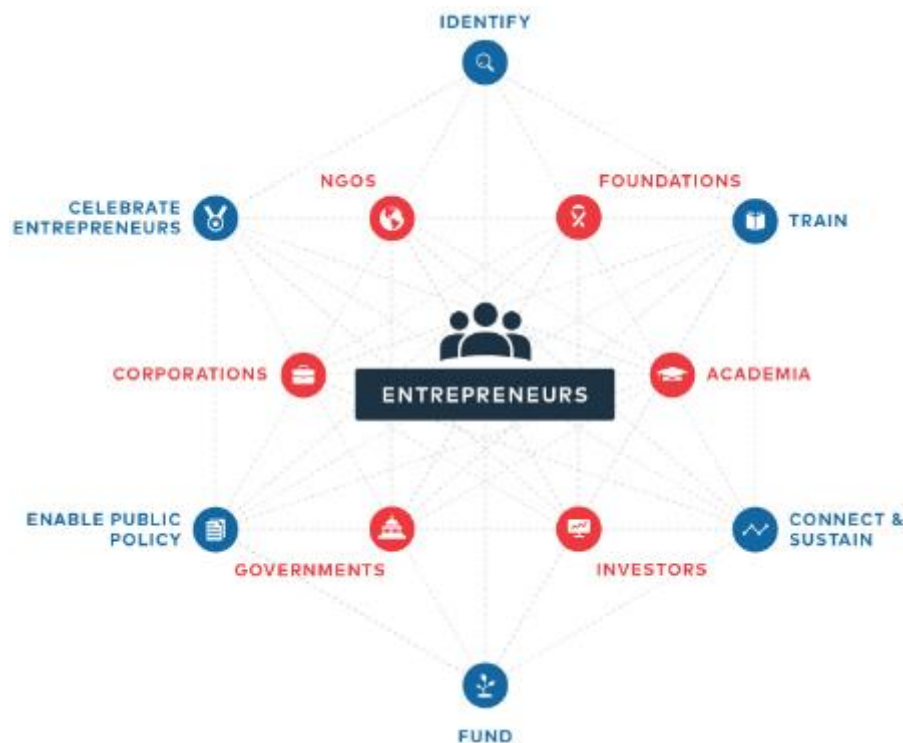
Figure 23: WEF's Entrepreneurial Eco-System categorisation.



C. Koltai's Six+Six Entrepreneurship Ecosystem Model

Koltai (2016) introduces six core pillars – Identify, Train, Connect and Sustain, Fund, Enable, and Celebrate – alongside six critical actors (NGOs, foundations, academia, investors, government, and corporations) (Figure 24).

Figure 24: Six+Six entrepreneurship ecosystem model (Koltai, 2016).



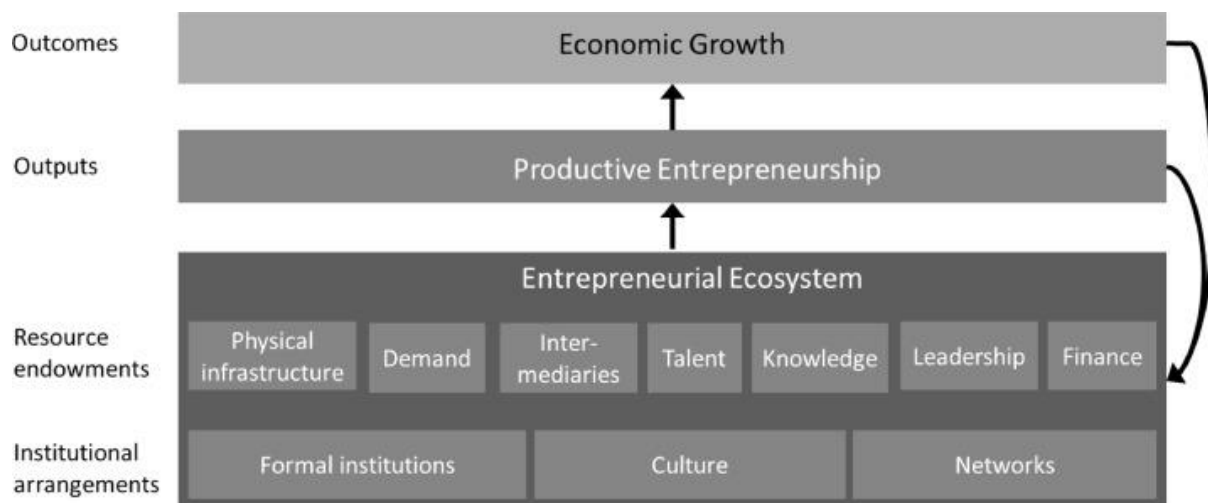
Compared to Isenberg, Koltai emphasises societal recognition of entrepreneurship through the “Celebrate” pillar, which is often overlooked, and not made prominent in Isenberg’s model, yet is crucial in cultures where entrepreneurship is undervalued (Olawale and Garwe, 2010). Additionally, the model’s inclusion of NGOs and foundations resonates strongly in Africa, where international organisations play a vital role in supporting entrepreneurship mainly through grants and early-stage business incubation support (Sriram and Mersha, 2010). Perhaps more importantly, and related to this research, is the model’s emphasis on education and training, which aligns with the increasing role of entrepreneurship education (EE) programs in Africa, and Uganda in particular (Fatoki, 2010; Mwebaza-Basalirwa, et al., 2015; Namatovu et al., 2021).

D. Stam and Van de Ven’s Entrepreneurial Ecosystem Model.

Stam and Van de Ven (2021) propose an ecosystem model comprising of three key components namely; The Institutional Environment – which includes regulatory structures, cultural norms, and economic conditions; Resource Endowment – which includes physical infrastructure, finance, leadership, talent, knowledge, and demand; and Productive

Entrepreneurship – the extent to which the ecosystem supports scalable business models (Figure 25).

Figure 25: Entrepreneurial ecosystem model (Stam and Van de Ven, 2021)



While Isenberg outlines key domains, Stam and Van de Ven take a more structured, measurable approach, which is useful for policy evaluation. Their model explicitly integrates institutional and social contexts, which is critical in African settings where weak regulatory environments can hinder entrepreneurship. Lastly, the model’s focus on talent and leadership, which mirrors the growing emphasis on human capital development in Uganda’s entrepreneurship landscape (Nabukeera, 2020) is particularly noteworthy.

2.4.4 ALTERNATIVE MODELS TO ENTREPRENEURSHIP ECOSYSTEMS

As explained above, entrepreneurship ecosystems are dynamic environments that foster innovation, business creation, and economic development. However, there are other alternative models that provide additional perspectives on how entrepreneurial activity emerges and thrives within different socio-economic and geographic contexts. This section explores these alternative models to entrepreneurship ecosystems.

A. Industrial Districts

Industrial districts, as conceptualised by Alfred Marshall (1920), represent localized geographical areas where firms within the same industry cluster together, sharing resources, knowledge, and expertise to enhance their competitive advantage. These districts have long been recognized as critical drivers of economic development and

innovation, fostering the growth of small and medium-sized enterprises (SMEs) (Becattini, 1987; Saxenian, 1994).

While industrial districts and entrepreneurship ecosystems share similarities—such as the emphasis on geographic proximity and social networks—they differ in scope. Industrial districts are often industry-specific, whereas entrepreneurship ecosystems encompass diverse industries and actors, including educational institutions, accelerators, and incubators (Bathelt et al., 2004). This broader focus makes entrepreneurship ecosystems particularly relevant in Africa, where economic diversification is crucial for sustainable development (Naudé, 2019). Despite these differences, both models aim to promote innovation, foster collaboration, and drive economic development (Bathelt and Turi, 2011).

B. Regional Clusters

Regional clusters, as defined by Porter (1998), are geographical concentrations of interconnected firms, suppliers, and supporting institutions within a specific industry or sector. These clusters are characterised by proximity, shared resources, and collaboration, which contribute to their competitive advantage (Ketels, 2003). Although similar to industrial districts, regional clusters differ in that they encompass a broader range of industries, including high-tech and service sectors (Maskell and Malmberg, 1999). And compared to entrepreneurship ecosystems, which involve a complex network of actors – including universities, investors, and government agencies – regional clusters tend to be more industry-focused (Mason and Brown, 2014). In Africa, these regional clusters have been instrumental in sectors such as agribusiness and fintech, demonstrating their potential for fostering industry-specific innovation (Adegbite et al., 2007).

C. Innovative Milieus

Innovative milieus, conceptualised by Crevoisier (2004), refer to socio-economic environments characterised by dense networks of collaboration, knowledge sharing, and innovation. These milieus facilitate informal and cross-sectoral interactions, leading to heightened creativity and economic dynamism (Cooke and Leydesdorff, 2006; Asheim and Gertler, 2005). Their key features include; Knowledge Exchange – which facilitates knowledge transfer through informal networks and partnerships; Cross-Sector Collaboration

– which encourages interdisciplinary problem-solving and innovation; Entrepreneurial Culture – which provides fertile ground for startups and experimentation; Supportive Infrastructure – which includes R&D facilities, incubators, accelerators, and funding mechanisms; and lastly Local Context – which draws on regional strengths and challenges.

Innovative milieus share attributes with entrepreneurship ecosystems, particularly in their emphasis on collaboration and knowledge exchange. However, while ecosystems focus on entrepreneurship broadly, innovative milieus are more regionally specific (Crevoisier, 2004). This concept is particularly relevant in African cities like Kampala, Nairobi and Lagos, where innovation hubs foster cross-industry collaboration despite institutional barriers (Gali, 2020; Harima et al., 2023; Acs et al., 2023).

D. The University-Based Entrepreneurial Ecosystem (UBEE)

Universities play a pivotal role in entrepreneurship ecosystems, acting as knowledge hubs and catalysts for innovation (Leendertse et al., 2020; Jegede and Nieuwenhuizen, 2021). This shift highlights the emergence of entrepreneurship as the "third mission" of universities, alongside teaching and research (Spigel and Harrison, 2018; Wurth et al., 2022). Effective UBEEs provide many services, including: EE programs, workshops, and mentoring (Nicotra et al., 2018); technology transfer through incubators and accelerators (Spigel and Harrison, 2018; Lehmann et al., 2020); business incubation, networking, funding access, and legal support (Theodoraki and Messeghem, 2017); and knowledge transfer through university-industry partnerships (De Oliveira and Torkomian, 2019).

While UBEEs have driven innovation in developed economies such as the US and UK (Saxenian, 1994; Feld, 2012), they remain underdeveloped in many African countries, including Uganda. Strengthening university-industry linkages and fostering an entrepreneurial culture within African universities could enhance their impact on local entrepreneurship ecosystems (Roundy and Fayard, 2020; Meyer et al., 2020).

2.4.5 CRITIQUE OF CONCEPTS ON ENTREPRENEURSHIP ECOSYSTEMS

While entrepreneurship ecosystems have gained significant attention in academic and policy circles, several critiques have emerged concerning their conceptualisation,

application, and practical impact. Table 12 below summarises some of the key critiques labelled against entrepreneurial ecosystem models.

Table 12: Critique of Concepts on Entrepreneurship ecosystems (Author's own compilation)

| Model | Strengths | Weaknesses |
|-----------------------------|--|--|
| Isenberg (2010) | Advanced understanding of entrepreneurship ecosystems, focusing on policy and venture capital. | May oversimplify the diverse ecosystem elements, neglecting cultural, educational, and social factors. |
| Audretsch (2016) | Highlights regional policy roles in fostering ecosystems. | Limited focus on education and lacks specificity for varied contexts like Uganda and the UK. |
| Stam (2015) | Provides a nuanced understanding of ecosystem dynamics. | Emphasises social capital but does not fully account for the role of educational institutions. |
| Spigel (2017) | Offers relational insights into social interactions in ecosystems. | Overlooks structural elements, particularly the influence of entrepreneurship education (EE). |
| Mason (2014) | Raises awareness of theoretical debates in ecosystems. | Overly focused on theoretical critique, with less attention to practical applications. |
| Autio and Acs (2013) | Provides valuable insights into entrepreneurial growth aspirations. | Prioritises high-growth firms, overlooking the diverse goals of social entrepreneurs and EE. |

A recurring critique across these models is the insufficient integration of entrepreneurship education (EE) into their frameworks. In developing economies such as Uganda, EE plays a crucial role in ecosystem development by equipping entrepreneurs with the necessary skills and knowledge. Additionally, alternative models of entrepreneurship ecosystems also offer diverse perspectives. However, each has limitations that must be addressed. A more integrative approach that includes educational institutions, cultural factors, and region-specific needs is most likely to enhance the effectiveness of entrepreneurship ecosystems, particularly in African contexts.

2.5 SUMMARY OF THE LITERATURE REVIEW

This study reviewed existing literature on entrepreneurship ecosystems, entrepreneurship education (EE), and entrepreneurship skills, focusing on their interconnections. The review highlighted that entrepreneurship skills are foundational to entrepreneurial success, with EE playing a crucial role in nurturing these skills. Entrepreneurship ecosystems provide the structural support necessary for entrepreneurs to thrive, with universities acting as vital players in fostering entrepreneurial activity and skill development (Isenberg, 2010; Autio et al., 2018).

However, gaps remain in understanding the deeper interconnections between these three components. While studies have explored these areas individually, their relationships are often addressed in isolation, offering fragmented insights (Nambisan et al., 2019; Pittaway and Cope, 2007). For example, while EE is commonly seen as a means to develop entrepreneurial skills, less attention has been given to how ecosystems shape the content and effectiveness of EE (Brush et al., 2019; Pittaway et al., 2023).

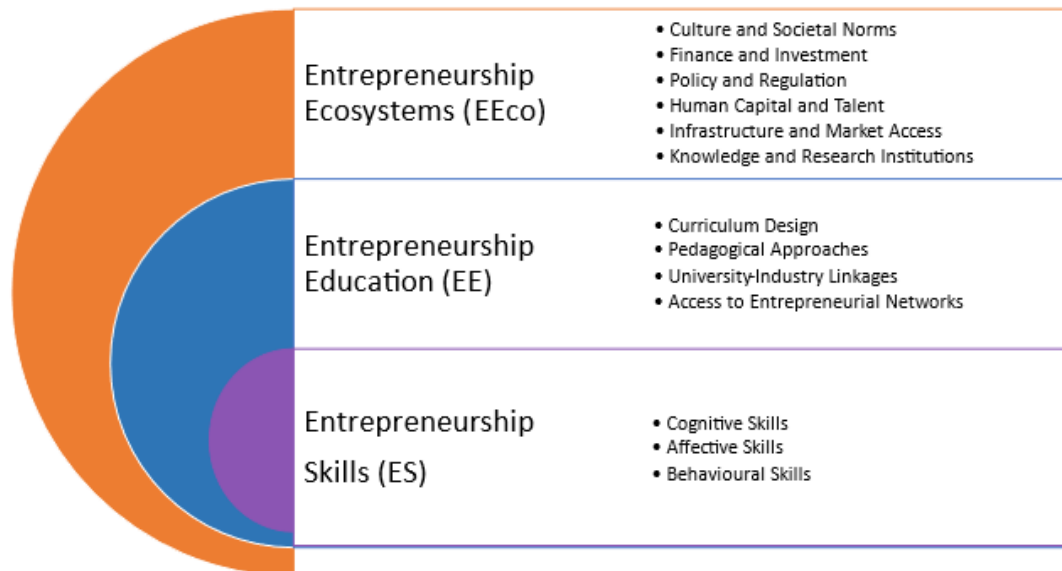
Additionally, recent literature highlights the significance of contextual factors – such as industry clusters, financial access, and regional economic conditions – in shaping EE outcomes (Spigel, 2017; Brown and Mason, 2017). By examining these factors in both the UK and Uganda, this research contributes to a more comprehensive understanding of how entrepreneurship ecosystems mediate the relationship between EE and skill development.

2.5.1 CONCEPTUAL FRAMEWORK: INTEGRATING ENTREPRENEURSHIP ECOSYSTEMS, ENTREPRENEURSHIP EDUCATION, AND ENTREPRENEURSHIP SKILLS

The conceptual framework emerging from this literature review brings together three pivotal domains – Entrepreneurship Ecosystems (EEco), Entrepreneurship Education (EE), and Entrepreneurship Skills (ES) (Figure 26). It highlights both the well-explored and the underexplored interconnections identified across the literature. Existing studies often treat these domains separately, but this framework posits a dynamic, reciprocal relationship among EEco, EE, and ES – one that this research aims to investigate empirically. In particular, the framework underscores that contextual factors – such as cultural norms, policy environments, and economic conditions – do influence how these three domains

interact, though the precise nature of these effects has been insufficiently addressed in existing scholarship.

Figure 26: Literature review conceptual framework: exploring the interplay between the entrepreneurship ecosystem, teaching methods, and entrepreneurship skills (Source: Own Compilation)



Key Components of the Conceptual Framework

Entrepreneurship Ecosystems (EEs): Entrepreneurship ecosystems provide the structural support required for entrepreneurial activities to flourish. It is drawn from Isenberg's (2010) model and consists of six key themes:

- **Policy and Regulation:** Legal frameworks, government policies, and regulatory conditions that enable or hinder entrepreneurship.
- **Finance and Investment:** Availability of funding sources such as venture capital, angel investors, grants, and microfinance.
- **Culture and Societal Norms:** Social attitudes toward entrepreneurship, risk-taking propensity, and entrepreneurial identity.
- **Human Capital and Talent:** The availability of skilled labour, mentorship, and professional networks.
- **Infrastructure and Market Access:** Physical and digital infrastructure that supports entrepreneurship, including co-working spaces and technological hubs.
- **Knowledge and Research Institutions:** Universities and research centres that facilitate knowledge transfer, innovation, and entrepreneurship education.

Entrepreneurship Education (EE): EE serves as a bridge between EEs and the development of ES. While traditional EE models focus on imparting business knowledge and skills, the framework extends this by emphasising the role of ecosystems in shaping EE. The EE component includes:

- Curriculum Design: Structured learning programs that incorporate theoretical and experiential learning.
- Pedagogical Approaches: Active learning methods, including case studies, problem-based learning, and incubation programs.
- University-Industry Linkages: Partnerships between academic institutions and industry actors that enhance practical exposure.
- Access to Entrepreneurial Networks: Opportunities for students to engage with entrepreneurs, investors, and policymakers.

Entrepreneurship Skills (ES): ES are the outcomes of EE, refined and amplified by the surrounding ecosystem. The framework categorises these skills into three broad areas:

- Cognitive Skills: Opportunity recognition, business model development, and strategic thinking.
- Affective Skills: Resilience, adaptability, and risk-taking attitude.
- Behavioural Skills: Networking, leadership, and negotiation abilities.

In examining how diverse ecosystem structures affect the design and delivery of entrepreneurship education, and the consequent development of entrepreneurship skills, this study offers a comparative viewpoint between the UK and Uganda.

3. RESEARCH CONTEXT

3.1 INTRODUCTION

The previous chapter reviewed existing literature on key theoretical frameworks underpinning this research, including entrepreneurship education models, ecosystem dynamics, and pedagogical approaches. However, and as outlined in Chapter 1, entrepreneurship does not exist in a vacuum; it is deeply embedded within the socio-economic, cultural, and institutional frameworks of its environment. Thus, this chapter provides an in-depth exploration of the research context in which EE is delivered, providing a critical backdrop for understanding how environmental factors influence educational outcomes. It particularly focuses on the socio-economic, cultural, and educational environments of the chosen countries (United Kingdom and Uganda) and outlines the unique characteristics of each nation. By anchoring the research in real-world contexts, this chapter bridges the gap between theoretical discussions and practical applications, ensuring a holistic analysis.

This study adopts a comparative approach, examining the development and implementation of EE within the distinct contexts of the UK and Uganda. The rationale for this comparative lens is rooted in the research's aim to uncover how different entrepreneurship ecosystems shape educational methods and outcomes. As outlined in Chapter 1, entrepreneurship does not exist in a vacuum; it is deeply embedded within the socio-economic, cultural, and institutional frameworks of its environment. By juxtaposing a developed economy like the UK with a developing one like Uganda, this research sought to illuminate both the universal and context-specific factors influencing EE. This approach enabled a nuanced understanding of how varying ecosystems, policies, and cultural attitudes contribute to the formation of entrepreneurial competencies.

The decision to establish a thorough contextual foundation separately after the literature review and before the methodology chapter was intentional. While the literature review provided a comprehensive examination of theoretical frameworks and existing research, and the methodology chapter details the research design and data collection processes,

understanding the specific socio-economic, cultural, and educational landscapes of the UK and Uganda was essential for contextualising the study. This structure ensures that readers appreciate the unique dynamics influencing EE in each country before delving into the research methods. By positioning the context chapter here, the study maintains a coherent narrative flow, linking theoretical insights with practical realities and methodological choices.

This chapter outlines the rationale behind selecting the UK and Uganda as the focus of the study. It explores the evolution of entrepreneurship education in both countries, which is critical in establishing the baseline upon which the research is based and for avoiding a one-size-fits-all approach to EE. The historical, cultural, and socio-economic trajectories of EE in these nations provide essential insights into the factors that have shaped current educational practices and policies. This context is fundamentally essential for framing the comparative analysis and ensuring that the research addresses country-specific challenges and opportunities. By understanding the unique ecosystems in which EE operates, this study contributes to the development of more effective, context-sensitive educational frameworks that can be adapted to varying global environments.

3.2 RATIONALE FOR SELECTING THE UNITED KINGDOM

Governments play a crucial role in shaping the EE landscape and nurturing supportive entrepreneurial ecosystems within their nations. Through the implementation of policies, regulatory frameworks, and institutional support mechanisms, they significantly impact both the development of entrepreneurship ecosystems and the success of EE initiatives (Audretsch and Thurik, 2001). While the researcher was based at Birmingham City University (BCU), the focus on the UK was not predetermined. Instead, the selection of the UK as a key focal area for this research stemmed from the following key considerations.

a) Established Educational Frameworks / Global Influence and Benchmarking

The UK is renowned for its robust and well-established educational frameworks and practices, particularly in higher education, making it a valuable benchmark for other countries. British universities are globally recognised for their academic rigour and innovation in curriculum development, which has been instrumental in advancing EE

(HEFCE, 2014; Times Higher Education, 2020). Institutions such as BCU have pioneered research in EE, leading to the development of innovative curricula and environments conducive to entrepreneurial learning (BCU, 2024). Additionally, the presence of world-renowned universities like the University of Cambridge, University of Oxford, and London School of Economics has reinforced the UK's position as a leader in higher education. These institutions contribute significantly to EE through research, policy influence, and partnerships with industry (GOV.UK, 2018). Moreover, the UK's emphasis on integrating entrepreneurship into broader educational frameworks, such as the Quality Assurance Agency's (QAA) guidelines for EE, underscores its global influence in setting educational standards (QAA, 2018).

b) Diverse Entrepreneurial Ecosystem

The UK boasts a diverse and dynamic entrepreneurial ecosystem characterised by a mix of traditional industries and cutting-edge sectors such as technology, finance, and the creative industries (ONS, 2020). This diversity provides a comprehensive view of how different sectors contribute to and benefit from EE. Birmingham, home to BCU and the innovative STEAMhouse initiative, serves as a hub for startups and innovation (BCU, 2024), making it an ideal case study for understanding ecosystem dynamics and their interaction with EE. The UK's entrepreneurial landscape is further enriched by its vibrant startup culture, particularly in cities like London, Oxford, Cambridge, Manchester, and Edinburgh, which have been ranked among the top global startup ecosystems (Startup Genome, 2019; 2020). The presence of tech clusters, financial hubs, and creative industries fosters a multidisciplinary approach to EE, encouraging students to engage with real-world entrepreneurial challenges across various sectors (UKRI, 2021).

c) Emphasis on Research and Innovation

Another crucial factor that influenced the selection of the UK is its strong emphasis on research and innovation. The UK has consistently ranked among the top countries globally for research output and innovation capacity, driven by significant investments in research and development (OECD, 2021). Universities and research institutions in the UK collaborate closely with industries, fostering a culture of innovation and the practical application of

research findings (UKRI, 2021). Institutions like BCU, through initiatives like STEAMhouse, exemplify the integration of research and entrepreneurial practice, providing students with opportunities to engage in interdisciplinary projects that address real-world problems (BCU, 2024). This alignment of research and entrepreneurship creates an environment where theoretical knowledge is seamlessly translated into practical applications, enhancing the effectiveness of EE.

d) Supportive Policy Environment

The UK government has been proactive in supporting entrepreneurship through various policies and initiatives designed to foster a conducive environment for entrepreneurial growth. Programs like the Start Up Loans Scheme, the Enterprise Investment Scheme (EIS), and Innovate UK grants provide financial support and incentives for entrepreneurs, reducing barriers to entry and encouraging innovation (NAO, 2017). Additionally, the UK's policy framework emphasises the importance of entrepreneurship in driving economic growth and addressing societal challenges. The Industrial Strategy, for example, outlines the government's commitment to fostering innovation and entrepreneurship across key sectors of the economy (BEIS, 2017). This supportive policy environment not only facilitates the growth of startups and SMEs but also enhances the role of educational institutions in preparing students for entrepreneurial careers.

In summary, the UK's established educational frameworks, diverse entrepreneurial ecosystem, emphasis on research and innovation, and supportive policy environment make it an exemplary context for studying the interplay between entrepreneurship ecosystems and EE. The insights gained from this study can inform best practices and policy recommendations that are applicable both within the UK and in other socio-economic contexts, such as Uganda.

3.3 RATIONALE FOR SELECTING UGANDA

The choice of comparing the United Kingdom (UK) with Uganda stems from the recognition of the pivotal role of context in shaping EE and ecosystems (Stam, 2015; Jensen et al., 2015). This recognition highlights the need to explore diverse contexts to gain a comprehensive understanding of the factors influencing EE.

Notably, there exists a significant disparity in research attention between developed and developing countries, particularly in Sub-Saharan Africa (Blenker et al., 2014; Cao and Shi, 2021). Uganda, as a representative of the latter, offers a compelling case study due to its stark underrepresentation in the existing literature on the entrepreneurship ecosystem (Figure 27) (Cao and Shi, 2021). The limited academic focus on Uganda provides an opportunity to contribute novel insights into how EE operates within emerging economies, addressing gaps identified in global research publications.

Figure 27: Publications on emerging economy entrepreneurial ecosystems by countries (Cao and Shi, 2021)

| Countries | Total counts | Percentage |
|-------------------------------|--------------|------------|
| China | 5 | 22 |
| Mexico | 4 | 18 |
| Brazil | 3 | 14 |
| India | 3 | 14 |
| South Africa | 2 | 9 |
| Chile | 2 | 9 |
| Malaysia | 1 | 5 |
| Emerging economies in general | 2 | 9 |
| Total ^a | 22 | 100 |

^aSome papers cover more than one emerging economies

Additionally, Birmingham (UK) and Kampala (Uganda), as key cities in the above countries, exhibit distinct socio-economic contexts, including levels of economic development, income distribution, and access to resources. Uganda, as a developing country, faces unique challenges such as limited access to formal education, healthcare, and infrastructure (World Bank, 2023; Ministry of Finance, Planning and Economic Development, 2024). These challenges significantly impact the entrepreneurial landscape, influencing how EE is delivered and received. In contrast, the UK's economy benefits from advanced technological infrastructure, substantial financial resources, and robust institutional support, which collectively foster a conducive environment for business and innovation (Smith, 2012).

Therefore, by juxtaposing these contrasting contexts, this research helps to identify opportunities for enhancing EE in diverse settings. It also helps to bridge the gap in EE research, particularly in underrepresented regions like Sub-Saharan Africa, as highlighted by Cao and Shi (2021). Apart from the disparity in research, the following key factors provide further compelling justifications for conducting a comparative case study between the two countries.

a) Population and Demographic Dynamics

The population and demographic dynamics of Uganda and the UK present distinct contrasts that significantly influence their respective educational landscapes and the implementation of EE. Uganda, with a population of just over 45 million (Figure 29), is one of Africa's most populous countries and is characterised by a predominantly young demographic, with over 75% of its population under the age of 30 (Figure 28) (United Nations, 2021; Uganda Bureau of Statistics [UBOS], 2024).

Figure 28: Uganda's Population Pyramid (UBOS, 2024).

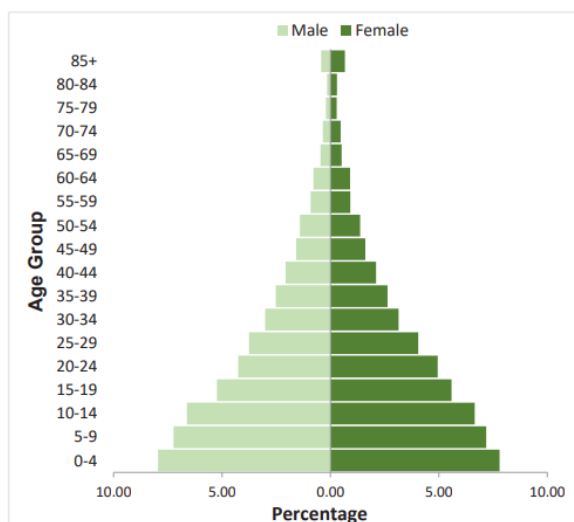
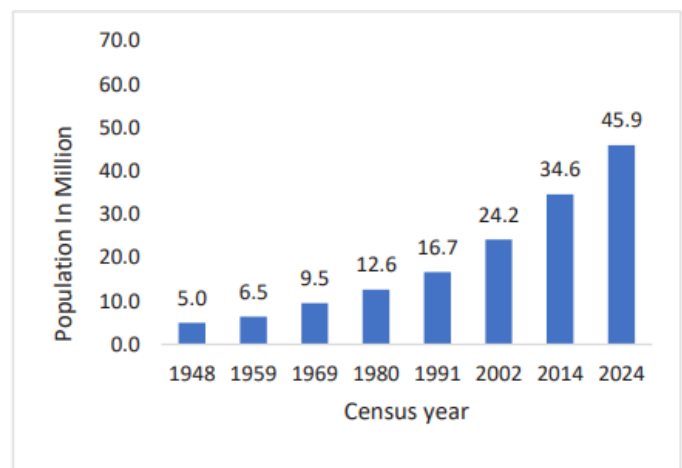


Figure 29: Uganda's Total Population by Census, Year 1948-2024 (UBOS, 2024)

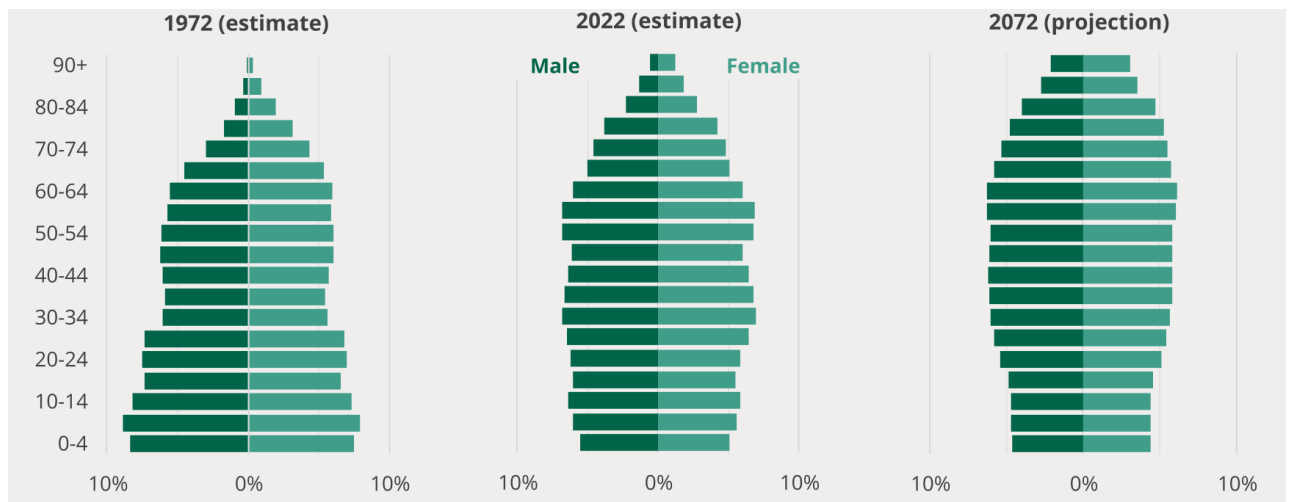


The youthful population in Uganda represents both an opportunity and a challenge for EE. On the one hand, the large youth cohort provides a vast pool of potential entrepreneurs. However, this demographic is also marked by lower levels of formal education and limited access to quality educational resources (GEM, 2014). This situation necessitates the development of tailored EE programmes that address the specific needs and constraints faced by young, aspiring entrepreneurs in Uganda. Research indicates that higher education correlates with greater entrepreneurial capability and the propensity to start high-growth businesses (Davidsson and Honig, 2003; Levie and Autio, 2008). Despite this, Uganda continues to rank as more entrepreneurial than the UK, highlighting the complex interplay between necessity-driven entrepreneurship and opportunity-driven entrepreneurship (GEM, 2014).

In contrast, the UK has a population of just over 68 million (Figure 30), featuring a more balanced age distribution and a diverse demographic with varied educational backgrounds

(Office for National Statistics [ONS], 2022). Additionally, the UK's population benefits from a more extensive and well-established educational infrastructure, supported by world-class institutions and widespread access to higher education (OECD, 2020).

Figure 30: Estimates of the population for England and Wales, UK population estimates 1838 to 2022 (ONS, 2022)



The age-dependency ratio further contextualises these differences. Currently, Uganda's age-dependency ratio stands at 83.8%, indicating a significant economic burden on the working-age population, a situation exacerbated in rural areas where the ratio reaches 98% (Figure 32) (UBOS, 2020). This high dependency ratio places additional pressure on the economic system and underscores the importance of fostering entrepreneurial skills to create employment opportunities and stimulate economic growth.

Figure 31: Uganda's Age Dependency Ratio (UBOS, 2024)

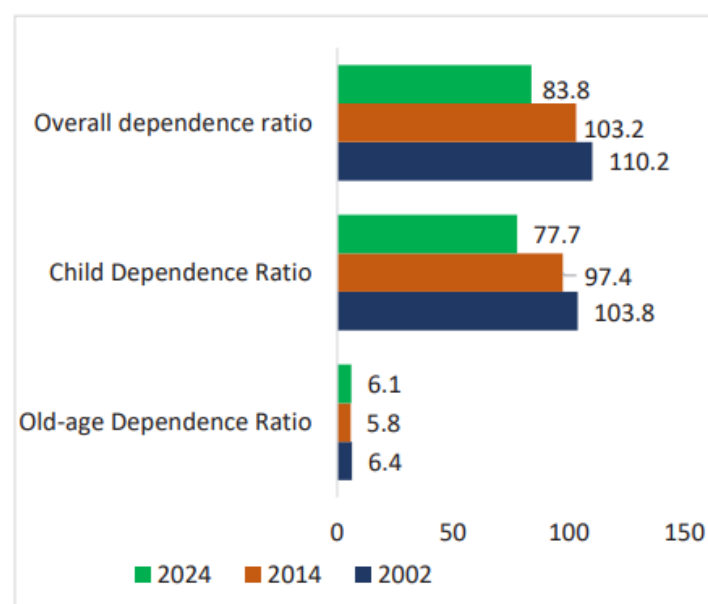
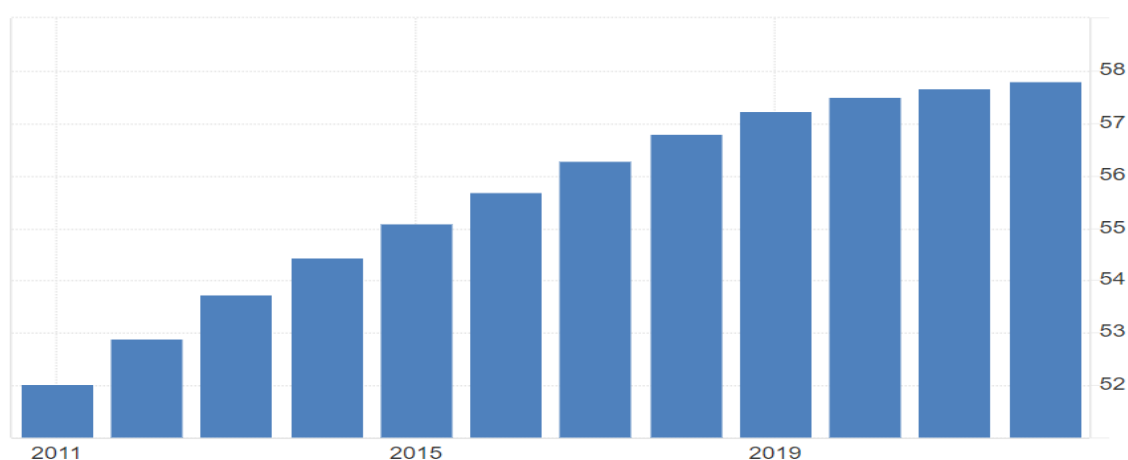


Figure 32: Uganda's Household population by broad age groups and dependency ratios (UBOS, 2020)

| Characteristic | 2016/17 | | | | 2019/20 | | | |
|------------------|-------------------|-------------|------------|------------------|-------------------|-------------|------------|------------------|
| | Age group (years) | | | Dependency Ratio | Age group (years) | | | Dependency Ratio |
| | 0 - 13 | 14 - 64 | 65+ | | 0 - 13 | 14 - 64 | 65+ | |
| Residence | | | | | | | | |
| Rural | 47.9 | 48.5 | 3.6 | 106.2 | 45.5 | 50.5 | 4.0 | 98.0 |
| Urban | 40.5 | 57.5 | 2.0 | 73.8 | 40.4 | 56.8 | 2.8 | 76.1 |
| Uganda | 46.1 | 50.7 | 3.2 | 97.2 | 44.1 | 52.2 | 3.7 | 91.6 |

In contrast, the UK's dependency ratio is considerably lower at 57.82% (Figure 33), reflecting less economic pressure on its working population and enabling greater investment in education and innovation (World Bank, 2022). These demographic contrasts and dynamics provide a robust foundation for this comparative study, highlighting the need for context-specific approaches to EE that address the unique challenges and opportunities presented by each country's demographic profile.

Figure 33: United Kingdom – Age Dependency Ratio (% ge of Working-age Population) (World Bank, 2020)



Source: tradingeconomics.com | World Bank

In summary, the demographic differences between Uganda and the UK highlight the importance of tailoring EE to the specific socio-economic realities of each context. By examining these dynamics, this research developed insights that can inform more effective, responsive EE practices that support sustainable entrepreneurial growth in both developed and developing countries.

b) Socio-Economic Context

Entrepreneurship is widely acknowledged as a key driver of economic growth, political stability, and social well-being (Cantillon, 1755; Schumpeter, 1934;; Hoffman et al., 1998; European Commission, 2003; Zedtwitz, 2003; Thurik and Wennekers, 2004; Briggs, 2009). Governments, particularly in developing countries like Uganda, have increasingly recognised the potential of entrepreneurship programmes to propel their economies toward middle-income status (Private Sector Foundation Uganda, 2024). The socio-economic challenges in Uganda, including high unemployment rates, limited access to capital, and infrastructural deficits, necessitate innovative entrepreneurial solutions. Indeed, these challenges foster a unique form of entrepreneurial resilience and ingenuity that can offer valuable lessons for EE globally (World Bank, 2023), and this comparative study provides a unique opportunity to examine how different socio-economic and ecosystem dynamics influence entrepreneurship education (EE) and its outcomes.

i. Global Entrepreneurship Monitor (GEM) Index

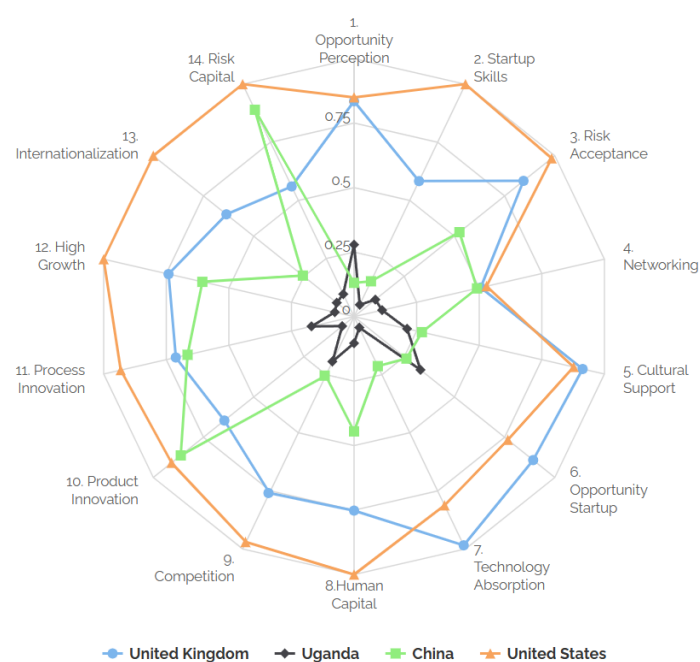
The Global Entrepreneurship Monitor (GEM, 2014) ranked Uganda as the most entrepreneurial country globally due to its high Total Entrepreneurial Activity (TEA). Despite this, Uganda faces significant challenges in sustaining its entrepreneurial ventures. This is partly because many of these ventures are born out of necessity rather than opportunity, which is often detrimental in underdeveloped ecosystems (van Stel, Carree and Thurik, 2005), and because the Ugandan entrepreneurial landscape is characterised by a lack of access to resources, inadequate infrastructure, and limited institutional support, further exacerbating the high failure rates among new businesses (Business Focus, 2018; Achiro and Mwesigwa, 2019).

In stark contrast, the UK, while exhibiting lower Total Entrepreneurial Activity rates, has a more developed entrepreneurial ecosystem characterised by robust support structures, including access to finance, mentorship programmes, and a well-defined legal framework that supports business growth and sustainability (Smith, 2023). This difference underscores the critical role that ecosystem maturity plays in sustaining entrepreneurial ventures and highlights the importance of tailored EE approaches that consider these contextual differences.

ii. Global Entrepreneurship and Development Index (GEDI) Differences

The Global Entrepreneurship and Development Index (GEDI) offers a comparative analysis of countries' entrepreneurial attitudes, abilities, and aspirations (Acs, Szerb and Lloyd, 2017). Uganda, despite its high entrepreneurial activity (Rarick et al., 2013; GEM, 2014), ranks low on this index, underscoring the gap between entrepreneurial intentions and actual economic outcomes (Figure 34). This discrepancy illustrates the challenges faced by Ugandan entrepreneurs in converting entrepreneurial activity into sustainable economic growth, a challenge less pronounced in the UK, where supportive ecosystems are more able to bridge the gap between entrepreneurial activity and economic success (Department for Science, Innovation and Technology, 2023; OFCOM, 2023; 2024). The UK's higher GEDI ranking reflects its comprehensive support for entrepreneurs, including access to advanced technologies, skilled labour, and favourable regulatory environments, all of which facilitate the transformation of entrepreneurial intentions into impactful economic activities (Figure 34Error! Reference source not found.). This comparison between UK and Uganda, with the latter's unique challenges (World Bank, 2024), offers an important contrast to the predominantly Western-focused research on EE (Blenker et al., 2014) and highlights the need for EE programmes in Uganda to address systemic barriers that hinder entrepreneurial success – which this study contributes to.





Figure 34: Global Entrepreneurship and Development Institute (GEDI)'s pillars showing Uganda, the UK, USA and China (GEDI, 2024).



iii. Global Innovation Index (GII)

The Global Innovation Index (GII) further accentuates the disparities between Uganda and the UK regarding innovation capabilities. The UK, ranking 5th globally, benefits from a highly developed innovation ecosystem supported by strong research institutions, robust intellectual property protections, and ample access to capital (World Intellectual Property Organisation, 2024). This environment not only fosters innovation but also integrates it into the broader entrepreneurial ecosystem, enhancing the overall effectiveness of EE. Conversely, Uganda ranks significantly lower at 121st on the GI (Figure 35), reflecting substantial challenges such as inadequate research infrastructure, limited funding opportunities, and weak regulatory frameworks that impede innovation (WIPO, 2024). These challenges limit the scope and effectiveness of entrepreneurship and innovation-driven education, necessitating a tailored approach to EE that considers these systemic limitations.

Figure 35: Global Innovation Index Rankings of UK and Uganda (WIPO, 2024)

| Rank ↕ | Name | Score ↕ | Rank ↕ | Name | Score ↕ |
|--------|---|---------|--------|--|---------|
| 1 |  Switzerland | 67.5 | 121 |  Uganda | 14.9 |
| 2 |  Sweden | 64.5 | 122 |  Guatemala | 14.6 |
| 3 |  U.S. | 62.4 | 123 |  Cameroon | 14.4 |
| 4 |  Singapore | 61.2 | 124 |  Nicaragua | 14 |
| 5 |  UK | 61 | 125 |  Myanmar | 13.8 |
| 6 |  South Korea | 60.9 | 126 |  Mauritania | 13.2 |
| 7 |  Finland | 59.4 | 127 |  Burundi | 13.2 |
| 8 |  Netherlands | 58.8 | 128 |  Mozambique | 13.1 |
| 9 |  Germany | 58.1 | 129 |  Burkina Faso | 12.8 |
| 10 |  Denmark | 57.1 | 130 |  Ethiopia | 12.3 |
| 11 |  China | 56.3 | 131 |  Mali | 11.8 |
| 12 |  France | 55.4 | 132 |  Niger | 11.2 |
| 13 |  Japan | 54.1 | 133 |  Angola | 10.2 |
| 14 |  Canada | 52.9 | | | |

iv. Structural Differences Between the UK and Uganda's Entrepreneurship Ecosystems

The entrepreneurship ecosystems in the UK and Uganda are shaped by distinct structural differences, reflecting their unique socio-economic, political, and institutional contexts.

These structural variations play a significant role in influencing entrepreneurial activity, the development of EE, and the broader dynamics of economic growth in each country.

In the UK, the entrepreneurship ecosystem is characterised by a highly developed infrastructure, robust financial markets, and strong institutional support. Access to finance through venture capital, angel investors, and government-backed schemes such as the Enterprise Investment Scheme (EIS) and Start Up Loans has been pivotal in supporting entrepreneurial ventures (Department for Business, Energy and Industrial Strategy, 2023). Additionally, the UK's well-established legal and regulatory framework ensures intellectual property protection, contract enforcement, and business-friendly policies that encourage innovation and entrepreneurship (World Bank, 2022). The UK also benefits from a mature network of support institutions, including business incubators, accelerators, and university-based innovation hubs. These institutions foster collaboration between academia and industry, providing entrepreneurs with access to resources, mentorship, and research facilities (UKRI, 2021). The presence of world-renowned universities and research institutions, coupled with a culture of innovation and risk-taking, has also positioned the UK as a global leader in entrepreneurial activity (GEM, 2023).

In contrast, Uganda's entrepreneurship ecosystem is still in its developmental stages, marked by significant structural challenges. Limited access to finance, inadequate infrastructure, and weak institutional frameworks pose substantial barriers to entrepreneurial growth (World Bank, 2023). Entrepreneurs in Uganda often rely on informal sources of funding, such as family and community networks, due to the lack of formal financial services and high-interest rates from commercial lenders (Private Sector Foundation Uganda, 2024).

The regulatory environment in Uganda is also less supportive compared to the UK, with bureaucratic hurdles, inconsistent policy implementation, and limited legal protections for businesses. These factors contribute to a high level of informality in the entrepreneurial sector, where many businesses operate outside formal regulatory frameworks (Achiro and Mwesigwa, 2019). Additionally, Uganda faces infrastructural deficits, including unreliable electricity, poor transportation networks, and limited access to technology, all of which

hinder business operations and growth (Ministry of Finance, Planning and Economic Development, 2024).

Despite these challenges, Uganda's entrepreneurship ecosystem exhibits unique strengths, particularly in the areas of resilience and innovation in response to resource constraints. The country's young and dynamic population drives a high rate of entrepreneurial activity, often out of necessity rather than opportunity (GEM, 2014). Community-based entrepreneurship and social enterprises play a significant role in addressing local challenges and creating sustainable livelihoods (Nangoli et al., 2023).

The above structural differences between the UK and Uganda's entrepreneurship ecosystems provide a rich context for this study's comparative analysis. As the study explored the effect of the ecosystem on the choice and effectiveness of entrepreneurship education pedagogy, these variations offered an invaluable backdrop within which to explore how diverse entrepreneurship ecosystems influence the design, implementation, and outcomes of EE especially in both developed and developing contexts.

c) Cultural Differences

One of the critical aspects of an entrepreneurship ecosystem is culture, which Hofstede (1991) defined as "*the collective programming of the mind which distinguishes the members of one group or category of people from another*" (Hofstede, 1991, p.5). Although Hofstede's work primarily focused on corporate environments, its relevance extends to understanding entrepreneurial traits across different cultural contexts. For instance, individualism versus collectivism and uncertainty avoidance, provide a framework for comparing how cultural values influence entrepreneurial behaviour in different countries (Hayton, George, and Zahra, 2002). Culture influences perceptions of risk, innovation, opportunity recognition, and the desirability of entrepreneurial careers (Ajzen, 1991; Hofstede, 1991; Hayton, George, and Zahra, 2002; McMullen and Shepherd, 2006).

Uganda's rich cultural diversity offers a unique lens through which to examine the influence of culture on EE. With 56 legally recognised ethnic groups, each with distinct traditions, customs, beliefs, and languages, Uganda presents a complex cultural mosaic that significantly affects entrepreneurial attitudes and practices (Winter, 2013). This diversity

stems from a colonial legacy that amalgamated various ethnic groups under a single national identity (Figure 36), leading to a dynamic interplay between traditional values and modern entrepreneurial practices.

Figure 36: Different Cultural Groups of Uganda (Minority Rights Group, 2001)



Based on Minority Rights Group International's 'Ethnic Groups and Tribes of Uganda', Uganda: The Marginalization of Minorities (2001). Boundaries are not definitive but are intended to show traditionally inhabited areas.

This contrasts sharply with the UK, where a more homogenised national culture is interwoven with the influences of multiculturalism, especially in urban areas (ONS, 2011). Culture helps to understand the underlying factors that might be driving EE. For instance, experiential learning and collaborative projects may resonate more in collectivist cultures, whereas individual projects and competitive frameworks may be more effective in individualistic societies (Mueller and Thomas, 2001). In Uganda, the cultural emphasis on community and collective well-being often shapes

entrepreneurial activities towards social enterprises and community-focused ventures. Conversely, the UK's more individualistic culture fosters a focus on personal achievement and innovation-driven entrepreneurship.

Furthermore, cultural support within an ecosystem regulates entrepreneurial action by shaping its perceived desirability (Ajzen, 1991; McMullen and Shepherd, 2006). The Global Entrepreneurship and Development Institute (GEDI, 2019) highlights significant differences between the UK and Uganda in its Cultural Support Pillar, which measures societal attitudes towards entrepreneurship, including its status as a desirable career choice and the societal impact of corruption. Collectively, these differences are crucial for understanding how national culture influences the effectiveness and outcomes of EE – a debate to which this research contributes.

In Uganda, traditional norms and societal expectations can both hinder and promote entrepreneurship. For example, gender roles and expectations may limit women's participation in entrepreneurial activities, while strong familial networks can provide critical support for business ventures. In contrast, the UK's cultural environment, with its emphasis on gender equality and meritocracy, offers different opportunities and challenges for entrepreneurs.

The role of corruption and trust in institutions also varies significantly between the two countries, affecting the entrepreneurial landscape and the implementation of EE. In Uganda, higher levels of perceived corruption have been documented to deter formal business ventures and shift entrepreneurial activities towards the informal sector. The UK, with its stronger institutional frameworks and lower levels of corruption, provides a more stable environment for entrepreneurs, influencing the design and delivery of EE programmes. (World Bank, 2023).

As part of the ecosystem domains explored in this study, culture's impact on entrepreneurship education (EE) is both profound and multifaceted, making the comparative analysis between the UK and Uganda particularly valuable. Since the return on investment in EE may vary significantly depending on national culture, as noted by Oo et al. (2018), the cultural differences between Uganda and the UK present a rich context for examining the interplay between culture, entrepreneurship – offering valuable insights for the development of culturally responsive EE frameworks that can be applied globally.

d) Emerging Educational Frameworks and Policy Reforms

Uganda has made significant strides in reforming its educational policies to incorporate entrepreneurship at various levels of education. The integration of EE into national curricula reflects a growing recognition of entrepreneurship as a vital tool for economic development, job creation, and poverty reduction (Ministry of Education and Sports, 2022). Initiatives such as the Skilling Uganda Strategic Plan and the introduction of entrepreneurship subjects in secondary and tertiary education signify the country's commitment to fostering an entrepreneurial mindset among its youth (Nangoli et al., 2023). However, these frameworks are still in their formative stages, characterised by uneven implementation, resource constraints, and varying levels of institutional support. This

nascent stage presents an invaluable opportunity to study the development, challenges, and effectiveness of Uganda's EE initiatives in comparison to the more mature and structured systems in the UK.

The UK's EE landscape, guided by well-established frameworks like the Quality Assurance Agency for Higher Education (QAA) guidelines, benefits from decades of refinement and integration into broader educational and economic policies (QAA, 2018). Therefore, the juxtaposition of Uganda and the UK offers a unique comparative lens for understanding how different stages of educational policy development impact the effectiveness of EE. While the UK provides a model of established best practices, Uganda offers insights into the challenges and innovations emerging in a developing context. This comparison enables a holistic analysis of how policy frameworks influence entrepreneurial skill development, the adaptability of educational methods, and the role of contextual factors such as cultural and socio-economic dynamics (Fayolle and Gailly, 2015) in EE. It also aligns with global educational trends emphasising the need for contextualised EE frameworks that address specific regional needs and opportunities (European Commission, 2021).

In conclusion, as the UK navigates post-Brexit economic landscapes with a focus on innovation and global competitiveness, Uganda grapples with leveraging entrepreneurship as a means to achieve sustainable development goals (SDGs) and transition towards a knowledge-based economy (United Nations Development Programme, 2023). The country's significant developmental challenges notwithstanding, it has initiated various programs aimed at supporting entrepreneurship, such as the Youth Livelihood Program and the Uganda Women Entrepreneurship Program (Ministry of Gender, Labour and Social Development, 2022). These initiatives, though relatively nascent compared to UK policies, reflect a growing institutional commitment to fostering entrepreneurship. Therefore, selecting Uganda for comparison with the UK allows for a rich, contextual analysis of how different socio-economic, cultural, and institutional factors influence EE. This comparative approach not only enhances the academic understanding of EE in diverse contexts but also provides practical insights for policymakers and educators aiming to improve entrepreneurship ecosystems globally.

3.4 EVOLUTION OF ENTREPRENEURSHIP EDUCATION IN THE UK AND UGANDA

To fully understand the current landscape of entrepreneurship education (EE) in both the UK and Uganda, it was essential to trace the historical development and periodic emergence of EE within each country. Understanding this historical trajectory helped to provide a foundation for analysing the maturity and effectiveness of EE frameworks in each of the countries, and offered insights into the socio-economic, political, and cultural factors that have shaped the educational frameworks and pedagogical approaches employed in each country to date.

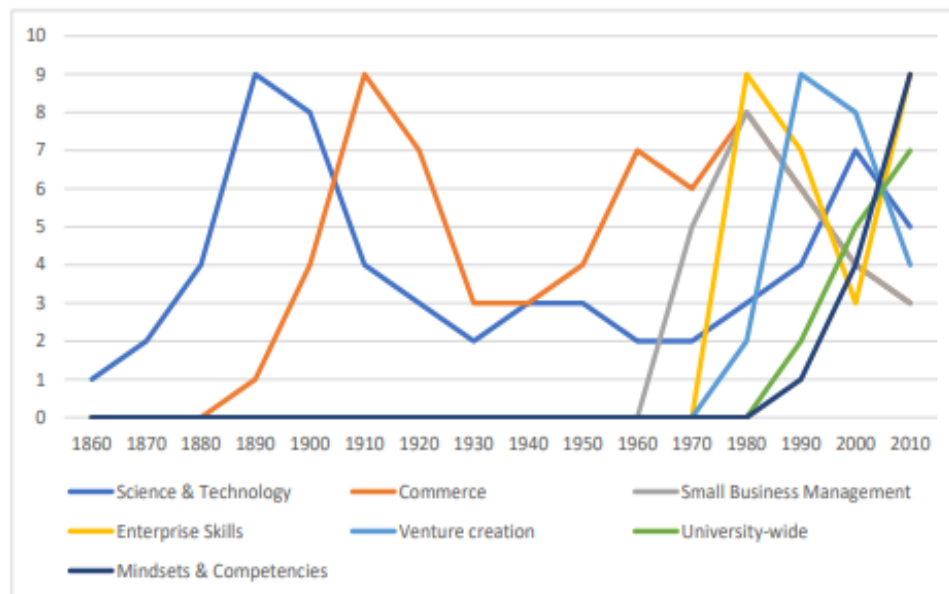
The UK, with its long-standing tradition of higher education excellence and economic innovation, has seen EE evolve from informal training within trade and industry to formalised academic programmes integrated into university curricula (Gibb, 2002; Pittaway and Cope, 2007). In contrast, Uganda's journey with EE is more recent and reflects the country's broader socio-political and economic transitions. From colonial education systems focused on administrative roles to post-independence efforts aimed at economic self-sufficiency and development, Uganda's EE landscape has been shaped by both local needs and global influences. The integration of entrepreneurship into formal education is part of a broader strategy to address high unemployment rates, stimulate economic growth, and foster innovation in a rapidly changing socio-economic environment (Nangoli et al., 2023; Ministry of Education and Sports, 2022).

This section is included to provide a comprehensive understanding of the historical and contextual factors that have influenced the development of EE in both countries. By exploring the evolution of EE in the UK and Uganda, this research highlights the unique trajectories and shared challenges faced by each nation. This comparative analysis not only contextualises the current state of EE but also informs the development of adaptive, context-sensitive educational strategies that can enhance entrepreneurial outcomes across diverse settings.

3.4.1 EVOLUTION OF ENTREPRENEURSHIP EDUCATION IN THE UK

As captured in Figure 37 (Pittaway, et.al 2023), the evolution of EE in the UK can be traced through distinct phases, each influenced by broader social, economic, and political developments. This section provides an overview of the historical trajectory of EE in the UK, highlighting key developments, themes and trends over time.

Figure 37: Strands of Entrepreneurship Education in the United Kingdom 1860-2020 (Pittaway et.al, 2023)



i. The Industrial Revolution Period

Historically, UK universities were primarily focused on producing clergy, reflecting their close ties with the church (The Medieval University, 2007). It wasn't until the mid-17th century that they began evolving into institutions for professions such as banking and politics. Until then, skills were often acquired through family apprenticeships (Ruef, 2020). The emergence of EE in the 19th century in the United States and Germany influenced the UK, which, in response to industrial advancements and competition, began to emphasise technical education (Wadhwani and Viebig, 2021). This led to the establishment of technical colleges and polytechnics that putting practical and vocational training at the centre of education (Pratt, 1997; Sanderson, 1972). Subsequently, several technical colleges and polytechnics were established further emphasising practical education and vocational training (Gray, 1912).

Inevitably, this put other disciplines such as EE on a backfoot (Brown et al., 1996; Tiratsoo, 1998). It was the Scottish universities that were pioneers in integrating academic entrepreneurship into higher education, followed by English civic universities like Manchester, Liverpool, and Leeds, which connected education with industry needs (Sanderson, 1972; Rose et al., 2013). This early stage of EE in the UK focused on aligning education with the demands of rapidly evolving industries and fostering "*scientifically trained*" entrepreneurs, particularly among the children of industrialists (Sanderson, 1972; Jones, 2019). Despite these efforts, the UK lagged behind the US and Germany in commercial education, where such education was more advanced (Jones, 2019). Overall, the UK's early EE efforts reflected a national interest in fostering industrial innovation through education, albeit with some delays compared to international counterparts.

ii. The Applied Economics' Phase.

During the Applied Economics phase, the development of EE in the UK was heavily influenced by commercial education initiatives that had emerged in the United States in the 1820s, focusing mainly on business law, accounting, and practical applications like business simulations (Wadhwani and Viebig, 2021). By the 1890s, this trend began to shape UK educational institutions, driven by key legislative changes such as the Limited Liability Acts of 1856-1862, which emphasised the importance of accountancy training (Ireland, 1984), the growing complexity of production management, and the need to address labour militancy and industrial relations issues - which further heightened the focus on economics as a key area of study (Sanderson, 1972).

Recognising a gap in commercial education, the UK saw the establishment of key institutions like the London School of Economics (LSE) the Faculty of Commerce at Birmingham University, and the Cambridge Economics department. Birmingham's initiative was notably influenced by a study delegation to the US in 1898, led by Arthur Chamberlin, which underscored the benefits of close ties between academia and industry. This led to the proposal of a faculty of commerce at Birmingham, which mirrored the US approach by involving industry professionals in teaching and advisory roles (Pressey, 2017). The success of Birmingham's initiative spurred other UK universities to offer programmes in "applied economics" eventually shifting towards "commerce" (Sanderson, 1972, p. 207). Even then,

this phase of EE was more aligned with management and international business as opposed to today's kind of EE (Sanderson, 1972). This was partly because this strand of EE was focused on training individuals from merchant and industrialist families, primarily third-generation entrepreneurs involved in running family businesses (Sanderson, 1972).

iii. The 1960s: Higher Education Explosion

During the 1960s, the focus in the UK shifted from training entrepreneurs to training managers, influenced by post-war labour shortages and the evolving nature of business ownership. As companies grew and moved away from family ownership, there was an increasing need for higher education-trained managers to handle the complexities of these larger enterprises. This led to the emergence of "*industrial administration*", a form of management education that emphasised practical business skills over traditional commerce education (Dimock, 1956; Ivory et al., 2006; 2011).

After World War II, concerns about deficiencies in science and technology prompted further expansion of universities in the 1940s and 1950s. This period also saw management education evolve to include more mathematics and analytical skills (Dimock, 1956). One significant development in the 1960s was the establishment of new universities across the UK, including the transformation of thirty technical colleges into polytechnics. These institutions introduced vocational subjects and sandwich degrees, combining academic study with industry experience (Ivory et al., 2006; 2011).

In terms of modern business education in the UK, two notable developments emerge during this period. First, the establishment of new management schools at Lancaster and Warwick, which set the stage for modern business education in the UK. Additionally, the (\$9 million) US Marshall grant provided funding for UK to build US style postgraduate and post-experience business education (Sanderson, 1972; Locke, 1989), leading to the formation of graduate business schools at institutions like the London School of Economics and Manchester (Pullan and Abendstern, 2000).

Despite these initiatives inspiring other universities to establish modern business schools during the 1960s (Tiratsoo, 1998), EE remained limited during this period, with the exception of the "Young Enterprise" programme founded by Sir Walter Salomon in 1962,

and modelled after the US programme "Junior Achievement" which initially focused on business education in secondary schools.

iv. Focus From Large Companies to Small Medium-Sized Enterprises (SMEs)

In the UK, EE developed later than in the US, primarily because UK business education in the 1960s was focused on large companies, with little emphasis on small and medium-sized enterprises (SMEs). In fact, teaching entrepreneurship and small business management was often considered unconventional within academia (Watkins and Stone, 1999). The shift towards SMEs began with the 1971 "Bolton Report", which recognised the crucial role of small firms in economic growth (Bolton, 1971). This led to the introduction of the first entrepreneurship programmes as electives in postgraduate courses, such as those at Manchester Business School, which became popular and influenced similar initiatives across other institutions (Wapshott and Mallett, 2022).

In response, programmes like the National Small Business Management Teachers Programme (1977) and the United Kingdom Enterprise Management and Research Association (now ISBE) were developed to train university staff in teaching small business management and promote research collaboration with SMEs. Additionally, the New Enterprise Programme at Manchester Business School was introduced to help senior managers start their own ventures (Watkins, 1979). However, during this period, a gap remained as most academic efforts focused on researching SMEs rather than providing practical education tailored to their needs (Watkins and Stone, 1999).

v. The "Thatcherite Entrepreneurs"

The late 1980s marked a significant shift in EE in the UK, with a growing focus on small business management and the fostering of enterprise skills. This change was driven by initiatives like the Manpower Services Commission's start-up courses, which aimed to help unemployed individuals start their own businesses, reflecting the increasing importance of entrepreneurship in the UK economy (Kirby, 1982; Watkins and Stone, 1999). Despite initial reluctance from universities, key developments occurred, such as Allan Gibb's establishment of the Small Business Centre at Durham University, which became a pioneering model for EE in the UK. Gibb's success influenced other universities, including the Scottish Enterprise Foundation at Stirling University, to adopt similar approaches (Vesper and Gartner, 1997).

Simultaneously, the rise of small and medium-sized enterprises (SMEs) as major job creators (Birch, 1979) aligned with the political and economic climate under Prime Minister Margaret Thatcher. Her government's right-wing, capitalist policies, which emphasised reduced state intervention, further promoted an enterprise culture and shifted EE's focus toward venture creation and self-employment as alternatives to unemployment (Pittaway et al., 2023). This led to a proliferation of programmes and initiatives, including the Shell Technology Enterprise Programme (STEP) and the Graduate Apprenticeship Programme (GAP) at Durham University, which introduced students to entrepreneurship through experiential learning (Pittaway et al., 2023). Organisations like the Royal Society of Arts also advocated for education that emphasised practical skills and problem-solving, while schemes such as the “Enterprise in Higher Education” initiative by the Manpower Services Commission also aimed to embed enterprise activities in higher education institutions – thereby creating the so called “Thatcherite Entrepreneurs” (Brown, 1990; Kirby, 1992; Stanworth, 2014; Bannock, 2014).

By the end of the decade, EE had gained significant traction, with efforts to establish it as a distinct academic discipline despite some academic scepticism about its practicality (Elton, 1991, 1995; Wright, 1992; Bridges, 1992; MacDonald and Coffield, 1991; Coffield, 1992; Grant, 1986; Erkkila, 2000).

vi. “For” and “About” Entrepreneurship

In the 1990s, EE in the UK shifted focus from merely promoting enterprise skills to supporting existing SMEs. This change was driven by a significant increase in new businesses and the need to enhance the quality and competitiveness of these SMEs rather than just increasing their numbers (Storey and Greene, 2010). This period saw the devolution of policy support for small businesses, with the establishment of Training and Enterprise Councils (TECs) and Business Links to offer localised and regional assistance (Greene, 2002). Additionally, the Small Firms Enterprise Development Initiative (SFEDI) was introduced to create nationally recognized standards for small businesses (SFEDI, 1999).

A crucial realisation during this time was that entrepreneurs with degrees and access to financial capital were more likely to succeed (Bates, 1990). Consequently, there was a growing emphasis on supporting graduates who might take on leadership roles in expanding

companies, aligning with the broader policy narrative of enhancing existing SMEs (Burke et al., 2001). This led to a variety of EE approaches, including management development for SME owners, degrees focusing on new venture creation, and practical training for technology-based start-ups (Storey and Greene, 2010).

This period also witnessed the emergence of two distinct strands of EE: "*for entrepreneurship*" and "*about entrepreneurship*", each with different teaching and assessment approaches (Levie, 1999). While the former focused on providing students with practical entrepreneurial experiences, the latter remained largely theoretical (Ohe, 1996).

Meanwhile, internationally, there was a growing trend towards full degree programmes in EE, supported by new theoretical models like the concept of the entrepreneurial university (Clarke, 1998) and the "Triple Helix Model" which describes the collaborative interaction between universities, industry, and government to drive innovation and economic development (Etzkowitz and Leydesdorff, 1995). The 1990s also marked the expansion of EE through the establishment of academic chairs, PhDs, and research centres focused on entrepreneurship, signifying that EE had become genuinely mainstream (Stone and Watkins, 1999). This interest especially by researchers and academics laid the groundwork for future research and critical evaluation upon which today's EE is built (Curran and Stanworth, 1989; Cox, 1996; Gibb, 1996; Garavan and Ó Cinnéide, 1994; Jennings and Hawley, 1996).

vii. The Blair Years

During Tony Blair's tenure as Prime Minister starting in May 1997, the UK government implemented several significant policies that impacted EE. Blair's New Labour government, with its centrist approach, initiated devolution, granting educational policy-making powers to Wales, Northern Ireland, and Scotland, leading to varied approaches to EE across the UK (Price, 2004). However, educational policy in England remained centralised, although Regional Development Agencies (RDAs) were established in 1998 to promote regional development. These agencies, like the North-West Regional Development Agency (NWDA), supported universities in developing innovative EE programmes tailored to regional needs (Rose et al., 2013)., while others, like the South East England Development Agency (SEEDA), provided grants for EE courses and programmes through regional networks such as the Higher Education Enterprise Group (HEEG) (Watkins and Stone, 1999; Pittaway et al., 2023).

One of the key developments during this period was "The Dearing Report" of 1997, which recommended expanding EE in universities, particularly programmes focused on venture creation – particularly recommendation 40. This was further supported by the 1998 White Paper on Competitiveness, which advocated for more EE in higher education institutions (Levie, 1999). Inspired by U.S. institutions like MIT, there was a growing emphasis on entrepreneurship in non-business disciplines such as science, engineering, and technology, leading to a surge in university-wide EE programmes.

Drawing inspiration from US institutions like Massachusetts Institute of Technology (MIT), there was a general appreciation of the potential of non-business disciplines of science, engineering, and technology for venture creation. This saw a surge in university-wide EE, with universities offering more entrepreneurship related courses, particularly extracurricular activities (Price, 2004). To further bolster this, the UK Treasury launched the "Science Enterprise Challenge" (SEC), a £25 million competition to establish eight "institutes of enterprise" focused on teaching entrepreneurship in STEM subjects. This initiative evolved into the UK Science Enterprise Centres (UKSEC) and later Enterprise Educators UK, involving over 60 universities and significantly expanding the scope and impact of EE in the UK (EEUK, 2024).

viii. Skills Perspectives: Entrepreneurship Vs Enterprise Vs Employability

From 2010 onwards, the focus within UK higher education began shifting more prominently towards employability skills, alongside traditional entrepreneurship education (EE). This period saw entrepreneurship gaining visibility through popular television programmes like the BBCs "*Dragon's Den*" and "*The Apprentice*", which featured "graduate entrepreneurs" and inspired students to pursue entrepreneurial endeavours (Rae et al., 2012; BBC, 2024). Universities started incorporating entrepreneurial terminology into their mission statements, reflecting a broader institutional commitment to fostering entrepreneurship (Pittaway et al., 2023). A defining feature of this era was the rapid expansion of extracurricular activities aimed at equipping students with entrepreneurship skills. However, most of these initiatives were voluntary and non-credit bearing until recent years (Pittaway et al., 2023).

Amidst ongoing discussions about the distinction between employability and entrepreneurship skills, a formal differentiation between enterprise education and EE also emerged. Enterprise education began focusing more on developing specific skills and competencies, while EE concentrated on imparting the knowledge and techniques necessary to become a successful entrepreneur (Rae et al., 2012; Pittaway et al., 2023).

During this period, academic research in EE continued to thrive, leading to new frameworks for entrepreneurial competencies, such as the European Commission’s “*EntreComp*”, which outlines fifteen key entrepreneurship competencies (Bacigalupo, et.al, 2016; European Commission, 2016). The UK’s QAA also issued guidance emphasising the distinction between curriculum-based and extracurricular learning and encouraging universities to develop experiential learning methodologies to enhance entrepreneurial competencies (QAA, 2018). This period continued to witness significant growth in university-wide efforts to promote entrepreneurship, particularly through co-curricular and extracurricular initiatives (Pittaway, et al., 2023; Rae et al., 2012; QAA, 2018; 2012; Schindehutte and Morris, 2016).

More recently, however, EE in the UK has expanded from simply teaching entrepreneurship to fostering broader employability skills, especially through extracurricular programmes and university-wide initiatives (Pittaway et al., 2023). This period has seen the formal differentiation between *enterprise education* (focused on general employability skills) and *entrepreneurship education* (focused on business creation and innovation) (Rae et al., 2012; QAA, 2018).

Below is a tabular presentation (Figure 38) of the emergence of EE in the United Kingdom, capturing key milestones and shifts in educational focus over time.

Figure 38: Periodic emergence of EE in UK (Source: Own Compilation)

| Period | Key Theme | Implication / Focus |
|--------|--|---|
| 1970s | The Applied Economics’ Phase and emergence of EE | Efforts focused on imparting practical skills and knowledge related to small business management, reflecting growing recognition of entrepreneurship as a driver of economic growth and innovation. |
| 1980s | The “Thatcherite Entrepreneurs” | Educational initiatives aimed at cultivating an entrepreneurial mindset. Away from self-employment, the focus here was the promotion of enterprise skills among students. |
| 1988 - | Expansion and | By the late 1980s, EE had gained institutional recognition and |

| | | |
|---------------------|---|---|
| 1990 | Diversification of EE Policy Shifts and Institutionalisation | policy support, with governments around the world implementing initiatives to promote entrepreneurial activity. This period saw the establishment of dedicated entrepreneurship centres, academic programs, and funding mechanisms, signalling a shift towards more structured and formalised approaches to EE. |
| 1990 - 1995 | Globalisation and Knowledge Economy | The early 1990s marked a period of globalisation and rapid technological advancement, shaping new urgency for EE. Efforts increasingly focused on enhancing the competitiveness and growth potential of small and medium-sized enterprises (SMEs), with a growing emphasis on quality over quantity. The era also witnessed the internationalisation of EE, with the emergence of theoretical models and academic networks. |
| 1995 - 2000 | University Engagement and Research | It is in the late 1990s that universities really emerged as key players in EE, with a growing emphasis on integrating entrepreneurial principles across disciplines. This period also witnessed a surge in academic research and scholarship on EE, leading to the establishment of specialised journals and conferences focused purely on EE. |
| 1990 - 1997 | Small Business Support Training for Competitiveness and Growth | In the UK, entrepreneurship imaginaries of the 1990s shifted towards policies aimed at supporting existing SMEs and fostering new venture creation. Initiatives such as Training and Enterprise Councils (TECs) and Business Links were established to provide support services and training programs, reflecting a broader societal transition towards an entrepreneurial culture. |
| 1997 - 2010 | The Blair Years University-wide EE | <p>This period witnessed a proliferation of university-wide EE efforts, driven in part by the Labour government's initiatives and shifts in educational policy.</p> <p>Universities across the UK established entrepreneurship centres and expanded curricular and extra-curricular offerings, aiming to cultivate entrepreneurial mindsets and skills among students</p> |
| 2010 - 2020s | Enterprise Mindsets and Competencies | In the 2010s, EE evolved to focus on entrepreneurial mindsets and competencies, alongside a renewed emphasis on employability and skills development. This period saw the emergence of new frameworks, as well as a growing recognition of the importance of experiential learning and university-wide approaches to EE. |

3.4.2 EVOLUTION OF ENTREPRENEURSHIP EDUCATION IN UGANDA

The evolution of education, and by extension EE in Uganda has been shaped by a combination of historical, political, and economic factors, reflecting the broader challenges and transformations within the country's turbulent political and educational landscape, which can be categorised into three major periods, as outlined below.

i. Pre-Independence Education Landscape

The origins of formal education in Uganda can be traced back to the late 19th century, with the arrival of British missionaries in 1877. These missionaries, apparently concerned with spreading Christianity, laid the groundwork for Uganda's education system by introducing literacy and Western values to the indigenous population (Beck, 1966). The primary focus of education during this period was religious instruction, with an emphasis on converting Ugandans to Christianity and teaching them to read the Bible. As a result, the initial education system was closely tied to religious missions, and the British colonial administration did not officially prioritise education as a key function of governance.

By 1894, Uganda had become a British Protectorate, and the colonial administration continued to rely heavily on missionary bodies to provide education to the local population. The government's involvement in education was minimal, as evidenced by the absence of a dedicated department for education among the 15 government departments in 1903 (Hussey, 1937; Motani, 1979). The reliance on missionary schools resulted in a fragmented education system, with three parallel systems established by different missionary organizations: the Church Missionary Society, the White Fathers' Mission, and the Mill Hill Mission. These systems operated independently, with limited coordination or oversight from the government (Beck, 1966).

Soon, it became apparent that educational landscape primarily served the elite, leaving the majority of the population from impoverished backgrounds unable to afford formal education, thus perpetuating widespread illiteracy and inequality of outcomes among the masses (New Vision, 2012; World Bank, 1990). The early 20th century saw increasing recognition of the importance of education for native administration. As education became more popular among Ugandans as it provided qualifications for government service,

offering a path to social mobility, it prompted the colonial government to take a more active role in shaping the education system. In 1925, the British Protectorate government established the Directorate of Education to oversee the development and administration of education in Uganda (Education Policy Review Commission Report, 1989). An inquiry conducted in the same year highlighted the achievements of the missionary-led education systems but also pointed out the lack of coordination and the need for a more structured approach to education. The recommendations from this inquiry were endorsed by the Advisory Committee on Native Education in Tropical Africa and formed the basis for a five-year expansion plan led by Sir William Gowers, the Governor of Uganda at the time (Beck, 1966; Motani, 1979). This plan included significant investments in educational infrastructure, including the recommendation by the De La Warr Commission to remodel Makerere University, established in 1922, into a regional institution serving Uganda, Kenya, and Tanganyika (Hussey, 1937; Motani, 1979). Makerere University would go on to play a central role in higher education in East Africa, becoming a hub for training professionals who would lead the region's post-independence governments.

Despite these developments, the education system in Uganda remained largely fragmented, with missionary and government-run schools continuing to operate on parallel tracks. The post-World War II period brought increased pressure for greater flexibility in curricula and more significant government control over the education system (Beck, 1966). The colonial administration responded by initiating various commissions aimed at improving education in Uganda. Notably, the Binns Commission of 1951 (UK Parliament, 1957) and the Bernard de Bunsen Commission of 1953 (Evans, 1994; Education Policy Review Commission Report, 1989) which emphasised the need for education to support economic development by training the necessary manpower (Evans, 1994). However, these efforts were primarily aligned with British interests and the goals of the religious missions that controlled most of the secondary schools in Uganda (UK Parliament, 1957; Evans, 1994). This duality in educational objectives persisted until Uganda gained independence in 1962.

ii. Education Landscape Between Independence and 1986

Mirrored on the colonial system of education (7+4+2), Uganda emerged from British rule in 1962 with a relatively advanced education system, especially when compared to

neighbouring countries like Kenya and Tanzania (Millar, 2008; Paige, 2000). Makerere University, located in Kampala, was the only university in the region at the time, highlighting Uganda's educational advantage (World Bank, 1990).

However, it quickly became evident that the colonial education system was inadequate for the newly independent nation's needs. The government of Uganda sought to reshape the education system to align with national interests and aspirations. Shortly after independence, the Ugandan government established the Castle Commission, chaired by E.B. Castle, to assess and strengthen the country's education system. The Castle Commission's recommendations signalled a shift towards greater autonomy and self-determination in shaping Uganda's education policies. The commission advocated for universal primary education and the development of a skilled workforce to meet the country's growing economic needs (World Bank, 1988). These recommendations emphasised the importance of livelihood preparation, literacy, critical thinking, and skills development as essential components of the education system (Ward et al., 2006).

However, the post-independence period was marked by significant challenges. Uganda experienced political instability, economic recession, and social upheaval, particularly during the 1970s (World Bank, 1990; Mwakikagile, 2012; Reid, 2017). The 1971 coup d'état led by General Idi Amin, which overthrew the government of President Dr. Apollo Milton Obote, plunged the country into turmoil. Amin's regime was characterised by economic mismanagement, inflation, infrastructure decay, and a massive exodus of skilled manpower, including the expulsion of entrepreneurial Ugandan Indians (Patel, 1972; Lofchie, 1972; World Bank, 1990; World Bank, 1990). These developments severely impacted the education sector, leading to a decline in educational quality and access (Odaet, 1990; Klasen and Lawson, 2007; Wali et al., 2012).

Following the overthrow of Amin by Dr. Obote (II) in 1979, Uganda embarked on a Recovery Programme (1982-84) to reconstruct the education system and address the damage inflicted during the previous decade (World Bank, 1990). The programme emphasised teacher education to address shortages, decentralisation of academic administration to reduce bureaucracy, curriculum diversification, and the promotion of self-help initiatives in schools. However, these efforts were disrupted by the protracted guerrilla warfare that

eventually ousted Dr. Obote in 1986, further delaying the recovery and reform of the education sector (World Bank, 1990).

iii. Structural Adjustments and Education Policy Interventions (1986-Present)

The ascent of President Yoweri Kaguta Museveni in 1986 marked a pivotal moment in Uganda's history, with significant implications for the education sector. Museveni's government aimed to revamp the education system as part of a broader socio-economic development agenda, aligning it with the government's 10-point programme, which included the transformation of Uganda from a subsistence economy to a commercial, self-sustaining economy (New Vision, 2008; Jorgensen, 2023).

However, before embarking on educational reforms, the government had to address the country's devastated economy, which had been severely affected by years of war and political instability. As a condition for funding from international financial institutions such as the IMF and World Bank, Uganda had to implement the Structural Adjustment Programme (SAP) in the late 1980s and early 1990s (Dijkstra, JK Van Dongem, 2001). SAP emphasised cost recovery measures, reduced public spending, and a huge privatisation drive (Heidhues and Obare, 2011). While these policies were intended to stabilise the economy, they had adverse effects on the education sector, leading to reduced access to quality education and increased inequality (Kadzamira and Rose, 2005; Mamdani, 1990; World Bank, 1989).

One of the most significant consequences of SAP was the reduction in government expenditure on education, which, coupled with privatisation, resulted in high levels of unemployment and widespread poverty. Many families could no longer afford even basic primary education, leading to a decline in school enrolment rates (Dijkstra and Donge, 2001). In response to these challenges, the Ugandan government introduced the Universal Primary Education (UPE) policy in 1997 as part of its commitment to the Education for All (EFA) initiative (Miles and Singal, 2010). UPE was a groundbreaking policy in Sub-Saharan Africa, as it removed tuition fees and made primary education accessible to all children, particularly those from disadvantaged backgrounds (Ninshimura, et al., 2008; Grogan, 2009; Moussa and Omoeva, 2020). This led to a significant increase in primary school enrolment in Uganda, with millions of children gaining access to education for the first time (Sekiwu, et

al., 2020). However, the rapid expansion of enrolment placed immense pressure on the education system, leading to overcrowded classrooms, inadequate infrastructure, and a shortage of trained teachers (Grogan, 1997; Sekiwu et al., 2020). Despite these challenges, UPE represented a critical step towards achieving universal education and improving literacy rates in Uganda.

iv. Integration of Entrepreneurship Education in Uganda

Uganda's journey with EE is more recent and reflects the country's broader socio-political and economic transitions. From colonial education systems focused on administrative roles to post-independence efforts aimed at economic self-sufficiency and development, the formal integration of EE within Uganda's higher education framework can be traced back to the mid-1980s when John Bikangaga, the Chairman of the Makerere University Council, raised concerns about the increasing trend of graduate unemployment and questioned which educational fields should be prioritised to address these challenges (Bikangaga, 1986).

"Already, the majority of our graduates who leave this University are jobless. I am sorry to say that we have little or no knowledge of their whereabouts or what they are doing to earn their living. Now, if our present annual turn-over of graduates cannot be absorbed and we decide to expand University education, in which fields should this be done?" (Bikangaga, 1986).

Bikangaga's concerns highlighted the need for educational reform to equip graduates with the skills and mindset necessary for creating job opportunities rather than solely seeking employment. In response to these concerns, the Ugandan government at the time took proactive steps to assess the university education system and propose strategic recommendations. The government convened a Visitation Committee to conduct a comprehensive assessment of the entire university education system. This marked the beginning of efforts to integrate EE into the curriculum as a proactive measure to address unemployment challenges. The aim was to produce graduates who were not only academically qualified but also equipped with the entrepreneurial skills needed to create jobs and contribute to economic development.

Since then, the integration of EE in Uganda's education system has been slow and gradual, with various initiatives and programmes introduced over the years. Despite the challenges posed by a lack of resources and infrastructure, EE has gained traction in schools and

tertiary institutions across the country. The focus has been on promoting creativity, innovation, and business acumen among students, with the ultimate goal of reducing youth unemployment and fostering economic growth. In recent years, the integration of EE into formal education has been part of a broader strategy to address high unemployment rates, stimulate economic growth, and foster innovation in a rapidly changing socio-economic environment (Nangoli et al., 2023; Ministry of Education and Sports, 2022).

The economics' arguments aside, EE initiatives have been gradually incorporated into schools and tertiary institutions to foster an entrepreneurial mindset and equip students with relevant skills for self-employment. These initiatives have been particularly prominent in private schools, where there is a growing recognition of the need to adapt the curriculum to meet the evolving demands of the labour market and the entrepreneurship landscape in Uganda (Kirunda and Iga, 2017). However, compared to the UK, these efforts are still in their formative stages, characterised by uneven implementation, resource constraints, and varying levels of institutional support. The country also faces acute skill gaps, inadequate teacher training, and inadequate educational infrastructure (Nangoli et al., 2023; United Nations Development Programme, 2023), highlighting the need for a more integrated and comprehensive approach to EE (Uganda Bureau of Statistics, 2024). This nascent stage presents an invaluable opportunity to study the development, challenges, and effectiveness of Uganda's EE initiatives in comparison to the more mature and structured systems in the UK.

Summary Of the Research Context Chapter

This chapter has established the socio-economic, cultural, and structural contexts that frame the entrepreneurial landscapes of the UK and Uganda. These historical evolutions and the educational frameworks, together with the Introduction and Literature Review chapters, laid the groundwork for the next chapter – Methodology – which outlines the research design, data collection methods, and analytical approaches employed to investigate how these contextual factors mediate the relationship between entrepreneurship ecosystems and the effectiveness of EE pedagogy.

4. METHODOLOGY

This chapter outlines the research methodology employed to investigate entrepreneurship education (EE) in different ecosystems, focusing on the UK and Uganda. It provides a systematic account of the research design, philosophical underpinnings, data collection methods, sampling techniques, and analytical approaches used to explore how EE is shaped by different entrepreneurship ecosystems factors. The study is grounded in critical realism, which allows for an integrated examination of both objective structures (such as EE curricula and policies) and subjective experiences (such as student and lecturer perspectives). This philosophical stance informs the study's epistemological and methodological choices, supporting a mixed-methods approach that combines quantitative surveys and qualitative focus groups. By employing thematic and content analysis, the research seeks to uncover both predetermined and emergent themes, ensuring a comprehensive understanding of EE practices across different contexts. The chapter also addresses key considerations related to validity, reliability, and ethical research practices, ensuring methodological rigor and coherence throughout the study.

4.1 RESEARCH PHILOSOPHY: CRITICAL REALISM

In research methodology, paradigms provide the foundation for how knowledge is generated, validated, and interpreted (Lincoln et al., 2011; Patton, 2002). This study is underpinned by critical realism, a philosophical approach that seeks to uncover the underlying structures and mechanisms that shape social phenomena. Initially developed by Roy Bhaskar (1975), critical realism argues that reality exists independently of human perception but can only be understood through social interpretation. This perspective is particularly suited for exploring entrepreneurship education (EE) in different national ecosystems, as it allows for an examination of both objective structures (such as institutional frameworks, policies, and curricula) and subjective experiences (such as student and lecturer perceptions of EE effectiveness).

A. Ontology: Critical Realism

Ontology refers to the nature of reality and being (Bryman, 2016). In the context of this study, critical realism provides the ontological foundation by recognising that EE, as a social phenomenon, consists of both observable (empirical) and unobservable (structural) dimensions. Unlike positivism, which assumes an objective reality that can be directly measured, or social constructionism, which posits that reality is entirely socially constructed, critical realism asserts that reality exists independently of human perception but is mediated through social and cultural contexts (Crotty, 1998; Bhaskar, 2008; Guba and Lincoln, 2017).

This ontological stance was particularly relevant for studying EE ecosystems across different countries. While entrepreneurship education programmes, policies, and institutions (macro-level structures) exist independently, their effectiveness, interpretation, and impact (micro-level experiences) are shaped by the local economic, social, and cultural environments in which they operate. By acknowledging both structural constraints and human agency, critical realism provided a nuanced and comprehensive lens through which to explore EE in Uganda and the UK. For instance, although entrepreneurial ecosystems in both countries contain similar formal structures – such as business incubators, funding schemes, and university courses – their effectiveness is contingent on the socio-economic environment and lived experiences of students and lecturers. A critical realist approach, therefore, enabled this study to explore how underlying mechanisms (e.g., institutional support, cultural attitudes toward entrepreneurship) shape the effectiveness of EE beyond what is immediately observable.

B. Epistemology: A Contextual and Multi-Level Understanding of Knowledge

Epistemology concerns the nature and scope of knowledge – how we come to know what we know (Nonaka and Takeuchi, 1995; Klein et al., 2017). Traditionally, knowledge is categorised into four main types: intuitive knowledge, which arises from human intuition and instinct (Markus, 2001; Goldman, 2007; Chudnoff, 2013); authoritarian knowledge, derived from authoritative sources like textbooks, research articles, or expert opinions; logical knowledge, which is produced through logical reasoning and thus allows for the

generation of new insights (Field, 1984); and empirical knowledge, which is grounded in verifiable facts that can be objectively demonstrated (Goldman, 1988).

Under critical realism, knowledge is seen as fallible and theory-laden (Bhaskar, 2008). While objective reality exists, our understanding of it is always mediated through multiple mediums such as language, culture, and historical context (Archer, 1995; Haridimos and Vladimirov, 2001). Additionally, a subjective epistemological view holds that individuals develop knowledge over time to the point where it becomes intertwined with their own experiences (Heidegger, 1962; Guba and Lincoln, 1989). This does not imply researcher bias but rather the alignment of the researcher's knowledge and experiences with the subject of the research (Charmaz, 2006). In the context of this study, the researcher's prior knowledge and experiences in entrepreneurship education in both the UK and Uganda partly informed and enriched the research process. Moreover, entrepreneurship education in this research was studied through both empirical observation (quantitative survey data) and interpretive inquiry (qualitative focus groups and thematic analysis). This epistemological position was particularly advantageous as it allowed for:

- A layered analysis of EE: By integrating quantitative survey data (capturing broad patterns) with qualitative insights from lecturers and students (capturing individual and institutional perspectives), this research moves beyond descriptive accounts to uncover deeper causal mechanisms.
- A context-sensitive approach: Knowledge is understood to be context-dependent, meaning that EE practices and policies cannot be assessed in isolation but must be examined within their specific institutional, economic, and cultural settings.
- A balanced methodological approach: Unlike pure positivism, which relies solely on measurable variables, or pure interpretivism, which may overlook macro-level structures, critical realism allows for methodological pluralism – thereby leveraging both quantitative and qualitative techniques to construct a comprehensive understanding of EE dynamics.

This study recognises that what is perceived as "effective" EE is shaped by underlying institutional and structural factors, as well as individual agency. For instance, a university

might formally offer entrepreneurship courses and incubators, but their effectiveness might depend on how students engage with them, the pedagogical approaches used, and the broader economic context (e.g., availability of funding and startup opportunities). By adopting a critical realist epistemology, this research was able to go beyond surface-level descriptions to explore the mechanisms that drive these different outcomes.

Summary of the Critical Realist Approach

This research adopts critical realism as its ontological foundation, recognising that entrepreneurship education is shaped by both macro-structural forces and micro-level experiences. It rejects the extremes of positivism and constructivism, instead embracing an epistemological approach that values both empirical observation and interpretative depth. By anchoring this study in critical realism, the research ensures a consistent philosophical and methodological framework; enables a comprehensive examination of EE across different ecosystems and provides theoretical depth by uncovering the causal mechanisms driving EE outcomes. This approach ensured that findings are both theoretically rigorous and practically relevant, offering insights into how EE policies, pedagogies, and institutional frameworks interact with local entrepreneurial ecosystems to shape student experiences and outcomes.

4.2 RESEARCH METHODOLOGY

Research is a systematic and structured approach to investigating specific phenomena, aimed at generating new knowledge or refining existing theories (Kothari, 2004, pp. 1-24). This section outlines the methodological approach employed in this study, detailing the research design, data collection methods, and the analytical framework that guided the study. Anchored in critical realism, this study used a comparative case study approach to examine two institutions – Birmingham City University (BCU) in the UK and Makerere University Business School (MUBS) in Uganda – to explore how entrepreneurship ecosystem dynamics influence EE methodologies and skills acquisition. While a quantitative survey provided foundational insights, the study primarily relied on qualitative focus group interviews with students and lecturers, offering a multi-layered, in-depth analysis of how institutional and external ecosystem factors mediate EE outcomes.

4.2.1 PHASED RESEARCH DESIGN

This research was conducted in two distinct phases, allowing for a systematic and sequential exploration of entrepreneurship skills, teaching methods, and the broader ecosystem factors influencing EE:

1. Phase One: Pre-Study (Quantitative Surveys)

This phase involved the administration of structured online surveys to students and lecturers at BCU and MUBS. The surveys contained a mixture of closed and open-ended questions (Appendix 9.13 and 9.14) and were designed to establish baseline data on students' self-assessed entrepreneurial competencies, lecturers' perceptions of student abilities, and the perceived effectiveness of various EE methods. Survey data were analysed using descriptive and inferential statistics, allowing for the identification of trends, correlations, and statistically significant relationships between key variables. The results of this phase provided empirical evidence that shaped the direction of Phase Two. The full set of these results is available in Appendix 9.4.

2. Phase Two: Qualitative Focus Groups

Informed by the pre-study findings, this phase employed focus group discussions with students and lecturers at both institutions. These sessions provided a deeper exploration of perceptions, experiences, and institutional contexts, allowing for rich, contextually grounded insights that could not have been captured through surveys alone. The qualitative data were analysed through Thematic Analysis, following Braun and Clarke's (2006; 2019) framework, to identify key themes and patterns across responses. Structuring the research in this way ensured that the initial quantitative phase provided a foundation for the qualitative exploration, allowing for both breadth and depth in understanding EE within the two institutional contexts.

Justification For a Phased Research Design

Foremost, the quantitative sample size was not sufficiently large to allow for a robust exploration of all research domains. While it provided valuable preliminary insights, it was primarily used for exploratory purposes, guiding the subsequent qualitative phase. A mixed-

methods approach was, therefore, deemed necessary to balance the generalisability of quantitative findings with the depth and contextual richness of qualitative inquiry (Creswell and Creswell, 2018).

Additionally, given that quantitative research alone often lacks the capacity to capture nuanced educational experiences, and qualitative research may not always allow for broad generalisation, combining these two approaches mitigated their respective limitations and enhanced the overall rigour of the study (Greene, 1989; Johnson and Onwuegbuzie, 2004). In this case, the focus groups allowed for deeper engagement, enabling participants to elaborate on their experiences and perspectives in ways that structured survey responses could not fully capture.

Explanatory Sequential Design

The research followed an Explanatory Sequential Design, which first collected and analysed quantitative data through surveys administered to students and lecturers from BCU and MUBS, and then followed up with qualitative research to further explain and contextualise the statistical findings (Creswell and Plano Clark, 2011). This approach ensured a systematic integration of quantitative and qualitative data, enhancing the robustness and validity of the study's conclusions (Jick, 1979; Heale and Forbes, 2013). This sequential process allowed for:

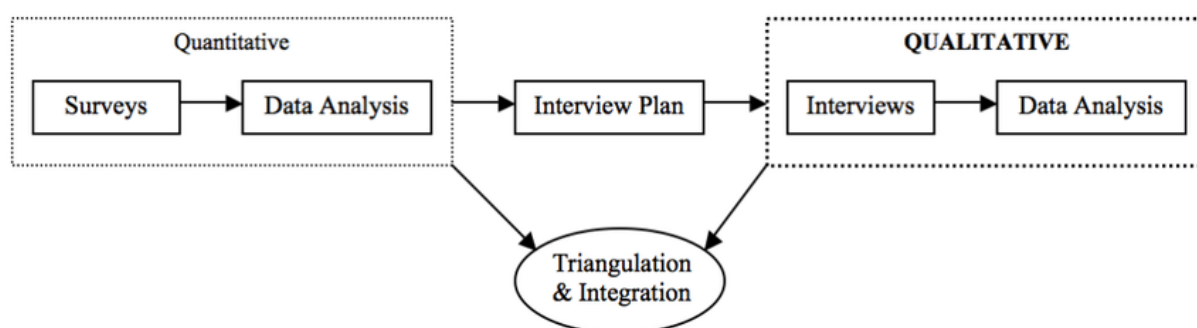
- i. Initial identification of key variables and trends through survey analysis,
- ii. Refinement of focus group questions based on preliminary statistical findings,
- iii. Deeper exploration of the reasons behind the observed patterns, ensuring that the lived experiences of students and lecturers were not overshadowed by numerical trends.

Triangulation for Validity and Reliability

To enhance validity and reliability, the research employed triangulation, a methodological strategy that uses multiple data sources or methods to cross-validate findings (Teddlie and Tashakkori, 2003; Denzin, 2017). Two key forms of triangulation were applied:

- a) Method Triangulation: Multiple data collection methods were used – surveys and focus groups – to validate findings and reduce the risk of methodological bias (Polit and Beck, 2012).
- b) Data Source Triangulation: Data were collected from both students and lecturers, and from two universities in different national and institutional contexts (BCU and MUBS). Additionally, within the student sample, first-year and final-year students were included, offering insights from individuals at different stages of their academic journey.

Figure 39: Data Source Triangulation (Creswell, 2017).



This triangulated approach strengthened the credibility of the research findings and ensured that conclusions drawn were not dependent on a single data source or analytical method (Lincoln and Guba, 1985; Creswell, 2009).

4.2.2 METHODOLOGICAL STRATEGY

A methodological strategy serves as the blueprint for conducting research, ensuring that the study is structured, rigorous, and aligned with its objectives (Leedy and Ormrod, 2015). This section outlines the systematic approach adopted in this study, detailing the research design, data collection methods, and analytical techniques employed. The selection of specific methodological strategies was driven by the research objectives and the complex nature of the phenomenon under investigation. Given the need for both breadth and depth in understanding entrepreneurship education (EE) across different contexts, this study adopted a comparative case study approach, complemented by a mixed-methods design.

COMPARATIVE CASE STUDIES

A comparative case study involves the in-depth examination of multiple cases to uncover similarities, differences, and broader patterns across contexts (Yin, 2009; 2018). In this study, a comparative case study approach was employed to explore entrepreneurship education in two distinct national contexts – the UK and Uganda. By studying two different institutional and socio-economic environments, this approach enabled a rich, contextualised understanding of how entrepreneurship skills are taught, developed, and influenced by external ecosystems.

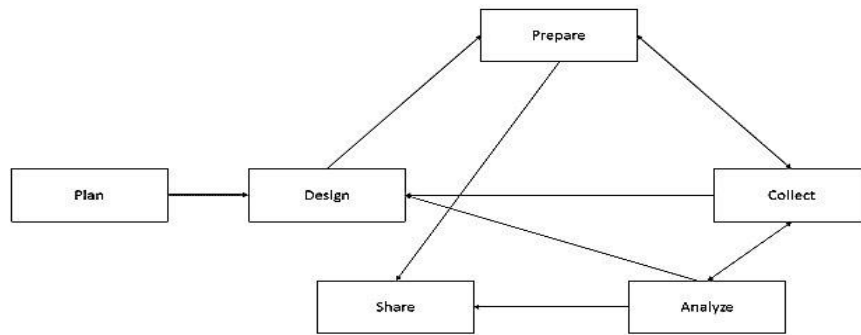
The case study method was particularly valuable for capturing the complexities and contextual nuances that shape EE in different regions. It allowed for an exploration of the interplay between pedagogy, skills development, and environmental factors, which would have been difficult to achieve through quantitative approaches alone. Furthermore, using a comparative design enhanced the robustness of findings by demonstrating how certain EE principles transcend national boundaries, while others remain context-dependent (Eisenhardt, 1989; Stake, 2006; Yin, 2018).

Critics of case study research argue that it lacks generalisability, often dismissing it as anecdotal or subjective (Flyvbjerg, 2006; Yin, 2014). However, when applied rigorously, case studies provide deep, empirically grounded insights that contribute to theory-building and policy development (Krusenvik, 2016; Omeihe and Harrison, 2024), especially where there exists an interplay between various factors within specific settings (Zainal, 2007). This research addressed concerns about case study limitations by selecting two diverse cases – a UK university (BCU) and a Ugandan university (MUBS) – to identify commonalities and divergences in EE models. By incorporating multiple perspectives from both students and lecturers, the study strengthened the validity of its findings, ensuring a more holistic and credible analysis of EE.

Case Study Design

A well-structured case study design is essential for maintaining rigour and credibility (Yin, 2014). While case study research is inherently flexible (Figure 40), requiring iterative data collection and analysis, this study followed a structured four-stage approach to ensure methodological consistency and analytical depth (Table 12).

Figure 40: Phases of Case Study Research. Adopted from Yin (2014)



Below are the four stages of the case study design that were followed by this research.

Table 13: Stages of Case Study Design Followed in this Research

| Stage | Details | Section / Chapter |
|--|--|-----------------------------|
| 1. Defining Research Questions and Objectives | The study began by clarifying its purpose and formulating research questions that guided the investigation (Baxter and Jack, 2008). | Section 1.3 |
| 2. Selecting the Cases | Given the comparative nature of this study, cases were carefully selected to provide rich, contextually diverse data (Yin, 2018). Institutions from the UK (BCU) and Uganda (MUBS) were chosen for their contrasting educational and entrepreneurial ecosystems. | Section 3, 4.2.2.1, 4.2.2.2 |
| 3. Data Collection | Data were gathered using multiple sources to ensure comprehensive coverage of the research domains (Flyvbjerg, 2006). Surveys (pre-study) and focus groups were conducted with students and lecturers from both institutions. | Section 4.3 |
| 4. Data Processing and Analysis | Data were systematically organised and analysed using a thematic analysis approach for qualitative data (Miles et al., 2014) and statistical analysis for | Section 4.4 |

| | | |
|--|---|---------------------|
| | survey responses. Findings were then synthesised to draw meaningful conclusions. | |
| 5. Discussion, Conclusions, and Recommendations | The final stage involved integrating findings, discussing their implications, and offering recommendations for policy and practice (Yin, 2018). | Chapters 5, 6 and 7 |

4.2.2.1 University Selection Criteria

The selection of the two universities for this study was informed by the research objectives, the rationale for choosing the two countries (as discussed in Chapter 3), and the researcher's familiarity with both contexts. This section provides a comparative overview of the historical background, institutional development, and key characteristics of both universities. Additionally, it outlines the significance of MUBS as a contextual case study, positioned against BCU, to explore entrepreneurship education within two distinct educational and socio-economic environments.

A. WHY BIRMINGHAM CITY UNIVERSITY (BCU)

Birmingham City University (BCU), located in Birmingham, England's second-largest city (Centre for Cities, 2023), has a rich history rooted in the merger of several institutions (Figure 41).

Figure 41: BCU's previous names and predecessor Institutions that have since merged into the University.

| | | |
|---|---|---|
| <ul style="list-style-type: none"> • University of Central England in Birmingham • Birmingham Polytechnic • Birmingham College of Art • Birmingham School of Music (now Birmingham Conservatoire) • Birmingham College of Commerce | <ul style="list-style-type: none"> • South Birmingham Technical College • North Birmingham Technical College • Anstey College of Physical Education • Bordesley College of Education • City of Birmingham College of Education | <ul style="list-style-type: none"> • Bournville College of Art • Birmingham and Solihull College of Nursing and Midwifery • West Midlands School of Radiography • Defence School of Health Care Studies • Birmingham School of Acting. |
|---|---|---|

It traces its origins to the Birmingham College of Art, established in 1843, and the Birmingham School of Music, founded in 1859. The university's business school originated from the Birmingham College of Commerce, established in 1957. In 1971, these colleges

were unified under the name City of Birmingham Polytechnic, marking a significant milestone in the institution's development. The Polytechnic gained university status in 1992, becoming the University of Central England (UCE), which further expanded its academic offerings, particularly in business-related courses. In 2007, UCE was rebranded as Birmingham City University (BCU, 2023).

Since then, BCU has grown significantly, particularly its business school, which has become known for its strong emphasis on applied learning, industry collaboration, graduate employability and the attainment gap. Today, BCU is recognised as one of the top universities in the UK, with a vibrant presence across multiple campuses in Birmingham, contributing to the city's dynamic entrepreneurial ecosystem (BCU, 2023). With approximately 30,000 students from over 100 countries, BCU offers a diverse and inclusive learning environment (BCU, 2024; HESA, 2022). In particular, the Business School thrives within Birmingham's vibrant entrepreneurial ecosystem - home to numerous businesses, startups, and innovation hubs (Birmingham City Council, 2024; Atlas of Birmingham, 2024).

More recently, (BCU) has articulated an ambitious vision through its "*Strategy 2030: Rooted in Birmingham, Reaching Beyond*" (BCU, 2040) aiming to establish itself as an exemplar anchor institution. Central to this strategy is the commitment to "*equip and empower tomorrow's workforce with a personalised, collaborative education focused on innovation, inclusion, and industry excellence.*" (BCU, 2040). This strategic emphasis on innovative pedagogy and community engagement positions BCU as an ideal context for researching entrepreneurship education and the interplay between educational ecosystems and pedagogical practices. As well as its diverse student body, and a learning environment that integrates practical skills with industry collaboration, BCU provides a fertile ground for examining how educational strategies can cultivate entrepreneurial competencies and drive regional economic growth.

B. WHY MAKERERE UNIVERSITY BUSINESS SCHOOL (MUBS)

Following the decision to conduct a comparative study between the UK and Uganda, and the selection of Birmingham City University (BCU) as the UK institution, the next step was to identify a Ugandan university that would provide a meaningful benchmark against BCU. The

selection process involved a systematic review of Ugandan universities offering entrepreneurship education (EE) to ensure alignment with the research objectives.

Initially, a comprehensive list of 64 registered universities, 10 degree-awarding institutions, and various tertiary colleges was compiled and evaluated (Appendix 9.11). From this, 10 institutions with strong entrepreneurship education programmes were shortlisted (Appendix 9.10). The selection criteria included academic reputation, research output in EE, and institutional commitment to entrepreneurship development. Further refinement led to four universities known for their contributions to entrepreneurship research. These institutions were contacted to facilitate access to participants. Of the four, only two universities responded positively:

- i. Makerere University Business School (MUBS)
- ii. Makerere University's College of Business and Management Studies (CoBAMS)

Despite their similar names, these are distinct institutions. A deeper comparative analysis revealed that MUBS was the most suitable choice due to its alignment with BCU in the following key areas:

a) Institutional Evolution and Structural Comparability

MUBS, originally founded in 1971 as the National College of Business Studies (NCBS), was a vocational institution providing business and technical education. In 1997, it merged with Makerere University, Uganda's oldest and most prestigious institution, to form MUBS, marking a shift towards higher education and research. However, in 2000, MUBS became an autonomous institution, specialising in business and entrepreneurship education (MUBS, 2024). This transition closely mirrors BCU's own evolution from a polytechnic to a university, reinforcing their comparability in terms of institutional history, mission, and trajectory. Both institutions share a strong emphasis on applied learning, industry engagement, and entrepreneurship education, making MUBS an ideal counterpart for this study.

b) Entrepreneurial Ecosystem and Industry Engagement

Located in Kampala, Uganda's economic hub, MUBS is deeply embedded within a dynamic entrepreneurial ecosystem. Uganda has been recognised as one of the most entrepreneurial

countries globally (Global Entrepreneurship Monitor [GEM], 2015), with a high rate of necessity-driven entrepreneurship. This contrasts with BCU's position within a more structured and resource-rich UK entrepreneurial environment, where entrepreneurship is often opportunity-driven. By examining MUBS's EE initiatives, including its focus on experiential learning and student venture creation, the study benefited from a rich comparative analysis – providing insights into how EE is shaped by different ecosystem constraints and opportunities.

c) Accessibility and Institutional Support

An additional factor in selecting MUBS was the ease of access to participants. The university demonstrated a willingness to engage with the study, facilitating access to students, lecturers, and institutional resources. This support was crucial for conducting both the pre-study (quantitative surveys) and qualitative focus groups, ensuring a robust data collection process.

4.2.2.2 Participant Selection Criteria

Sampling refers to the process of selecting a subset of individuals from a larger population to ensure that findings can be meaningfully interpreted and, where applicable, generalised (Leedy and Ormrod, 2022). The choice of sampling method is influenced by multiple factors, including the nature of the study population, resource availability, and the research objectives. After considering various sampling techniques, stratified random sampling was deemed the most appropriate for this research due to its ability to ensure representation across key subgroups within the study population. The justification for this choice is outlined below:

1. **Enhanced Representation:** Stratified random sampling ensures the inclusion of distinct participant groups within the population. In this study, the population was divided into two primary strata: students and lecturers. This approach enabled a balanced representation of both groups at BCU and MUBS, ensuring that findings reflected diverse perspectives within EE.
2. **Comprehensive Analysis:** Students and lecturers bring unique experiences and insights into EE. By sampling across these strata, the study facilitated a comparative

analysis, capturing both the student learning experience and the lecturer's pedagogical perspective. This enriched the findings by offering a more holistic understanding of entrepreneurship education across the two institutions.

3. **Contextual Relevance:** The study focused on business faculties at BCU and MUBS, ensuring that participants were directly engaged in EE. By specifically targeting students enrolled in entrepreneurship-related courses and lecturers teaching EE, the study maintained alignment with its research objectives and minimised irrelevant responses.
4. **Increased Precision:** Stratified sampling enhances the accuracy and reliability of research findings by reducing sampling bias and ensuring that comparisons between different groups are robust. By analysing responses within each stratum separately, the study increased the validity of its findings, making them more reflective of the respective student and lecturer groups.

Sampling Approach

The study examined entrepreneurship education (EE) in two different ecosystems, necessitating the selection of two sets of participants – students and lecturers – from each institution. This approach ensured a comparative analysis of the educational methods, experiences, and perceptions of EE at BCU and MUBS.

a) Students

Student participants were undergraduate business students enrolled in courses that incorporated entrepreneurship education elements. Prior to data collection, a course review was conducted at each institution to identify relevant modules from which participants could be selected.

Stratification by Year of Study: To provide a comparative perspective on student experiences at different stages of their degree, the study randomly selected students from:

- First-year undergraduate students
- Third-year undergraduate students

This approach allowed the study to capture a snapshot across the undergraduate trajectory, enabling comparisons between students at the beginning and end of their university

journey. Given the time constraints of the research, this stratification offered the closest possible alternative to a longitudinal study, as it enabled an exploration of how student perceptions evolved over time. By asking similar questions to both first year and third year students, the research identified nuanced differences in entrepreneurial mindsets, skills development, and the perceived effectiveness of EE interventions.

b) Lecturers

Lecturer participants were selected from among academic staff involved in teaching business and entrepreneurship-related courses at both institutions. This ensured that responses were drawn from individuals with direct experience in EE, rather than faculty members whose expertise lay outside entrepreneurship.

Rationale for Selection: Since lecturers play a pivotal role in shaping EE pedagogy, their inclusion allowed for an analysis of how teaching methods, institutional frameworks, and external factors influence entrepreneurship education. Moreover, insights from faculty members provided a critical counterbalance to student perspectives, thereby enriching the study's exploration of pedagogical approaches and ecosystem influences.

4.2.2.3 Sample Size Determination

Determining an appropriate sample size is a critical aspect of any research methodology, ensuring that the findings are robust, meaningful, and reflective of the broader population. However, sample size determination is not always straightforward, as it depends on multiple factors, including the research approach, population size, data collection methods, and the nature of the phenomenon under study (Kish, 1965; Cohen, 1988; Bartlett et al., 2001). For this study, a two-phase sequential approach was adopted, with a pre-study (quantitative surveys) followed by qualitative focus groups. As a result, sample size determination was tailored to the specific needs of each phase.

a) Sample Size for the Pre-Study (Quantitative Phase)

The pre-study comprised structured online surveys distributed to students and lecturers at BCU and MUBS. The goal of this phase was exploratory – to identify broad trends, perceptions, and patterns regarding entrepreneurship skills, education methods (EEMs), and

ecosystem influences. Unlike qualitative research, quantitative sample size calculations are often based on statistical power analysis, confidence intervals, and margin of error considerations (Creswell and Creswell, 2018). However, given the exploratory nature of this phase, the sample size was not designed for broad generalisability but rather to inform the qualitative phase.

The survey was open to all business students and lecturers within the participating institutions. Although the response rate varied, a total of 197 students and 26 lecturers participated (see Table 15 and Appendix 9.4 for detailed survey results).

b) Sample Size Determination for Focus Groups (Qualitative Phase)

In contrast to quantitative studies, there is no universally agreed-upon sample size for qualitative research (Vasileiou et al., 2018). The literature presents a wide range of recommendations, as summarised below (Table 14):

Table 14: Disparity in Sample Size Recommendations in Qualitative Research (Author's own compilation)

| Author | Sample Size Recommendation |
|-------------------------------------|---|
| Adler and Adler (2012) | Suggests a broad range of 12 to 60 interviews. |
| Bernard (2000) | Recommends around 36 participants. |
| Bertaux (1981) | Proposes at least 15 samples |
| Creswell (1998) | Recommends 20 to 30 for grounded theories, and between 5 to 25 participants for phenomenological studies. |
| Francis et al. (2010) | Suggests 10 interviews as a baseline. However, he suggests adding at least 3 more to ensure saturation. |
| Gerson and Horowitz (2002) | Recommends at least 60 interviews for solid conclusions, but no more than 150 to avoid excessive data. |
| Guest et al. (2006) | Suggests 6 to 12 participants for relatively homogenous populations. |
| Kuzel (1992) | Recommends 6 to 8 participants for homogenous samples. |
| Marshall (1996) | Suggests 13 to 15 participants as an adequate sample size. |
| Marshall et al. (2013) | Recommends 20 to 30 participants for grounded theory and 15 to 20 for single case studies. |
| Mason (2010) | Found a mean sample size of 31, based on an analysis of 560 PhD studies using qualitative methods. |
| Moorse (1994) | Suggests an ideal sample size range of 30 to 50 participants. |
| Safman and Sobal (2004) | Recommends a wide range from fewer than 10 to more than 100 interviews. |
| Saunders (2012) | Recommends 12 to 30 participants for heterogeneous populations, and between 4 and 12 participants for homogenous populations. |
| Saunders and Townsend (2016) | Identified a sample size range of 15 to 60 participants for organisational research, with a median of 32.5 based on 798 articles. |

c) Saturation and Iterative Data Collection Approach

These varying perspectives in Table 14 underline the flexibility in qualitative sample size determination, where the appropriate number of participants is often determined by the study's context, research objectives, and when thematic saturation is achieved (Omeihe, 2024). Given the absence of a universal guideline for qualitative sample sizes, this study prioritised thematic saturation – the point at which no new themes or insights emerge from additional data collection (Baker and Edwards, 2012). Saturation is widely recognised as a gold standard for qualitative research (Morse, 1995; Byrne, 2001), yet it remains challenging to define in precise numerical terms (Omeihe, 2020).

Instead of relying on hypothetical thresholds, this research adopted an iterative data collection approach, guided by the principle of "information redundancy" (Coyne, 1997). Data collection continued until the analysis no longer revealed novel patterns, ensuring that the sample was sufficient to answer the research questions comprehensively. To enhance the validity of findings, triangulation was employed – drawing data from multiple sources (students and lecturers), different research methods (surveys and focus groups), and both institutions (BCU and MUBS).

The sample size in each focus group was determined progressively, based on emerging insights from earlier discussions, a method supported by scholars such as Piaget (Piaget, 1970, p. 140). For instance, while initial focus groups were conducted separately for students and lecturers at each institution, an additional focus group was organised, bringing together students from both BCU and MUBS. The purpose of this combined focus group was to further test whether saturation had indeed been achieved and to allow for cross-institutional comparisons in a dynamic discussion setting. This approach enabled participants to reflect on their respective institutional contexts, providing deeper insights into shared and contrasting experiences. The additional discussion reaffirmed previous themes while offering a comparative perspective on EE across the two institutions. The final number of participants in the qualitative phase (focus groups) is summarised in Table 15 below:

Table 15: Final Sample Size

| DESCRIPTION | BCU | | | MUBS | | | TOTAL | |
|-------------|---------|----------|---------------|---------|----------|---------------|---------|----------|
| | Invited | Accepted | Response rate | Invited | Accepted | Response rate | Invited | Accepted |
| Students | 348 | 128 | 37% | 527 | 69 | 13% | 875 | 197 |
| Lecturers | 24 | 17 | 71% | 26 | 9 | 35% | 50 | 26 |

4.2.3 VALIDITY and RELIABILITY

Ensuring the validity and reliability of research is paramount in producing credible, trustworthy, and rigorous findings (Maxwell, 2013; Creswell and Creswell, 2018). This study adopted multiple strategies to enhance the robustness and integrity of its research design, ensuring that both data collection and analysis were methodologically sound and aligned with best practices in qualitative and mixed methods research (Lincoln and Guba, 1985; Morse, 2015). One of the key mechanisms for ensuring validity and reliability was the pilot study, which allowed for refinement of research instruments, participant recruitment strategies, and methodological frameworks.

A. PILOT STUDY

A pilot study is a small-scale version of the main study, conducted to test and refine research instruments, procedures, and feasibility before full-scale implementation (Creswell and Creswell, 2018; Yin, 2018). It helps identify potential methodological challenges, test data collection strategies, and enhance the clarity of research questions (Van Teijlingen and Hundley, 2001). This research conducted a pilot study at Makerere University Business School (MUBS) and the College of Business and Management Studies (CoBAMS) in Uganda, with the aim of evaluating the effectiveness of the research design across multiple dimensions. The pilot study for this research had several objectives:

- a) Assessing the appropriateness of research instruments – to determine if questions were clear, interpretable, and aligned with the study objectives.
- b) Evaluating recruitment feasibility to identify potential challenges in accessing participants across different institutions.
- c) Testing the mixed methods approach to determine how effectively quantitative surveys complemented qualitative focus groups.

- d) Identifying areas for refinement, mainly to improve clarity, streamline data collection, and eliminate unnecessary variables.

Initially, the pilot study sought to include students, lecturers, and external stakeholders from Uganda's entrepreneurship ecosystem, including representatives from local chambers of commerce. The rationale for involving ecosystem players stemmed from Vogel's (2013, p.9) assertion that "if we do not measure the effectiveness of the various components in an ecosystem as well as the ecosystems as a whole, we will not be able to improve existing programmes and put in place new and complementary resources." However, as detailed in the outcomes below, adjustments were made based on feasibility assessments.

KEY OUTCOMES OF THE PILOT STUDY

i. Mixed Methods Justification and Refinement

The pilot study validated the appropriateness of a mixed methods approach, confirming that both quantitative and qualitative data were necessary to comprehensively capture the complexities of entrepreneurship education (EE). It revealed that while quantitative surveys were effective in capturing broad patterns and measuring perceptions of EE methods, qualitative focus groups provided deeper insights into students' and lecturers' experiences, challenges, and institutional constraints. Thus, the pilot reinforced the need for an explanatory sequential design, where quantitative data from the pre-study informed the qualitative focus groups (Greene, 2007; Creswell and Creswell, 2018). This design ensured that the study balanced statistical generalisability with rich, context-specific interpretations (Tashakkori and Teddlie, 2010).

ii. Adoption of a Quantitative Pre-Study

Findings from the pilot underscored the necessity of conducting an exploratory quantitative pre-study using structured surveys. This phase was deemed critical for:

- Identifying preliminary trends related to students' entrepreneurial skills, pedagogical preferences, and ecosystem influences.
- Informing the qualitative phase by highlighting key themes that required deeper exploration in focus groups.

- Enhancing methodological precision by ensuring that qualitative discussions were grounded in empirically identified issues.

As a result, a survey-based pre-study was integrated into the final research design, and was conducted at both BCU (UK) and MUBS (Uganda), focusing on the following research domains:

- Entrepreneurial skill acquisition – measuring students' self-perceptions of their entrepreneurial competencies.
- Pedagogical effectiveness – evaluating students' and lecturers' experiences with different EE methods.
- Ecosystem impact – assessing how institutional and external environments influenced EE.

This comparative approach provided an empirical foundation for cross-contextual analysis, offering insights into differences between EE in the UK and Uganda. However, as highlighted in Chapter 4, the pre-study surveys were exploratory and not designed for statistical generalisation. While statistical power analysis is often used for sample size determination (Cohen, 1988; Faul et al., 2007), this study prioritised diversity of responses over strict numerical thresholds (Guest, Bunce and Johnson, 2006).

iii. **Key Refinements Post-Pilot Study**

The pilot also led to several methodological refinements, ensuring greater clarity and feasibility in the main study:

- **Recruitment Feasibility and Exclusion of CoBAMS:** Recruitment challenges at Makerere University's CoBAMS resulted in its exclusion from the study. Despite initial interest, logistical constraints and participant availability proved problematic. The study therefore focused solely on MUBS, which provided easier access to students and lecturers actively engaged in EE.
- **Adoption of the 7-Point Likert Scale:** As discussed in Chapter 4 the pilot tested both a 7-point and 10-point Likert scale. A 7-point scale was selected as it provided sufficient granularity while reducing cognitive load on participants (Krosnick and Presser, 2010). This choice enhanced response reliability by minimising participant confusion.

- **Elimination of the Intra-Curricular Variable:** Initially, the study sought to differentiate Curricular, Co-Curricular, Intra-Curricular, and Extra-Curricular EE methods. However, the pilot revealed significant confusion among respondents regarding intra-curricular activities. Many participants conflated intra-curricular with co-curricular activities, reducing clarity. Additionally, some participants highlighted that the variables were too many and likely to cause confusion, taking away from the focus of the study. Consequently, this variable was removed, ensuring more precise data collection.
- **Exclusion of Ecosystem Player Interviews:** The pilot also examined the feasibility of interviewing external stakeholders (e.g., business professionals, policymakers). However, recruitment proved difficult, as many professionals were unavailable for extended academic discussions. Additionally, lecturers indicated that ecosystem insights could be effectively captured within student and staff focus groups. Thus, ecosystem player interviews were removed from the main study to streamline the study without compromising its scope.

In a nutshell, the pilot study was instrumental in refining research instruments, helping to streamline data collection, and for validating the mixed methods approach. The quantitative pre-study provided essential empirical grounding, ensuring that qualitative focus groups explored relevant, data-driven themes. A comprehensive analysis of the pre-study results is presented in Appendix 9.2, with a summary of key findings included in Chapter 5.2 of the findings section. These results played a critical role in shaping subsequent research phases, ensuring that the study remained grounded in both empirical evidence and practical feasibility.

B. RELIABILITY TESTS

Quantitative Reliability Tests

i. Cronbach's Alpha:

Cronbach's Alpha was utilised to assess the internal consistency of the survey and questionnaire items. This test measures how well items in a group correlate and form a coherent scale (Cronbach, 1951). A Cronbach's alpha value above 0.7 is generally considered

acceptable, indicating that the items reliably measure the same underlying construct. Cronbach's alpha was applied in this study to verify the reliability of the constructs.

ii. Multicollinearity

Multicollinearity, which occurs when independent variables are highly correlated, was tested using Variance Inflation Factor (VIF) and tolerance levels. VIF values under 4 and tolerance levels above 0.25 are considered acceptable (O'Brien, 2007). In this research, VIF values ranged from 1.01 to 1.06, and tolerance levels were between 0.94 and 0.98, indicating no multicollinearity concerns. These values confirmed the integrity of the regression models used in the analysis.

Qualitative Reliability Tests

For the qualitative component, Guba and Lincoln (1980; 1994)'s evaluative criteria were employed to establish the trustworthiness of the research findings. This involved four key constructs:

- **Credibility:** Credibility refers to the level of confidence in the accuracy and truthfulness of the study's findings. This was established through extended interaction with the data, validation by participants (member checking) and the use of multiple sources or methods (triangulation) as already explained above (Guba, 1981; Guba and Lincoln, 1980; 1994). The research ensured the findings were an accurate reflection of participants' experiences and viewpoints by thoroughly analysing the data and confirming results with participants during focus groups. For example, while focus group interviews were conducted separately with BCU and MUBS students, a third combined focus group involving students from both institutions was held later to clarify findings that were unclear in the initial sessions.
- **Transferability:** Transferability refers to the extent to which the study's findings can be applied to other settings or contexts. To this end, an entire section on the research context is provided in chapter 1.3. Combined with the university selection criteria (3.4.1.2) and information about the participants' backgrounds (refer to chapter 4), the study enables others to assess whether the findings are relevant and applicable in similar situations.

- **Dependability:** Dependability highlights the consistency of the findings over time. Using SAS and AtlasTi, an audit trail was maintained and to a great extent shared in the findings chapter. The transparency in digitally documenting all stages of the research process, from data collection to analysis allows others to replicate the study or understand the rationale behind the methodological decisions.
- **Confirmability:** Confirmability assesses the extent to which the findings are shaped by the respondents rather than researcher bias. The research includes a dedicated reflections section (Chapter 8) to present the researcher's perspective. However, also by using triangulation, the study ensured that the findings were grounded in the data and not influenced by the researcher's preconceptions or biases.

4.3 DATA COLLECTION TECHNIQUES AND PROCEDURES

The research employed multiple data collection tools and techniques to gather reliable data. The primary data collection methods selected for this research were surveys and focus groups. These methods offered distinct advantages in capturing both quantitative and qualitative information, thereby providing valuable insights into the experiences, perspectives, and opinions of students and lecturers. This section outlines the detailed fieldwork planning and stages involved in the data collection process (Figure 42).

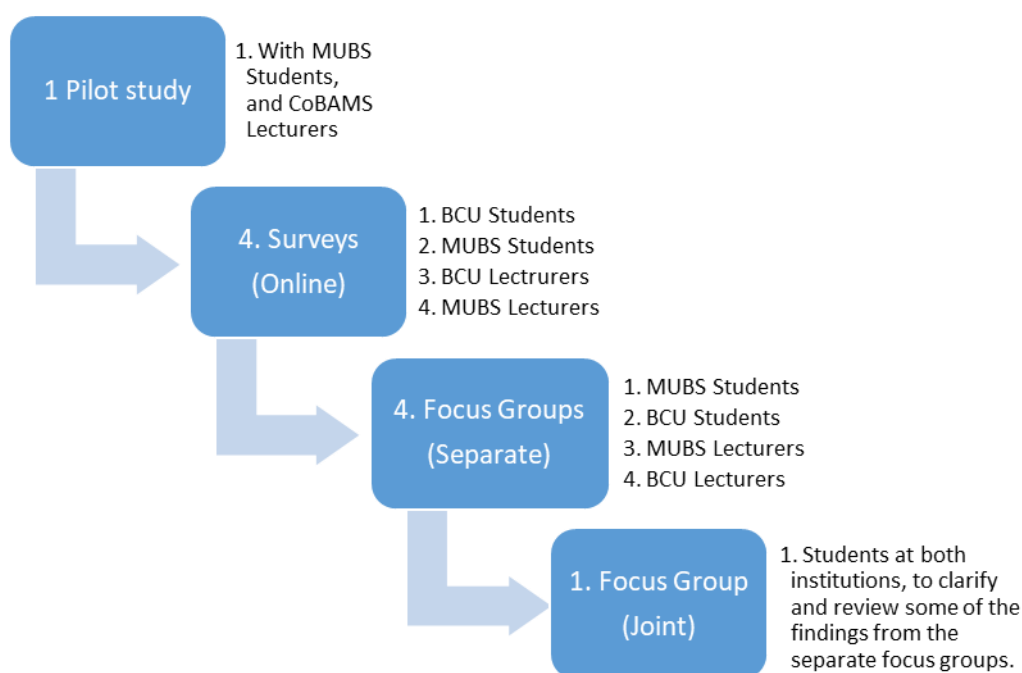
4.3.1 Fieldwork Planning and Data Collection Stages

- Designing the Study Questionnaires:** The initial step in fieldwork planning involved the development of questionnaires tailored towards capturing the required data from both students and lecturers (Appendices 9.13). The questionnaires were designed to cover information about the participants, as well as various aspects of EE and ecosystem dynamics - ensuring they were aligned with the research objectives.
- Ethics Approval:** An essential step was obtaining ethics approval from the ethics committee at BCU. This approval ensured that the research adhered to ethical standards, particularly in terms of confidentiality, consent, and the welfare of participants (Appendix 9.7).
- Identification of Universities:** A list of 64 registered universities in Uganda, 10-degree awarding institutions and various other tertiary colleges was compiled and

reviewed (Appendix 9.11). Focus was paid to those known for their research capabilities and strong business schools. From this list, the top 10 universities were identified based on rankings, research activity and relevance to the study (Appendix 9.10).

- iv. **Initial Contact and Selection:** Emails were sent to key contacts at the top 10 public universities to invite their participation in the study. Responses were received from only three universities, one of which Uganda Management Institute (UMI) was excluded due to its lack of comparability in standards. This process resulted in the selection of Makerere University Business School (MUBS) and the College of Business and Management Sciences (CoBAMS).
- v. **Pilot Study:** After securing institutional collaboration, a pilot study was conducted to test the feasibility and effectiveness of the data collection tools. This involved traveling to Uganda to administer the pilot surveys and focus groups. The pilot data was then analysed to refine the research instruments and methodologies.
- vi. **Survey Invitations:** Following the pilot study, survey invitations were sent out to students and lecturers at the participating institutions. This stage involved coordinating with the universities to ensure a high response rate and the representativeness of the sample.
- vii. **Focus Groups:** The final stage involved conducting focus groups. These focus groups were designed to gather in-depth qualitative data, providing rich insights into the participants' experiences and perspectives on EE. The first set involved a second trip to Uganda, while the second phase was at BCU. The BCU focus groups were completed at the height of the pandemic. In fact, the last focus group at BCU was conducted a day before the UK went into lockdown. There was then a final focus group of students from both institutions. This helped to establish commonalities and get clarity on any differences that might have emerged from the separate BCU and MUBS focus groups.

Figure 42: Iterative order in which the various data collection stages were handled.



4.3.2 Surveys

Surveys are a widely employed research tool for collecting data from a large number of respondents in a structured and efficient manner (Dillman, Smyth, and Christian, 2014). Their primary advantage lies in their ability to facilitate the collection of quantitative data, which can be systematically analysed using statistical techniques to identify patterns, trends, and relationships (Creswell and Creswell, 2018). In the context of this study, surveys – which were used in the pre-study - were particularly useful for measuring participant characteristics, as well as their perceptions of entrepreneurship education (EE) methods across the two institutions.

Given the large student and faculty populations at BCU and MUBS, conducting interviews with every potential respondent would have been impractical. Surveys, therefore, provided a cost-effective and time-efficient alternative that enabled the collection of a broad dataset from a diverse range of participants (Bryman, 2016). Additionally, surveys have been extensively used in educational research to assess the effectiveness of pedagogical methods and student experiences (Saunders, Lewis, and Thornhill, 2019).

For this study, online surveys were administered to both students and lecturers, using structured questionnaires with closed-ended questions and predetermined response

options (Appendices 9.13 and 9.14). Distributing the surveys electronically ensured standardisation of data collection, minimised the potential for interviewer bias, and allowed respondents to complete the surveys at their convenience, increasing response rates (De Leeuw, Hox, and Dillman, 2012).

Furthermore, the structured nature of the surveys enabled the research to gather quantifiable insights, which not only provided a broad overview of perceptions on EE but also served as the foundation for the subsequent qualitative phase of the study. The numerical data generated allowed for the identification of common trends and correlations, which were later explored in greater depth through focus group discussions. This sequential design ensured that the research findings were both comprehensive and methodologically robust (Cohen, Manion, and Morrison, 2011).

4.3.3 Data Capture

There are several tools used by researchers to collect survey data (User Interviews, 2023). These include MS Forms (Microsoft, 2023), Google Forms (Google, 2023), SurveyMonkey (Survey Monkey, 2023), Typeform (Typeform, 2023), Jotform (Jotform, 2023), Qualtrics (Qualtrics, 2023), to name but a few. Having explored a few survey tools, the research chose to administer the surveys for this research using Qualtrics, a widely used data collection tool, especially amongst researchers, and one recommended by BCU's Doctoral College at the time. It has several advantages including its versatility; a user-friendly interface; a wide range of question types which helps the researcher to tailor surveys to their specific research objectives; advanced features which are helpful for customisation; and secure data management and analysis capabilities (Sills et al., 2020). While one of its disadvantages is that it requires subscription fees, the researcher took advantage of the fact that BCU made it available for all its researchers, so the researcher and user did not have to pay for it.

4.3.4 Likert Scale Used in Survey Data Collection

Likert scales are widely used in measuring attitudes, perceptions, opinions, and preferences of respondents on a given issue (Likert, 1932). They allow individuals to express the degree to which they agree or disagree with a statement or item. Following the pilot study, this

research opted to use Likert scales in collecting survey data, with a particular preference for a range of 1-7 mainly for the following reasons;

- a) **Established Validity and Reliability:** Likert scales are robust in measuring subjective constructs. They have been extensively used and validated across various disciplines over the years with numerous studies vouching for the reliability and validity of Likert scale data, especially whilst collecting survey responses in diverse research contexts (Spector, 1992) such as this one.
- b) **Flexibility and Granularity:** The 1-7 Likert scale offers a wide range of response options, allowing respondents to express their opinions with greater precision and granularity. Compared to scales with fewer response options, the seven-point scale, provides more subtle distinctions between levels of agreement or disagreement (DeVellis, 2017) which increases granularity.
- c) **Standardisation, Comparability and Analysis:** The Likert scale provides a standardised measurement framework which ensures consistency in responses across participants from a variety of groups. Likert scales offer a straightforward interpretation and analysis process. Researchers can compute descriptive statistics, such as means and standard deviations, to summarize the distribution of responses (Pallant, 2016). These summary statistics aide in the interpretation of respondents' opinions or attitudes, and straightforward comparisons between the different groups of participants (Dawes, 2008).

4.3.5 Questionnaire design, techniques, and considerations

- a) **Purpose and Objectives:** This research used online survey questionnaires to collect data on participants' perceptions, experiences, and attitudes regarding entrepreneurship skills and EE at the respective university. As Babbie (2016) highlights, online questionnaires serve a variety of objectives. In the case of this research, the objectives included comparing the experiences and perspectives of students and lecturers in both countries, assessing the effectiveness of EE methods, understanding the participants' views on the relevance of the various

entrepreneurship teaching methods, and exploring the impact of the entrepreneurial ecosystem in different countries.

- b) **Design Considerations:** Designing online survey questionnaires requires careful consideration in order to ensure clarity of the questions, relevance, and validity of the data collected. The questions were aligned with the research objectives and formulated in a way that elicited accurate and meaningful responses. A combination of open-ended questions and closed-ended questions such as those using multiple-choice options of Likert scales, were used to capture both quantitative and qualitative data (Krosnick and Presser, 2010).
- c) **Questionnaire Structure:** The questionnaires were organised in a logical and coherent manner to facilitate flow and ease of completion for participants (Prensky, 2012). They began with an introduction that provided instructions for respondents, and crucially, the context of the research. The subsequent sections addressed specific research areas, focusing on different aspects of EE, teaching methods, and the impact of the entrepreneurial ecosystem.
- d) **Ethical Considerations:** Participants' informed consent was sought and obtained (Appendix 9.5). Clear information was provided on the purpose of the surveys, the voluntary nature of participation, including the right to opt out even after the survey has been concluded. Data protection measures, such two-factor access authentication, were taken to protect participants' data, privacy and confidentiality, ensuring their anonymity.
- e) **Data Safety and Security:** To ensure data safety and security, the questionnaires were administered through university email invitations, and other legitimate university communication channels such as Moodle. This was on top of using a university provided secure online survey platform (Qualtrics) that adhered to data protection regulations, employed encryption methods to safeguard data capture, transmission and storage in secure servers that had restricted access (Baker, 2013).

4.3.6 Focus Groups: Conduct and Justification for Using Them.

Focus groups are facilitated group discussions by the researcher, with a small number of participants to gather qualitative data about a particular research question (Krueger and Casey, 2014). They are widely used in qualitative research mainly because they are a cost effective and efficient data collection technique, allowing the ability to gather data from several participants simultaneously (Morgan, 1996; Krueger and Casey, 2015).

More importantly, focus groups provided flexibility and an opportunity to explore in-depth perspectives, experiences, and opinions of participants that might have otherwise been hard to capture using standard survey questions. Depending on participants' responses, or emerging themes, focus groups allow the researcher some flexibility to adapt the discussion or modify the questions during the session, which allows for a rich understanding of the social dynamics (Krueger and Casey, 2015). Particularly for this research, this provided an invaluable opportunity to explore the various and rather nuanced contextual influences related to entrepreneurship skills and EE practices at both institutions.

Focus groups also promote participant engagement and empowerment. They provide a platform for participants to express their perspectives and contribute to the research process. This interactive nature of focus groups also encourages participants to share and build upon each other's thoughts and ideas (Morgan, 1996). This proved very helpful in the conduct of this research and led to an opportunity for deeper exploration of the research topic, again, offering an opportunity that would have hitherto been unavailable in single case interviews (Krueger and Casey, 2015).

Perhaps more importantly, focus groups allow the researcher to observe non-verbal cues, group dynamics, and pick clues from interactions amongst the participants (Morgan, 1996). This provides additional insights beyond what could have been captured through surveys or individual interviews. Particularly for this research, this had an advantage of enhancing the contextual understanding of various EE practices at both BCU and MUBS and helped to concretise the understanding of shared beliefs, emerging themes, or even conflicting viewpoints (Krueger and Casey, 2015).

However, managing group dynamics during focus groups can present challenges, particularly when dealing with dominant voices that may overshadow other participants. During the student focus groups, some individuals tended to take want to control of discussions, potentially influencing the direction of the conversation. To address this, I used mainly active facilitation techniques, such as directly inviting quieter participants to share their views and using open-ended questions to broaden the conversation. Which helped maintain a more equitable environment.

Lastly, all the focus groups were recorded, which meat that the researcher did not have to spend time taking notes or transcribing during the interview. This allowed for the freedom to engage the participants freely, which eased their nerves and allowed for a good discussion to ensue.

4.3.7 Focus Group Interview Tools and Techniques Used

The role of a focus group facilitator cannot be underestimated, as their skills in conducting the proceedings have a direct impact the quality of information gathered. To help optimise the effectiveness of the focus groups, the following considerations were made by the researcher.

i. Interview space and set up

The interviewer ensured that the interviews were conducted in a relatively private space that had minimal distractions. This was important to ensure the confidentiality of participants and allow them to participate freely. To this end, all venues chosen were within the university premises, typically meeting rooms and classrooms. The researcher always arrived early and ensured that a comfortable and inclusive atmosphere was established at both institutions prior to the interview sessions. In Uganda, for instance, which was rather hot, the researcher sought for fans to be made available for the duration of the focus group, which made students feel comfortable. The lecturer's sessions at MUBS were conducted in a more rather comfortable senate boardroom which was air conditioned. Temperature issues were not experienced at BCU, whose facilities were "state of the art". The researcher also used this preparatory time to test the recording equipment. This preparation ensured that the sessions were and uninterrupted.

ii. Composition

The focus groups were composed of students and lecturers from both institutions. However, each focus group was run separately, as follows;

- i. Group 1: Students at BCU
- ii. Group 2: Students at MUBS
- iii. Group 3: Lecturers at BCU
- iv. Group 4: Lectures at MUBS
- v. Group 5: Final focus group of combined students from BCU and MUBS

The approach of running focus groups in the above groups was hugely advantageous, in that it encouraged participants to express their opinions and share experiences freely and amongst like participants. This generated rich insights and provided a deeper understanding of the nuances, challenges, and opportunities in EE that the research is unlikely to have obtained in different settings.

iii. Debriefing

At the beginning of the focus group sessions, the researcher started by introducing himself and briefing all participants about the purpose of the study. The researcher also explained key definitions such as the different types of entrepreneurship skills, the different teaching methods (curricular, co-curricular and extra-curricular methods), and the different aspects of the entrepreneurial ecosystem and how they are linked. The debrief also shared the ground rules, including the option for participants to leave at any time, if they wished to do so. This was very important to ensure that participants were going to be responding to topics that they were familiar with or had been briefed about.

iv. Accent and tone of voice

Whilst well spoken, the interviewer's first language was not English. To mitigate against any misunderstandings, the interviewer made an effort to speak at a steady pace, and endeavoured to maintain a professional and neutral tone of voice throughout the process. This was to ensure "non-threatening" atmosphere for participants, so that they could freely express their opinions.

v. Recording and Transcription

With the participants' consent, all focus group interviews were audio recorded to ensure accurate capture of the discussions and to provide a resource for clarifications if needed. These recordings were crucial for the data processing and analysis phase. After the sessions, the recordings were transcribed verbatim, ensuring a detailed and precise representation of the conversations. The transcripts were then imported into Atlast Ti, a qualitative analysis software to facilitate systematic coding. This process is discussed at length in chapter 3.6. The recordings allowed the researcher to revisit specific parts of the conversation to ensure that the coding accurately reflected the participants' intended meaning.

vi. Covid 19

The second set of focus groups, especially at BCU were held during the COVID-19 pandemic – literary on the day the UK went into lockdown. During this period, it was essential to adhere to the relevant health and safety guidelines, such as maintaining social distancing and the wearing of masks. To some extent, this meant that the researcher missed the opportunity to capture some nuanced aspects of the responses, mainly the body language due to the wearing of masks. The social distancing also meant that participants were kind of shouting so they could hear each other, as opposed to speaking freely.

The researcher also observed some kind of nervousness, compared to the previous groups, which, again could have been attributed to the Covid 19 health and safety guidelines and protocols at the time, as the general population was still trying to get to terms with the pandemic.

vii. Online Focus Group Interviews

Due to logistical challenges, particularly due to budget and visa challenges in getting both cohorts of students to be in the same place, the final joint focus group was delivered via online. One of the challenges was determining which was the most appropriate platform to use. After much online search and review, these three emerged as the most preferred by researchers in HEIs, namely Microsoft Teams, Zoom and Google Meet.

While both Google Meet and Zoom have robust security measures to protect user data, offer storage and a range of collaboration features that enhance user participation, Microsoft Teams proved more advantageous in that if technical issues arose during the interviews, participants were likely to find support from the university's standby IT departments (Google, 2024).

On the other hand, Microsoft Teams seamlessly integrates with other Microsoft applications and is widely used in organisations that rely on Microsoft products, such as the two universities where the research was taking place. Participants were therefore already familiar with it, which reduced potential for technical difficulties. Crucially MS team offers an automatic transcription facility that saved the researcher valuable time in transcribing (Microsoft, 2024). Given these advantages, MS Teams was chosen as the platform to conduct the focus group interviews.

4.3.8 Literature Review and Document Analysis

Prior to data collection, a comprehensive literature review was conducted to gather relevant secondary data. Most of this literature review is covered in Chapter 2 and involves a review of academic journal articles, textbooks, reports, and other scholarly sources related to entrepreneurship skills, EE and entrepreneurship ecosystems. However, further document analysis was carried out to examine documents related to EE at both BCU and MUBS. This included some official annual reports, module designs, university policies, and various other documents that provided insights into EE at each of the universities.

4.3.9 Ethical Considerations

a) Ethics Application and Approval

Prior to the research commencing, ethical considerations were addressed by obtaining approval from the research ethics committee at Birmingham City University (Appendix 9.7). The ethics application outlined the purpose of the study, research methods that would be used, potential risks, and benefits to participants, as well as the measures in place to protect their rights and privacy (Smith, 2015). The committee's approval ensured that the research was conducted in accordance with ethical guidelines and principles, which included

obtaining informed consent (Creswell, 2014; Bryman, 2016); voluntary participation and right to withdraw (Smith, 2015; Polit and Beck, 2017); confidentiality (Creswell, 2014; Bryman, 2016); data security (Smith, 2015); respecting cultural sensitivities (Creswell, 2014) and researcher integrity (Polit and Beck, 2017).

b) MUBS Approval:

The above ethical approval from BCU was considered and approved by Professor. Ernest Abaho, Head of Entrepreneurship at MUBS, in whose department the research was done (Appendix 9.7 B).

c) Information and Consent of participants:

All participants in the study provided informed consent prior to their involvement. They were fully briefed on the nature and objectives of the research, including the voluntary nature of their participation, the confidentiality measures in place to protect their identity and responses, and their right to withdraw from the study at any time without penalty. Participants were given ample opportunity to ask questions and seek clarification before providing their consent. As part of the online invitation, checkboxes were included in each form and only participant that affirming their understanding of the research procedures and their agreement to take part in the study were invited.

d) Data Protection

All data collected during this study were handled in strict compliance with General Data Protection Regulation (GDPR) (EU, 2016/679) and institutional ethical guidelines from BCU and MUBS. Participant anonymity was ensured through pseudonymisation, with all personally identifiable information removed before data analysis. Survey responses, focus group transcripts, and related research materials were securely stored on encrypted, password-protected servers, accessible only to the researcher and supervisory team.

Informed consent forms outlined participants' rights regarding data confidentiality, including their ability to withdraw from the study at any stage without providing a reason. In line with GDPR's data minimisation principle, only the necessary data required to fulfil the research objectives were collected, ensuring compliance with ethical and legal obligations.

Furthermore, all audio recordings were securely deleted after transcription and verification, with anonymised transcripts retained for a period specified by institutional research policies before being securely destroyed.

4.4 DATA PROCESSING AND ANALYSIS

Data analysis refers to the process of examining and interpreting collected data to derive meaningful insights and draw conclusions (Wickham, 2016). This research used a mixed methods approach in collecting data. The first stage used surveys while the second stage used focus groups. Each of these data require different data analysis methods and different tools and techniques are available to researcher in to enable them extract insights from the data. This section explains the process and justification of the techniques and tools used in the analysis of the data collected.

4.4.1 SURVEYS

A. DATA PROCESSING AND ANALYSIS

The data from online surveys was exported from Qualtrics into Excel (Microsoft, 2023), and then finally imported into Statistical Package called Statistical Analysis System (SAS) for further analysis. SAS is a popular and widely used software tool for quantitative data analysis (Field, 2018; SAS, 2024). Before settling for SAS, three other software were explored, namely R, SPSS and STATA all of which are widely used in research (Field, 2018). However, SAS was chosen for its user-friendly interface and its ability to handle complex statistical analyses. SAS was also chosen for its ability to analyse datasets with multiple variables, which the researcher struggled to achieve using MS Excel, another commonly used software in quantitative data analysis.

Crucially, SAS is good at running statistical tests and generating descriptive statistics such as means, frequencies, or standard deviations, and allows for the application of inferential statistics, which is essential for examining relationships between several variables (Field, 2018), of which this research had a few. Additionally, it enabled the application of inferential statistics to examine relationships between multiple variables, which was essential for this research given the diverse factors under investigation. The software was

particularly instrumental in identifying significant relationships between variables such as students, lecturers, universities, teaching methods, and the entrepreneurship ecosystem.

B. STATISTICAL SIGNIFICANCE:

In the analysis itself, both mean and median values of each variable and relationship were examined. While significant attention was paid to mean values, particularly those with a p-value below 0.05, equal emphasis was placed on medians due to the moderate size of the dataset. In fact, comparing medians provided a more nuanced understanding of the phenomena under investigation, especially considering potential outliers or skewed distributions (Field, 2018).

One of the key issues considered in the analysis was the question of statistical significance. The p-value, often referred to as the probability value, was the statistical measure used to determine the significance of observed differences or associations within the datasets. It is an industry standard way of quantifying the strength of the evidence against the null hypothesis – or that the observed difference or relationship is unlikely to have occurred by chance alone, assuming the null hypothesis is true (Field, 2013). A p-value of 0.05 or less is commonly used as a criterion to reject the null hypothesis and conclude that there is a meaningful effect or relationship in the data. This is what was adopted for this study.

However, it's important to note that the p-value alone does not provide information about the size or practical significance of the effect; rather, that it only indicates whether the effect is statistically significant or not (Fidler and Loftus, 2009). Indeed, there were many incidences where the p-value was ignored, especially where data had significant outliers. This is also why in such incidences, the median as opposed to Mean was relied upon.

4.4.2 FOCUS GROUPS

Data collected from both face-to-face and online focus groups was analysed using mainly two methods: Content Analysis and Systematic Thematic Analysis. Below is a detailed explanation of what these methodologies are, and how they were deployed.

4.4.2.1 Content Analysis

Definition and Purpose

Content analysis is a widely recognised research method used to systematically categorise, interpret, and analyse qualitative data in textual, visual, or audio formats (Miles and Huberman, 1994; Neuendorf, 2017). It enables researchers to identify patterns, themes, and relationships within data, making it a powerful tool for examining communication content in various disciplines, including sociology, psychology, education, marketing, and political science (Lindgren, 2020; Kyngäs, 2020). By offering a systematic, replicable, and rigorous approach, content analysis enhances the credibility of qualitative research and allows researchers to derive meaningful insights from large datasets (Winson-Geideman, 2018; Armat et al., 2018; Kibiswa, 2019; Kleinheksel, 2020).

a) Justification For Using Content Analysis

Objectivity and Rigour One of the biggest challenges in qualitative analysis is rigour. Content analysis is versatile and provides a systematic and replicable method for analysing qualitative data, thereby reducing the risk of bias in interpretation (Neuendorf, 2017).

Insightful By systematically deconstructing and examining textual data at multiple levels, content analysis allows for the identification of hidden patterns, themes, and relationships that might not be immediately apparent through other qualitative methods (Mayring, 2004; 2014). Its capability stems partly from the capacity to isolate and deconstruct paragraphs and sentences, thereby exposing concealed elements within the text, irrespective of their broader context. This meticulous and forensic-like approach ultimately yields valuable insights that might otherwise have remained obscured.

Efficiency Content analysis enables researchers to swiftly and effectively analyse extensive amounts of data, rendering it ideal for examining large datasets or multiple information sources (Krippendorff, 2018). This was especially advantageous considering the diverse parameters this research aimed to

assess, encompassing entrepreneurship skills, entrepreneurial methods, and the entrepreneurship ecosystem – especially as each component included additional aspects, such as the six domains of the entrepreneurship ecosystem, the three categories of EE, and the seven entrepreneurship skills.

b) Content Analysis Approach Adopted

This study integrated both quantitative and qualitative content analysis to achieve a comprehensive exploration of entrepreneurship education, as explained below:

- **Quantitative Content Analysis**
 - Used to assess the frequency and distribution of key terms related to EE and entrepreneurial ecosystems.
 - Helped establish patterns and trends across student and lecturer responses.
- **Qualitative Content Analysis**
 - Used to interpret the underlying meanings behind the identified trends.
 - Allowed for the identification of emerging themes and deeper insights into entrepreneurship education.

By combining these approaches, the study ensured a multi-layered analysis, where quantitative trends provided structure, while qualitative insights enriched the depth of interpretation (Neuendorf, 2017; Mayring, 2004).

c) Content Analysis Approach Used and Justification

Content analysis typically follows either a deductive or inductive coding approach. The Deductive Content Analysis approach typically uses predefined categories from existing theories or prior research (Hsieh and Shannon, 2005); follows a structured, top-down approach, ensuring consistency and comparability; and is suitable for testing or validating pre-existing frameworks. On the other hand, Inductive Content Analysis allows themes to emerge naturally from the data without predefined categories (Elo and Kyngäs, 2008); follows a bottom-up approach, allowing flexibility in data interpretation; and is useful for exploring new insights or concepts not captured by existing theories. This research adopted

a mixed approach, leveraging both deductive and inductive content analysis to maximise analytical depth and validity. The rationale and approach is outlined below.

- **Deductive Analysis:** Given that study had pre-existing domains, the analysis initially applied deductive coding based on themes related to entrepreneurial skills, pedagogical methods, and entrepreneurship ecosystems.
- **Inductive Analysis:** Once key themes were established, an inductive approach was then used to identify new and emerging themes that were not previously considered.

Combining these methods ensured that the research had a balance between structured analysis and exploratory insight generation, resulting in a more comprehensive and robust understanding of entrepreneurship education (Elo and Kyngäs, 2008).

d) Stages Followed in Content Analysis

Below is a detailed description of the stages of content analysis that were followed (Table 16). This mirrors what is typically followed by many researchers using a Content Analysis approach (Winson-Geideman, 2018; Armat, et al., 2018; Kibiswa, 2019; Kleinheksel, 2020; Lindgren, 2020; Kyngas, 2020; Kyngas, 2020).

Table 16: Stages followed During Content Analysis.

| No | Stage | Details |
|----|------------------------|--|
| 1 | Preparation | This involved defining research objectives, selecting the content to be analysed, and developing coding schemes or frameworks to guide the analysis. |
| 2 | Data Collection | Involves gathering the relevant content, which, in this case, included audio recordings of the focus groups and the transcriptions from the focus group interviews. |
| 3 | Familiarisation | In this initial stage, researchers become acquainted with the data by reading and re-reading the text to gain a thorough understanding of its content and context (Elo and Kyngäs, 2008). For this research, the researcher revisited the audio recordings, and initially listened to them without taking any notes, just to get a good feel of the data and what to expect during the analysis phase. |
| 4 | Word Frequency | Word frequency analysis is a method used to analyse textual data by identifying and counting the frequency of words within a document. It |

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| | Analysis | involves systematically counting the occurrences of each word and organising the words in order of frequency or percentage of usage across the different data sets or categories. Using Atlas Ti, this research extracted insights from the most common or significant words used in the text. This was particularly useful for understanding themes, patterns, or trends within the data (Pennington et al., 2014). This informed further stages such as coding, and thematic analysis. |
| 5 | Coding | This stage involves identifying and labelling specific pieces of data (i.e., codes) based on particular piece of key issue, themes, concepts or patterns within the text (Hsieh and Shannon, 2005). The coding for this research was performed using Atlas Ti software, and a full list of codes is available in Appendix 9.17.1. In the context of this research, the generated codes represented individual references to specific pieces of information or insights. |
| 6 | Analysis | <ul style="list-style-type: none"> • Category Development: While a single code may lack significance on its own, when organised collectively, multiple codes start to convey a narrative, helping the researcher in comprehensively interpreting the coded data to discern patterns, trends, and significant relationships. This process encompasses both statistical analyses, as demonstrated in the quantitative content analysis that was conducted, as well as thematic analysis, akin to the qualitative content analysis that was also undertaken in this research. Using Atlas Ti software, the codes were grouped into broader categories and in a hierarchical structure, based on how similar they were to each other, or the kind of relationships they had with each other (Graneheim and Lundman, 2004). • Theme Identification: From the categories, themes begun to emerge. These were identified by organising the various categories into overarching patterns / themes that captured the essence of the data (Braun and Clarke, 2006). • Data Interpretation: The final phase included interpreting the data within the context of the identified themes and categories, with the main aim of uncovering underlying meanings and implications (Elo and Kyngäs, 2008), which were then presented in the findings. |
| 7 | Verification and Trustworthiness | Throughout the analysis process, this research employed various strategies to ensure the rigor and credibility of the final findings. The researcher occasionally went back to the audio and video recordings of the focus groups interviews so as to ascertain the context in which certain words or responses were given. This also included an inference |

| | | |
|---|------------------|---|
| | | from the tonation to deduce what the respondents are likely to have been meaning, as opposed to just picking information from the transcripts. Also, various version of the same data were kept at every stage to maintain an audit trail (Lincoln and Guba, 1985). |
| 8 | Reporting | The final stage involves presenting the findings in a clear and organised manner (See Chapter 5.3.2). While there is no direct guidance on a particular format that must be followed, the findings from this analysis are presented in form of text summaries and categorisations, but also using tables and visualisations such as word cloud. |

e) Word Inclusion and Exclusion Criteria

The data underwent preprocessing procedures to ensure accuracy and robustness. This included the exclusion of numerical values, single-character words, hyphens, and underscores. Also, case distinctions were disregarded, and base forms were inferred to consolidate similar words (Smith, 2020). Variations such as plural forms, past tense, past participle, present participle forms of verbs, and comparative and superlative forms of adjectives and adverbs were amalgamated into singular entities (Jones and Brown, 2018).

Inclusion criteria were applied, wherein only words occurring with a frequency of at least 20 were retained, while those deemed insignificant or unrelated to the research questions were omitted (Johnson et al., 2019). Notably, terms present in one dataset but absent in the other were incorporated to facilitate comparative analysis, especially between students and lecturers' perceptions (Adams, 2017). Additionally, cues such as "also" and "Umm" were included to capture instances of uncertainty or hesitation (Johnson and Smith, 2021). Below is a summary of the inclusion and exclusion criteria that was followed (Table 17) – adopted from (Krippendorff, 1989; Forman and Damschroder, 2007; Lindsay, 2014).

Table 17: Inclusion and exclusion criteria

| Inclusion Criteria | Exclusion Criteria |
|--|--|
| <p>Relevance: Words or phrases pertinent to the research objectives were retained. For instance, as the research was looking at the acquisition of entrepreneurship skills, terms related to entrepreneurship and associated skills or teaching methods, were preserved.</p> <p>Frequency: Terms recurring frequently within the</p> | <p>Irrelevance: Terms irrelevant to the research objectives, including stop words and prepositions, were excluded as they did not contribute meaningfully to the analysis.</p> <p>Ambiguity: Ambiguous or vague terms were</p> |

| | |
|---|---|
| text were included, as high-frequency terms often signify prevalent themes or topics. | omitted to prevent inconsistent or unreliable interpretations. |
| Variability: Words or phrases exhibiting variability or diversity in usage were incorporated to capture a range of perspectives or opinions present in the content. | Technical Terms: Technical jargon or terms not central to the content under analysis were excluded to enhance the accessibility of findings to a broader audience. |
| Contextual Meaning: As the research was exploring ecosystems, words conveying specific meanings within the context of the content were retained to ensure accurate interpretation. | Redundancy: Redundant or repetitive terms were excluded to streamline the analysis and prevent skewing of results. |

4.4.2.2 Thematic Analysis

Phase two of the data analysis in this research broadly followed Braun and Clarke's Thematic Analysis (2006, 2019), which is renowned for its flexibility in exploring both predetermined and emergent themes in qualitative data. Similar to content analysis, thematic analysis involves identifying patterns, categories, and themes within the dataset, offering a structured yet adaptable approach to qualitative inquiry (Braun and Clarke, 2006, 2019).

a) Justification For Using Thematic Analysis

Thematic analysis was selected as the primary methodological approach for analysing qualitative data in this study due to its suitability for identifying both pre-existing and emergent themes within the focus group discussions. While alternative qualitative methods such as grounded theory and narrative analysis were considered, thematic analysis was deemed the most appropriate for several reasons.

i. Flexibility and Suitability for the Research Paradigm

Unlike grounded theory, which is primarily used for generating new theories from data (Bryman, 2016), thematic analysis is not bound by a rigid theoretical framework (Braun and Clarke, 2019). This adaptability was particularly important in this study, which sought to explore pre-existing research domains (entrepreneurial skills, pedagogical methods, and ecosystems) while remaining open to new insights emerging from participant discussions.

ii. Ability to Capture Both Predetermined and Emergent Themes

One of the strengths of thematic analysis is its ability to accommodate structured coding while also allowing for emergent themes (Braun and Clarke, 2019). This dual capability was crucial in this study, where initial coding was based on the research domains, but additional themes were identified iteratively as data analysis progressed. This approach ensured that unexpected but significant insights were not overlooked.

iii. Balance Between Structure and Interpretative Depth

Compared to other qualitative analysis methods, thematic analysis provides a structured yet interpretative approach, making it particularly suitable for exploring the nuanced aspects of participant responses.

- **Comparison with Content Analysis:** Content analysis is useful for quantifying text and identifying frequency-based patterns (Miles and Huberman, 1994; Hsieh and Shannon, 2005). However, it is often less effective at capturing contextual nuances and deeper meanings within qualitative data. To address this, thematic analysis complemented content analysis, ensuring that both structured coding and deeper interpretative insights were incorporated.
- **Comparison with Narrative Analysis:** Narrative analysis primarily focuses on interpreting individual stories and personal experiences (Riessman, 1993, 2008; Polkinghorne, 1995). While valuable for understanding individual perspectives, it does not always allow for the identification of overarching themes across multiple narratives. Thematic analysis was therefore preferred, as it facilitated the identification of cross-cutting themes that emerged across different focus group discussions, allowing for comparative insights across participants and institutions.

By employing thematic analysis, this study achieved a balance between structure and interpretative flexibility, systematically identifying patterns, categories, and themes while also remaining open to unexpected insights. This approach allowed for a rigorous yet adaptive exploration of the research domains, ensuring that the findings captured both broad patterns and context-specific nuances.

b) Systematic Approach to Thematic Analysis

The methodology employed in this study is characterised as "systematic," indicating that it is structured, sequential and linear in its interpretation of the data. It was important to use a systematic approach so as to ensure consistency, replicability, and clear linkages between the data itself, the interpretation therefrom, and conclusions drawn, thus minimising potential biases (Naeem et al., 2023).

The process commenced with transcribing recorded interviews, converting participants' words verbatim into written form to facilitate accurate analysis (Bryman, 2016). This transcription was crucial for subsequent systematic coding and analysis, which was efficiently conducted using Atlas Ti software, known for its effectiveness in handling large qualitative datasets (Lewis, 2004; Bryman, 2016). Below is this research's chronological stages of Thematic Analysis (Table 18), as adopted from Braun and Clarke (2006, 2019) and Naeem et al. (2023):

Table 18: Systematic Thematic Analysis stages followed

| Stage No. | Stage Name | Details |
|-----------|--|--|
| 1 | Familiarisation with the Data | This involved the researcher transcribing the data and taking the opportunity to immerse themselves in the data by reading and re-reading of the transcripts to become deeply familiar with the content. Key quotations were identified, summarised, and brief notes made to capture the researcher's initial understanding of the participants' observations. |
| 2 | Generating Initial Codes / 1st Order Concepts | Using Atlas Ti, and the above quotations as a guide points, the researcher then systematically coded interesting features across the entire dataset. Segments of data were labelled with codes that captured the essence of what was being discussed. |
| 3 | Searching for 2nd Themes | Codes were grouped into potential themes based on patterns and connections between them. These 2 nd order themes represented broader patterns of meaning across the dataset. |
| 4 | Reviewing Themes | 2nd order themes were reviewed and refined to ensure they accurately reflected the coded data. Some themes were collapsed into each other or split into separate themes for clarity. |
| 5 | Defining and Naming Themes | Final themes were clearly defined and named to capture the essence of what each theme represented. |
| 6 | Writing Up | The final analysis was written up, integrating thematic insights with direct quotes from the data in order to provide evidence and illustrate the themes. The write-up offered a coherent narrative of the findings, and helped to link the content back to the research questions and objectives. This stage culminated into the development of the research's revised conceptual framework |

c) Keyword Inclusion and Exclusion Criteria

A critical component of thematic analysis is the systematic selection of keywords, which serve as anchor points for identifying and interpreting core ideas within the dataset (Braun and Clarke, 2006, 2019). Keyword selection plays a crucial role in ensuring rigour, methodological consistency, and analytical depth, as it directly shapes the generation of codes and subsequent theme development. Given its significance, this research adopted the 6Rs framework (Naeem et al., 2023) to guide the selection and evaluation of keywords, ensuring a structured, data-driven, and theoretically grounded approach.

Justification for the 6Rs Framework

The 6Rs – Realness, Richness, Repetition, Rationale, Repartee, and Regal – provide a robust framework for identifying meaningful, contextually relevant, and analytically valuable keywords (Naeem et al., 2023). This method was chosen because it offers a balanced approach, mitigating the potential pitfalls of alternative keyword selection strategies:

- **Comparison with Frequency-Based Keyword Selection:** Some studies rely on frequency counts to determine key terms (Fereday and Muir-Cochrane, 2006; Miles et al., 2019; Saldana, 2021). However, a frequency-based approach may prioritise commonly mentioned words while overlooking subtle but significant concepts, which are often equally or more critical in qualitative research. By contrast, the 6Rs framework accounts for both commonly occurring and contextually rich terms, ensuring a more nuanced and insightful thematic analysis.

- a) **Comparison with Researcher Discretion:** An alternative approach is researcher-led keyword selection, where the researcher identifies key terms based on their own interpretations (Hsieh and Shannon, 2005). However, this method may introduce bias or subjectivity, potentially influencing theme development in a way that is not fully grounded in participant data. To this end, the 6Rs framework provides a structured yet flexible methodology, minimising subjectivity while maintaining interpretative depth.

By implementing the 6Rs framework (Table 19), this study ensured that keyword selection was systematically aligned with the research objectives, balancing objectivity and interpretative flexibility. This enhanced the validity of the thematic analysis, allowing for a comprehensive and context-sensitive exploration of entrepreneurship education, skills, and ecosystems.

Table 19: Application of the 6Rs Framework

| R | Definition |
|-------------------|---|
| Realness | The analysis focused on selecting keywords that authentically represented the genuine experiences or viewpoints of participants. This ensured that the codes derived from these keywords accurately reflected the essence of the data, so as to enhance the credibility and trustworthiness of the analysis. |
| Richness | Richness pertains to choosing keywords that capture the depth and complexity of the data. The keywords chosen were those that facilitated a comprehensive understanding of the phenomena under investigation. This allowed the researcher to explore nuances and subtleties within the dataset, which is one of the benefits of thematic analysis as a methodology. |
| Repetition | Repetition involves identifying terms or phrases that occur frequently or are repeated throughout the dataset – regardless of whether they made sense or not. Such keywords often indicate salience and importance within the data that perhaps isn't always initially apparent - signalling recurring themes or patterns that warrant further exploration. So repetitive words were not ignored. |
| Rationale | Rationale, as the word suggest, emphasises selecting keywords based on a clear rationale or justification. At every stage, the researcher ensured that the chosen terms aligned with the research objectives and the theoretical framework, thereby enhancing the coherence and relevance of the thematic analysis. |
| Repartee | Repartee refers to selecting phrases that reflect the dynamic exchange and interaction between participants. While by themselves, these keywords might seem irrelevant or redundant, their inclusion added context and nuance to the analysis, capturing the interpersonal dynamics and communication styles present in the data – particularly from the different ecosystem participants, and especially those in Uganda whose first language was not English. |
| Regal | Regal entails choosing terms that exude authority, significance, or importance within the context of the data. The analysis included keywords that commanded attention and conveyed the weightiness of certain concepts or ideas. This contributed to the overall depth of the analysis. |

4.5 KEY ASSUMPTIONS OF THE RESEARCH

Assumptions are underlying principles that the researcher accepts as true, even if they are not directly observable or proven. Essentially, assumptions serve as foundational propositions upon which the research is built, and without them, the research problem itself would not exist (Leedy and Ormrod, 2010). They form the core elements of the research

framework, shaping how the study is conceptualised, conducted, and interpreted. Therefore, it was essential to identify and acknowledge these assumptions to ensure and demonstrate transparency in the research process (Leedy and Ormrod, 2015; 2010).

- **Assumption 1:** EE methods influence students' entrepreneurship skills.
- **Assumption 2:** It was assumed that students' overall behaviours, including entrepreneurial behaviours, was likely to be shaped by environmental factors and experiences, and subsequently, their receptiveness to EE (Fayolle and Gailly, 2008). However, this extent was not established, hence the study.

4.6 DELIMITATIONS OF THE RESEARCH

Delimitations define the boundaries or parameters of the research, specifying what aspects are included and excluded from the study (Gall et al., 2007). The following boundaries helped to focus the research effort and clarify its objectives

- a) The research focuses specifically on EE methods and their alignment with the local entrepreneurship ecosystem, excluding other aspects of EE.
- b) The study is delimited to specific geographic regions (UK and Uganda) and the respective university settings, which may limit the generalisability of the findings to other contexts.
- c) The research focused exclusively on undergraduate students enrolled in business and EE programmes at the selected universities. This, as opposed to masters' students or those from other faculties and colleges.
- d) The research focused exclusively on lecturers teaching on business and entrepreneurship modules only.
- e) The study does not explore the long-term impact of EE methods on students' entrepreneurial outcomes post-graduation. Given the constraints of time and resources, the research focused on assessing immediate effects rather than tracking students' entrepreneurial activities and achievements beyond their university years.

Due to the COVID-19 pandemic and its ongoing impact on higher education and entrepreneurship ecosystems, this research focuses specifically on the period just before the pandemic. While acknowledging the potential significance of the pandemic's effects on

EE methods and the broader entrepreneurial ecosystem since then, this study delimits its scope to avoid the complexities introduced by the pandemic's dynamic and evolving.

4.7 SUMMARY OF THE METHODOLOGY CHAPTER

The Methodology Chapter outlined the research design, data collection, and analytical approaches used to address the study's key questions.

Although the research primarily focused on qualitative findings, a preliminary survey was conducted to establish baseline data on students' self-assessed entrepreneurial competencies, lecturers' perceptions of student abilities, and the perceived effectiveness of different EE methods. Additionally, focus groups involving lecturers and students from both institutions provided deeper insights into the relationship between the three research domains.

The chapter also detailed the sampling strategy, ethical considerations, and data analysis techniques to ensure the study's reliability and validity.

These methodological choices lay a solid foundation for interpreting the data, leading into the next chapter – Results and Findings – where key insights, patterns, and relationships emerging from the analysis are explored.

5. RESULTS / FINDINGS

5.1 BACKGROUND

The findings chapter predominantly covers the intricate relationship between entrepreneurship skills, EE methods and entrepreneurship ecosystems. With a focus on BCU and MUBS, the research aimed to achieve these primary objectives.

1. To establish the extent to which the students at the participating universities were perceived to be entrepreneurial.
2. To establish the extent to which students' entrepreneurship skills were developed through EE at the participating universities.
3. To examine how entrepreneurship ecosystems influence the selection and efficacy of EE methods at the participating universities.

Presentation Of Results and Findings

The research was conducted in two phases. The first phase was a pre-study of surveys of students and lecturers (quantitative) while the second was focus group discussions with lecturers and students (qualitative) from both institutions. Data collected from each phase was analysed separately, as explained in the methodology Chapter Three. The chapter begins with presentation of findings from the pre-study (Section 5.2) and concludes with the focus groups (Section 5.3). This sequential approach allowed for a comprehensive exploration of the data, with the focus groups providing an opportunity to delve deeper into the initial survey results.

5.2 FINDINGS FROM PRE-STUDY

This section presents the findings from the pre-study conducted as an initial phase to inform the broader research design and approach. Unlike the pilot study, which focused on refining data collection instruments and methodologies, the pre-study served as an exploratory investigation to identify key themes and trends related to entrepreneurship skills, teaching methods, and the influence of entrepreneurship ecosystems on education and skill development. The pre-study used surveys which were administered to both students and

lecturers at Birmingham City University (BCU) in the UK, and Makerere University Business School (MUBS) in Uganda. The surveys aimed to capture perceptions of entrepreneurial competencies, preferences for entrepreneurship education (EE) methods, and the role of local ecosystem factors in shaping both the delivery and outcomes of EE. This section therefore provides a concise summary of the key findings, thematically organised around the above three primary research domains. The first section examines students' self-assessment of their entrepreneurial skills and how these were evaluated by lecturers, highlighting perceived strengths and gaps in competencies. The second section explores preferences and perceptions regarding EE teaching methods, providing insights into the effectiveness of different pedagogical approaches. The final section delves into the perceived impact of ecosystem factors on both entrepreneurship education practices and the development of entrepreneurial skills.

The complete and detailed pre-study report is available in Appendix 9.4, which includes demographic details such as gender, age, year of study, and, for lecturers, teaching responsibilities and subjects covered. This summary focuses solely on the findings that were statistically significant or otherwise noteworthy, while the full dataset, the analysis, and results that did not yield significant differences, is all available in Appendix 9.4.

Methodological Approach for the pre-study

The surveys consisted of structured questionnaires that included mainly closed-ended questions with predetermined response options – save for lecturers where a couple of questions allowed them the opportunity to elaborate (Appendix 9.14). Survey Data was analysed using a combination of descriptive and inferential statistics. Descriptive statistics were used to analyse the profiles of the participants such as age, gender, region, course and year of study. It was also used to capture frequency distribution of the responses in line with the variables under investigation. Inferential statistics were used to test the statistical significance of the relations between different variables. However, given that the sample sizes were small and that the purpose of the pre-study was to share overall insights to inform the deeper study, the following findings should not be consumed in isolation. But rather, they should be used as precursor to the qualitative findings provided in Chapter 5.3. The rationale and full details of this approach are captured in the methodology chapter (Chapter 4.2).

5.2.1 PERCEPTIONS ON ENTREPRENEURSHIP SKILLS

One of the core objectives of this research was to assess the extent to which students at the participating universities perceived themselves as entrepreneurial. Students rated their competencies across seven key areas using a seven-point Likert scale, where 1 represented the lowest level of skill possession and 7 the highest:

1. Creativity and Innovation
2. Opportunity Recognition, Creation, and Evaluation
3. Decision-Making Supported by Critical Analysis, Synthesis, and Judgment
4. Implementation of Ideas Through Leadership and Management
5. Action and Reflection
6. Communication and Strategy Skills
7. Digital and Data Skills

The data was analysed using SAS to determine overall perceptions of entrepreneurship skills and any significant differences between students at BCU and MUBS.

- a) **Creativity and Innovation:** A significant majority of students (85%) from both institutions rated themselves between 4 and 7, indicating strong confidence in their creative and innovative abilities.
- b) **Opportunity Recognition, Creation, and Evaluation:** The response distribution was similar between the two institutions, with most students rating themselves between 4 and 6, demonstrating confidence in their ability to recognise and evaluate opportunities.
- c) **Decision-Making Supported by Critical Analysis, Synthesis, and Judgment:** MUBS students rated themselves significantly higher than BCU students in decision-making competencies, with a statistically significant p-value of 0.0132. The majority of MUBS students rated themselves between 5 and 7, while BCU students clustered their responses between 4 and 5.
- d) **Implementation of Ideas Through Leadership and Management:** Students from both institutions largely rated themselves between 4 and 6, suggesting a shared perception of strong leadership and management skills in executing ideas.

- e) **Action and Reflection:** While both groups rated themselves between 4 and 6, MUBS students exhibited a slight tendency to rate themselves at the upper end (between 5 and 7).
- f) **Communication and Strategy Skills:** MUBS students rated themselves significantly higher in communication and strategy skills compared to their BCU counterparts, with a statistically significant p-value of 0.0074.
- g) **Digital and Data Skills:** MUBS students perceived themselves as having superior digital and data skills, particularly at the higher ratings (6 and 7), while BCU students had more responses in the mid-range (3 and 4). The p-value of 0.0402 indicates a statistically significant difference between the two institutions.

Key Observations on Student Entrepreneurial Skill Ratings

- **Commonality of Entrepreneurial Skills:** The consistency in responses across the two institutions suggests a shared understanding of entrepreneurship competencies, which may indicate similarities in EE pedagogical approaches.
- **Differences Between BCU and MUBS:** Across all skill areas, MUBS students consistently rated themselves higher than BCU students, with statistically significant differences in decision-making, communication, and digital/data skills.

Students' Entrepreneurship Skills by Gender and Mode of Study

- **Gender Differences:** Males at both institutions tended to rate themselves slightly higher than females, though this difference was not statistically significant, except in digital and data skills at BCU ($p = 0.0641$).
- **Full-Time vs. Part-Time Students:** No statistically significant differences were found between full-time and part-time students regarding entrepreneurship skill possession, though part-time students at MUBS rated themselves slightly higher across several competencies.

Students' Entrepreneurship Skills by Home Region (Uganda Only)

Given Uganda's regional and cultural diversity, this study examined differences in entrepreneurship skills across students from Central, Eastern, Northern, and Western Uganda. Two areas yielded statistically significant differences:

- **Communication Skills:** Significant regional variations emerged in students' preferences for developing communication skills, with students from Central Uganda preferring curricular methods, Eastern Uganda preferring extracurricular methods, and Northern Uganda favouring co-curricular methods ($p = 0.0147$).
- **Digital and Data Skills:** Preferences for how digital and data skills were taught varied by region, with Central Uganda students favouring curricular approaches, while those in Eastern and Northern Uganda leaned towards extracurricular and co-curricular methods, respectively.

Lecturers' Perspectives on Students' Entrepreneurship Skills:

The findings from the pre-study indicate that students at both institutions perceive themselves as highly entrepreneurial, with MUBS students consistently rating themselves higher than BCU students. While lecturers also rated their students' entrepreneurship skills highly, students consistently rated themselves even higher. This discrepancy was particularly pronounced in decision-making ($p = 0.0132$), communication ($p = 0.0074$), and digital/data skills ($p = 0.0402$). The overall mean score for entrepreneurship skills rated by lecturers was 27.1, compared to the student self-assessed mean score of 35.5, a statistically significant difference ($p = 0.0176$).

5.2.2 PERCEPTIONS OF ENTREPRENEURSHIP EDUCATION METHODS

Entrepreneurship education is delivered through various teaching methods that range from structured academic coursework to experiential learning opportunities. This study examined how students perceived the effectiveness of different EE methods in equipping them with essential entrepreneurship skills.

Curricular Approaches: Curricular methods include structured, classroom-based learning that covers theoretical concepts, case studies, and business simulations. Students at both institutions acknowledged the value of curricular approaches, particularly in developing foundational entrepreneurship skills such as opportunity recognition ($p = 0.0091$) and digital

and data skills ($p = 0.0011$). However, MUBS students rated curricular methods significantly higher, suggesting a stronger emphasis on structured learning within their institution.

Co-Curricular Approaches: Co-curricular methods, which include workshops, guest lectures, and entrepreneurship competitions, were perceived as moderately effective in enhancing entrepreneurship skills. While students at both universities showed a preference for co-curricular methods in fostering action and reflection skills, the ratings were mixed for other competencies. The p -value of 0.0265 indicates that students at MUBS perceived co-curricular approaches as slightly more effective compared to their BCU counterparts.

Extracurricular Approaches: Extracurricular methods, such as startup incubators, internships, and student-led entrepreneurial ventures, emerged as the most preferred approach among students, particularly for skills related to decision-making ($p = 0.0389$), communication ($p = 0.0029$), and strategic thinking. MUBS students expressed a significantly stronger preference for extracurricular activities compared to BCU students, indicating a greater emphasis on experiential learning within their institution.

Comparison of Lecturer and Student Preferences for Teaching Methods

The findings from the pre-study indicate that students at both institutions perceive themselves as highly entrepreneurial, with MUBS students consistently rating themselves higher than BCU students. Differences also emerged in teaching method preferences, with extracurricular activities being rated as the most effective for developing entrepreneurship skills.

However, one of the key objectives of this research was to compare student and lecturer perceptions of the effectiveness of different entrepreneurship education (EE) teaching methods. While students at both BCU and MUBS demonstrated a strong preference for experiential and practical learning approaches, lecturers largely favoured structured curricular methods, thereby highlighting a potential disconnect in teaching approaches. This section highlights the key differences and similarities between student and lecturer preferences, providing insights into potential misalignments in EE delivery.

a) Curricular Methods: A Lecturer-Dominant Approach

Lecturers at both institutions rated curricular methods as the most effective way to deliver EE, demonstrating a preference for structured teaching approaches. They viewed classroom-based instruction, assessments, and theoretical content as fundamental to equipping students with entrepreneurial competencies. In contrast, while students acknowledged the value of curricular methods, they generally rated extracurricular methods as more effective not in fostering entrepreneurial all skills, but as decision-making, opportunity recognition, and communication.

At MUBS, students displayed a more balanced appreciation of both curricular and experiential methods, while at BCU, students showed a clear inclination toward experiential learning but encountered institutional constraints that limited opportunities for hands-on experiences.

b) Extracurricular Methods: A Student Preference vs. Lecturer Hesitation

Students at both universities strongly favoured extracurricular activities – such as student-led ventures, incubators, networking events, and business competitions – as the most effective means of developing entrepreneurship skills. This was particularly pronounced for skills like decision-making ($p = 0.0389$), communication and strategy ($p = 0.0029$), and opportunity recognition ($p < 0.0001$), where students rated extracurricular methods significantly higher than lecturers.

Lecturers, however, expressed a notable reluctance to prioritise extracurricular learning, especially at BCU. Some cited institutional constraints, curriculum requirements, and student workload concerns as barriers to expanding extracurricular EE opportunities. MUBS lecturers were comparatively more open to integrating practical and hands-on approaches but still emphasised the necessity of structured curricular content in providing theoretical foundations.

c) Co-Curricular Methods: The Middle Ground

Co-curricular approaches received moderate ratings from both students and lecturers, indicating a potential middle ground for aligning EE delivery with student learning

preferences. At MUBS, co-curricular methods were seen as particularly effective in bridging theory and practice, whereas at BCU, lecturers viewed them as supplementary rather than central to entrepreneurship education.

d) Key Divergences and Misalignments

The comparative analysis reveals several key misalignments between student and lecturer perceptions of EE methods:

- **Student-Centric vs. Lecturer-Centric Learning Approaches:** Students leaned toward experiential, hands-on learning, while lecturers favoured structured, classroom-based approaches.
- **BCU vs. MUBS Institutional Differences:** At MUBS, lecturers were more receptive to flexible teaching methods, whereas at BCU, institutional policies and rigid structures constrained alternative EE approaches.
- **Extracurricular Learning Gap:** Students widely favoured extracurricular engagement, but lecturers – especially at BCU – hesitated to fully integrate such methods into EE.
- **The Role of Co-Curricular Learning:** Co-curricular approaches represent a potential compromise between lecturer preferences for structure and student preferences for experiential learning.

Summary

The findings highlight a fundamental gap between student learning preferences and lecturer teaching methods in EE. While students strongly favour practical, experiential, and extracurricular learning, lecturers remain more inclined towards curricular-based instruction. Addressing this disconnect – through greater integration of experiential learning within formal curricula, enhanced flexibility in teaching approaches, and institutional support for extracurricular activities – could significantly enhance the effectiveness of EE in both contexts.

5.2.3 PERCEPTIONS ON THE EFFECT OF ENTREPRENEURSHIP ECOSYSTEMS ON EE

This section presents findings from the pre-study, focusing on how students and lecturers at BCU and MUBS perceive the impact of their respective entrepreneurship ecosystems on EE.

The analysis is framed within Isenberg's (2011) six key domains of the entrepreneurship ecosystem: Culture, Markets, Human Capital, Finance, Supports, and Policy.

Lecturers at both institutions acknowledged the role of the entrepreneurship ecosystem in shaping students' entrepreneurial mindsets and opportunities. However, there were notable differences between BCU and MUBS in terms of which ecosystem factors were perceived as most influential on EE.

Culture and Entrepreneurial Mindset Development: Lecturers at BCU and MUBS both agreed that culture plays a fundamental role in shaping students' perceptions of entrepreneurship, but they differed in their assessments of how supportive their local cultures were toward entrepreneurship. MUBS lecturers rated the influence of culture on EE higher, highlighting that Uganda's high levels of necessity-driven entrepreneurship naturally foster a strong entrepreneurial culture among students.

Human Capital and Entrepreneurial Skill Development: MUBS lecturers placed a significantly higher emphasis on human capital development, rating it as a key ecosystem factor that shapes entrepreneurship education. On the other hand, BCU lecturers acknowledged the availability of high-quality educational resources and institutional support but suggested that students lacked entrepreneurial exposure and risk-taking tendencies compared to their MUBS counterparts.

Policy and Institutional Support: Both sets of lecturers agreed that policy frameworks play a role in shaping EE, but MUBS lecturers rated policy influence significantly higher than their BCU counterparts. MUBS lecturers cited government-driven entrepreneurship initiatives and educational policy reforms aimed at fostering an entrepreneurial culture. BCU lecturers, in contrast, expressed concerns about bureaucratic constraints, with some suggesting that entrepreneurship education is not a central institutional priority compared to other disciplines.

Finance and Access to Entrepreneurial Resources: Finance emerged as one of the most significant ecosystem challenges for students in both institutions. Lecturers at both BCU and MUBS acknowledged ranked its influence highly.

Markets and Entrepreneurial Opportunities: MUBS lecturers rated market opportunities as a stronger influence on EE compared to their BCU counterparts. BCU lecturers on the other hand highlighted that while market opportunities exist, students often require more structured support in navigating business landscapes.

Institutional Supports and Networks: MUBS lecturers rated support systems higher than their BCU counterparts, citing a strong sense of community-based entrepreneurial support and mentorship from local business leaders in Uganda. BCU lecturers acknowledged the role of university-led initiatives but suggested that more structured mentorship and networking opportunities were needed to engage students effectively. This suggests that while formal institutional support mechanisms at BCU may be stronger, MUBS benefits from informal but effective community-driven support networks.

Summary: Implications for Entrepreneurship Education

While the main focus on questions regarding the entrepreneurship ecosystem were targeted at lecturers, students at BCU and MUBS provided good insights and shared their diverging perspectives on how their respective entrepreneurship ecosystems influenced their education and entrepreneurial aspirations. The majority of students at MUBS reported being aware of key entrepreneurship ecosystem elements, whereas awareness levels at BCU were more varied. The overall findings reveal fundamental differences in how the entrepreneurship ecosystems at BCU and MUBS shape EE delivery and entrepreneurial aspirations among students. Particularly, the findings suggest that entrepreneurial culture is more deeply ingrained in Uganda compared to BCU, and that institutional policies influence EE differently, with MUBS benefiting from more direct government-driven entrepreneurship initiatives, while BCU faces challenges in prioritising EE alongside other academic disciplines.

The final research objective aimed to explore how entrepreneurship ecosystems influence the selection and effectiveness of EE methods at the participating universities. The survey findings indicate that with the exception of the Culture domain, MUBS lecturers consistently rated the impact of all ecosystem factors on students' entrepreneurial skills higher than their counterparts at BCU. This suggests that MUBS lecturers perceive a stronger connection between ecosystem elements and the development of entrepreneurship skills in their

students. Overall, these findings suggest that indeed, the local entrepreneurship ecosystem plays a crucial role in shaping lecturers' perceptions of the most effective methods for developing students' entrepreneurship skills.

5.2.4 SUMMARY OF KEY FINDINGS FROM THE PRE-STUDY

The study set out to achieve the following three key objectives;

- i. To establish the extent to which the students at the participating universities were perceived to be entrepreneurial.
- ii. To establish the extent to which students' entrepreneurship skills were developed through EE at the participating universities.
- iii. To examine how entrepreneurship ecosystems influence the selection and efficacy of EE methods at the participating universities.

The data collected from students and lecturers at BCU and MUBS highlights key similarities and differences in perceptions regarding the three core areas of this research – entrepreneurship skills, pedagogical approaches, and the role of the entrepreneurship ecosystem – offering a foundation for further exploration in the qualitative phase of the study.

OBJECTIVE 1: PERCEPTION OF ENTREPRENEURSHIP SKILLS' POSSESSION

The findings reveal that students at both institutions generally perceive themselves as highly entrepreneurial, though MUBS students consistently rated themselves higher across all key competencies compared to their BCU counterparts. This was particularly evident in decision-making, communication, and digital/data skills, where MUBS students demonstrated greater confidence and self-assessment ratings than BCU students. Conversely, lecturers rated students' entrepreneurial skills lower than the students rated themselves, indicating a perception gap between educators and students in both institutions. This disparity was more pronounced in the UK than in Uganda, suggesting differences in how students' competencies are evaluated within different educational and cultural contexts. The implications of these findings point to the need for more aligned

assessments of entrepreneurship competencies between students and lecturers to ensure that educational interventions address actual skill gaps rather than perceived ones.

OBJECTIVE 2: PEDAGOGICAL APPROACHES

In terms of entrepreneurship education methods, the study reveals distinct institutional preferences and differences in student and lecturer perspectives. Students at both institutions favoured extracurricular activities for developing skills such as creativity, opportunity recognition, and communication, highlighting the importance of hands-on, practical learning.

In particular, MUBS students showed a stronger preference for extracurricular methods across most skill areas, especially in later years of study, while BCU students displayed a more balanced preference between curricular, co-curricular, and extracurricular approaches. Lecturers, in contrast, overwhelmingly favoured curricular approaches, particularly at BCU, where extracurricular methods were less frequently used and less valued compared to MUBS. This misalignment between student preferences and lecturer practices suggests a potential need for greater integration of experiential learning opportunities into formal curricula, especially at BCU.

Furthermore, findings on teaching method preferences across academic years suggest that third-year students at both institutions tend to value practical and hands-on approaches more than first-year students, indicating a growing appreciation for experiential learning as students progress through their studies. This highlights the importance of progressively integrating active, real-world learning experiences into EE curricula to enhance engagement and skill development.

OBJECTIVE 3: THE ROLE OF THE ENTREPRENEURSHIP ECOSYSTEMS

The pre-study demonstrates the crucial role of the entrepreneurship ecosystem in shaping EE delivery and student engagement with entrepreneurial activities. MUBS lecturers rated the impact of ecosystem factors on students' entrepreneurial skills significantly higher than their BCU counterparts, particularly in the domains of human capital, policy, finance, and market opportunities. Regarding students, MUBS students were more aware of their local

entrepreneurship ecosystem and how it influenced their learning and career aspirations, whereas awareness levels among BCU students were more varied. Institutional support for entrepreneurship education was perceived as stronger at MUBS, where government-driven initiatives played a more direct role in fostering entrepreneurial education, whereas at BCU, EE was often positioned as an elective rather than a core academic focus.

Conclusion:

While the pre-study provided quantitative insights into key trends and patterns, its exploratory nature was not meant to generate definitive conclusions but rather to guide the next phase of the study. With the exception of the possession of entrepreneurship skills, which was exhaustively addressed by the pre-study, the findings serve as a precursor to the qualitative research, which allowed for a deeper, more nuanced exploration of the themes identified in this preliminary phase. Thus, the next section presents the findings from the qualitative study, where in depth focus group interviews provide richer contextual insights into how students and lecturers engage with, and perceive entrepreneurship education. By delving into the lived experiences of participants, this phase of the research sought to validate, expand upon, and challenge the quantitative findings, ultimately leading to a more comprehensive understanding of how EE can be enhanced within different entrepreneurship ecosystems.

5.3 FINDINGS FROM FOCUS GROUP DISCUSSIONS

The pre-study exhaustively addressed objective 1 by establishing the extent to which students at both institutions were entrepreneurial. The findings revealed that students at both institutions generally perceived themselves as highly entrepreneurial, though MUBS students consistently rated themselves higher across all key competencies compared to their BCU counterparts. Lecturers also rated the rated students' entrepreneurial skills highly, but lower than the students rated themselves, indicating a perception gap between educators and students in both institutions. This disparity was more pronounced in the UK than in Uganda, suggesting differences in how students' competencies are evaluated within different educational and cultural contexts.

What wasn't very clear from the pre study was the cause of this disparity. This section, therefore, predominantly addresses the second and third objectives. It presents findings from focus group discussions with students and lecturers from BCU and MUBS regarding the understanding of entrepreneurship skills; the extent to which students' entrepreneurship skills were developed through EE at the participating universities; and examines how entrepreneurship ecosystems influence the selection and efficacy of EE methods, and ultimately entrepreneurship skills at the participating universities.

5.3.1 METHODOLOGICAL APPROACH FOR FOCUS GROUP DISCUSSIONS

The first set of focus groups discussions were conducted separately for each institution and category (students and lecturers, at BCU and MUBS). The second set of focus group discussions was conducted with students of BCU and MUBS combined in order to validate the similarities and differences that emerged from the initial discussions.

PARTICIPANT INFORMATION AND SELECTION CRITERIA

The overall aim of the focus groups was to gather qualitative insights and foster in-depth discussions regarding EE and entrepreneurship skills. The research population comprised of lectures and student community at BCU and MUBS. Lectures were selected based on their diverse teaching experience and subjects taught. Student participants were drawn from various business-related courses, and in different academic years at each of the

participating institutions (Table 20). From this population, respondents were broken down into the following categories:

- i. Business Students at BCU
- ii. Business Students at MUBS
- iii. Business Lecturers at BCU
- iv. Business Lecturers at MUBS
- v. A final combined group consisting of business students from both MUBS and BCU (Table 21). This group of students was merged to help reconcile and make sense of the findings from both institutions. This was randomly selected and predominantly discussed initial findings from the first separate student focus groups to get deeper insights and clarify on some of the responses that were not clear.

Category 1: Student Focus Group - Participant Characteristics

Table 20 highlights key characteristics of the students who participated in the face-to-face focus group discussions at BCU and MUBS. Out of 38 students who expressed interest, 18 were selected for the focus group, primarily based on their course of study, as outlined in the participant selection criteria in Methodology Chapter 4.2.2.2. The group consisted of 44% males, 50% females, and 1 student from MUBS (6%) who preferred not to disclose their gender. BCU accounted for 39% of the participants, while MUBS represented 61%. Most participants (83%) were aged 18-25, with the remaining 17% aged 26-35, all from MUBS. Regarding their academic year, 61% were third-year students, 33% were in their second year, and 6% were first-year students (Table 20).

Table 20, Showing the Student Focus Group Participants.

| Attribute | Total | | BCU | | MUBS | |
|-------------------|-----------|-------------|----------|------------|-----------|------------|
| | No | % | No | % | No | % |
| Gender | | | | | | |
| Male | 8 | 44% | 3 | 17% | 5 | 28% |
| Female | 9 | 50% | 4 | 22% | 5 | 28% |
| Prefer not to say | 1 | 6% | 0 | 0% | 1 | 6% |
| | 18 | 100% | 7 | 39% | 11 | 61% |
| Age | | | | | | |
| 18-25 | 15 | 83% | 7 | 39% | 8 | 44% |

| | | | | | | |
|----------------------|-----------|-------------|----------|------------|-----------|------------|
| 26-35 | 3 | 17% | 0 | 0% | 3 | 17% |
| | 18 | 100% | 7 | 39% | 11 | 61% |
| Year of Study | | | | | | |
| First Year | 1 | 6% | 0 | 0% | 1 | 6% |
| Second Year | 6 | 33% | 2 | 11% | 4 | 22% |
| Third Year | 11 | 61% | 5 | 28% | 6 | 33% |
| | 18 | 100% | 7 | 39% | 11 | 61% |

Category 2: Combined Student Focus Group - Participant Snapshot

Table 21 provides information about the participants in the second combined student focus group, which included students from both BCU and MUBS and was conducted online via Microsoft Teams. The session had 13 participants, lasting 2 hours, 23 minutes, and 44 seconds, with an average attendance time of 1 hour, 53 minutes, and 3 seconds. Out of 41 students who expressed interest, 13 were selected based on their course of study (see Methodology Chapter 4.2.2.2 for the participant selection criteria, and Appendix 9.17. The group consisted of both male and female participants, with the majority attending for over the allocated 2 hours. Notably, Students number 12 and 13 from MUBS had shorter attendance times due to intermittent internet connectivity challenges that which caused them to drop off and rejoin multiple times. Despite these challenges, the remaining participants were engaged throughout the session.

Table 21: Participants of the Combined Student Focus Group.

Start time: 5/11/23, 11:39:14 AM
End time: 5/11/23, 2:02:58 PM
Duration: 2h 23m 44s
Average attendance time: 1h 53m 3s

| Name | Gender | University | Join Time | Leave Time | In-Meeting Duration |
|-----------|--------|------------|----------------------|----------------------|---------------------|
| Student 1 | M | MUBS | 5/11/23, 11:42:40 AM | 5/11/23, 2:02:36 PM | 2h 19m 56s |
| Student 2 | M | MUBS | 5/11/23, 11:42:43 AM | 5/11/23, 2:02:39 PM | 2h 19m 55s |
| Student 3 | F | MUBS | 5/11/23, 11:42:45 AM | 5/11/23, 2:00:22 PM | 2h 17m 36s |
| Student 4 | F | BCU | 5/11/23, 11:44:42 AM | 5/11/23, 1:34:23 PM | 1h 49m 40s |
| Student 5 | F | MUBS | 5/11/23, 11:46:32 AM | 5/11/23, 2:02:30 PM | 2h 15m 57s |
| Student 6 | F | MUBS | 5/11/23, 11:48:29 AM | 5/11/23, 2:02:58 PM | 2h 14m 29s |
| Student 7 | F | BCU | 5/11/23, 11:54:12 AM | 5/11/23, 2:02:24 PM | 2h 8m 12s |
| Student 8 | F | BCU | 5/11/23, 11:55:19 AM | 5/11/23, 2:02:25 PM | 2h 7m 6s |
| Student 9 | F | BCU | 5/11/23, 11:56:19 AM | 5/11/23, 12:10:19 PM | 14m |

| | | | | | |
|------------|---|------|----------------------|----------------------|-----------|
| Student 9 | F | BCU | 5/11/23, 12:12:26 PM | 5/11/23, 2:02:32 PM | 1h 50m 5s |
| Student 10 | F | BCU | 5/11/23, 11:59:36 AM | 5/11/23, 2:02:24 PM | 2h 2m 47s |
| Student 11 | M | BCU | 5/11/23, 11:59:58 AM | 5/11/23, 2:02:16 PM | 2h 2m 18s |
| Student 12 | F | MUBS | 5/11/23, 12:04:05 PM | 5/11/23, 12:07:46 PM | 3m 41s |
| Student 12 | F | MUBS | 5/11/23, 12:09:09 PM | 5/11/23, 12:44:41 PM | 35m 32s |
| Student 12 | F | MUBS | 5/11/23, 12:45:42 PM | 5/11/23, 12:52:06 PM | 6m 23s |
| Student 12 | F | MUBS | 5/11/23, 12:56:39 PM | 5/11/23, 2:02:47 PM | 1h 6m 7s |
| Student 13 | F | MUBS | 5/11/23, 1:40:33 PM | 5/11/23, 2:02:27 PM | 21m 53s |

Category 3: Lecturers' Focus Groups - Participant information

Table 22 provides an overview of the participants in the lecturer focus groups from both BCU and MUBS. These were conducted separately at each institution. Due to COVID-19 social distancing measures, BCU held two separate focus groups, while MUBS lecturers met in one group prior to the pandemic. All lecturers invited were business faculty members. Those teaching non-business courses were not considered. Overall, a total of 16 lecturers participated, with BCU having 8 lecturers across two groups and MUBS having 8 lecturers in a single group. The gender distribution was relatively balanced, with 9 males and 7 females. BCU lecturers all taught undergraduate courses, while MUBS lecturers taught across various levels, including diploma, bachelor, and master's programmes. The subjects taught spanned a range of business-related disciplines such as Business, Entrepreneurship, Marketing, Strategic Management, and Innovation.

The average teaching experience among participants was approximately 6.4 years. BCU lecturers had a wider range of experience, from 3 to 20 years, primarily in business and entrepreneurship. MUBS lecturers' experience varied from 1 semester to 13 years, with a focus on both foundational and advanced topics. For detailed participant selection criteria, see the Methodology Chapter, section 4.2.2.2.

Table 22: Lecturer Participant Profile.

| Lecturer No | Focus Group | Uni | Gender | Years of Teaching Experience | Subjects Taught |
|-------------|-------------|-----|--------|------------------------------|---|
| 1 | 1 | BCU | Male | 7 Years | Business, Entrepreneurship and Innovation Related Subjects. |
| 2 | 1 | BCU | Male | 4 Years | Business, Entrepreneurship and Innovation Related Subjects. |
| 3 | 1 | BCU | Male | 4 Years | Post Graduate Students – Corporate Finance. |

| | | | | | |
|-----------|---|----------|--------|------------|---|
| 4 | 1 | BCU | Female | 3 Years | Business and Entrepreneurship |
| 5 | 2 | BCU | Male | 10 Years | Business and Entrepreneurship |
| 6 | 2 | BCU | Female | 15 Years | Marketing, Strategy Planning and Management. |
| 7 | 2 | BCU | Female | 20 Years | Innovative Thinking, Business and Entrepreneurship. |
| 8 | 2 | BCU | Female | 3 Years | Business and Entrepreneurship, and Marketing |
| 9 | 3 | MUB S | Male | 13 Years | Strategic management (master and bachelor; year 3), principles of business administration (bachelor; year 1), principles of management (bachelors; year 1). |
| 10 | 3 | MUB S | Male | 1 Year | Elements of creativity/enterprising and management (diploma), entrepreneurship development (bachelor). |
| 11 | 3 | MUB S | Male | 4 Years | Project risk management (masters), principles of entrepreneurship innovation, entrepreneurship development (bachelor), business start-up (diploma). |
| 12 | 3 | MUB S | Female | 1 Semester | Enterprise creation development (diploma). |
| 13 | 3 | MUB S | Female | 5 Years | Enterprise creation management (diploma), entrepreneurship development (master), entrepreneurship and service sector (bachelor). |
| 14 | 3 | MUB S | Male | 1 Semester | Business administration (certificate and diploma). |
| 15 | 3 | MUB S | Male | 2 Years | Managing business innovation and growth (diploma), entrepreneurship development (bachelors). |
| 16 | 3 | MUB S | Female | 4 Years | Business and Entrepreneurship |

5.3.2 FINDINGS FROM CONTENT ANALYSIS

This section presents the first phase of qualitative analysis, which employed a systematic content analysis approach. The process commenced with Word Frequency Analysis to identify prominent terms within the dataset, followed by Deductive Qualitative Content Analysis, focusing on entrepreneurship skills, entrepreneurship education (EE) methods, and the entrepreneurship ecosystem. A detailed justification for the selection of these methods is provided in the methodology chapter; however, a brief overview is presented here to contextualise the approach.

Word Frequency Analysis is a content analysis technique used to quantify the most frequently occurring words within textual data, thereby revealing patterns, key themes, and the relative significance of various concepts (Weber, 1990). This was complemented by Deductive Qualitative Content Analysis, a structured approach where data is analysed using predefined categories derived from existing theories or prior research. This method enables

the validation of theoretical frameworks by coding data according to established categories (Elo and Kyngäs, 2008). In addition to the deductive approach, Inductive Qualitative Content Analysis (Elo and Kyngäs, 2008) was also conducted to capture emergent themes beyond pre-existing theoretical constructs. This method allows for the identification of novel insights by systematically coding and interpreting raw data without imposing predefined categories. The combination of deductive and inductive approaches ensured a comprehensive analysis, capturing both theory-driven and data-driven insights. To enhance comprehension and facilitate further analysis, data visualisation techniques, such as word clouds, were also employed to represent the frequency and prominence of key terms. A detailed account of the rationale, methodological choices, and application of these techniques is elaborated in the methodology chapter, section 4.4.2.1.

Stages followed in Content Analysis

Table 23 below provides a structured summary of the stages followed in conducting the content analysis.

Table 23: Stages followed in Content Analysis

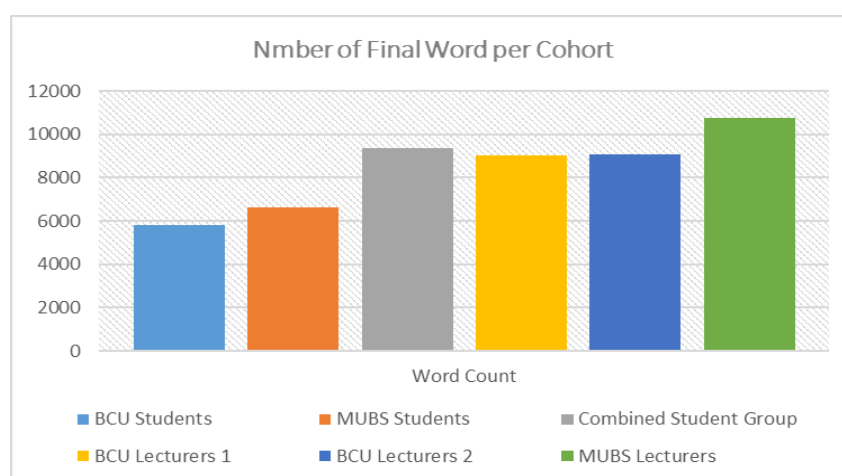
| No | Stage | Details |
|--|----------------------------------|--|
| 1 | Familiarisation | The activity started by getting acquainted with the data by re listening to the audio recordings and re-reading the transcripts to gain a thorough understanding of content, tone and context. |
| 2 | Word Frequency Analysis | Utilised Atlast Ti to extract insights from the most common or significant words. This aided in understanding themes, patterns and trends. |
| 3 | Coding | Used Atlas Ti software to identify and label specific pieces of data (codes) based on key issues, themes, concepts or patterns within the text. |
| 4 | Analysis | Developed categories through grouping codes into broader structures. Identified themes by organising categories into overarching patterns. Then interpreted data within the context of themes, helping to uncover underlying meanings and implications. |
| 5 | Verification and Trustworthiness | The data, codes and themes were occasionally revisited, and compared with the recordings to ascertain context. This also helped to make inferences from tonations. Also maintained multiple data versions at every stage of processing to ensure that nothing was “lost in translation”. |
| 6 | Reporting | This final stage presents the finding in clear and organised format that includes text summaries, categorisations, tables, and some visualisations (e.g., word clouds and code themes) to aid understandability. |
| <ul style="list-style-type: none"> • <i>NOTE: The Content Analysis stages highlighted do not include the preparation and actual data collection stages, which are extensively covered in the methodology chapter.</i> • <i>The term “lost in translation” in 5 above, is used loosely to refer to the nuances, meanings, or subtle details of the original data that may be altered, overlooked, or misunderstood when the</i> | | |

data is interpreted, coded, or translated into another context.

Word Inclusion and Exclusion Criteria

The data consisted of a total word count of 50,706 complied using ATLAS.ti software. The data was from six focus group discussions with BCU and MUBS students and lecturers (Figure 43).

Figure 43: Indication of number of words per interview group



In conducting Content Analysis, the following word inclusion and exclusion criteria was followed to ensure that keywords, which serve as pivotal markers for identifying and interpreting essential concepts or ideas embedded within the data are extracted (Braun and Clarke, 2006; 2019) (Table 24).

Table 24: Inclusion and Exclusion Criteria

| Inclusion Criteria | Exclusion Criteria |
|---|---|
| <p>Relevance: Retained words or phrases pertinent to research objectives (Taylor, 2016).</p> <p>Frequency: Terms recurring frequently within the text were included, as they often signify prevalent themes or topics</p> | <p>Irrelevance: Terms like stop words and prepositions were excluded as they did not contribute meaningfully to the analysis (Green, 2017). The researcher's questions were excluded.</p> <p>Ambiguity: Ambiguous terms were omitted to prevent inconsistent interpretations (Davis, 2015).</p> |

| | |
|--|--|
| <p>(Robinson, 2018).</p> <p>Variability: Words exhibiting diversity in usage were incorporated to capture a range of perspectives (Harris, 2019).</p> <p>Contextual Meaning: Words conveying specific meanings within the content's context were retained (White, 2020).</p> | <p>Technical Terms: Jargon or terms not central to the content were excluded for better accessibility (Wilson, 2018).</p> <p>Redundancy: Redundant or repetitive terms were excluded in thematic analysis to avoid distorting the results (Thompson, 2020). Also as already addressed in the Frequency Analysis section of Content Analysis.</p> |
| <p><i>Note: Following the application of the above word inclusion and exclusion criteria, 50,706 words remained for analysis (Refer to Appendix 9.17 for a comprehensive list of all words analysed).</i></p> | |

5.3.2.1 FINDINGS FROM WORD FREQUENCY ANALYSIS

As an initial step in the qualitative data analysis, Word Frequency Analysis was conducted to identify the most commonly occurring terms within the dataset. This method provided a foundational understanding of the dominant themes emerging from both student and lecturer discussions. By quantifying word occurrences, the analysis not only highlighted key areas of emphasis but also revealed differences in the language used by students and lecturers when discussing entrepreneurship skills, education methods, and ecosystems.

Table 25 presents the Top 30 most frequently used words, ranked according to their total occurrences across both student and lecturer datasets (a comprehensive list of all the words is available in Appendix 9.17 B). The analysis captures both the absolute frequency of each term and its percentage relative to the total word count for each group. Additionally, the table provides a comparative breakdown, showing how often each word was used by lecturers versus students, and the percentage difference in their usage.

A notable feature of this analysis is the inclusion of filler words such as “hmm”, which were retained to preserve the full communicative context. This ensures a more nuanced interpretation of the conversational dynamics within the dataset. Beyond simple frequency counts, the variation in word usage between students and lecturers offers deeper insight into the different emphases, concerns, and perspectives held by each group. These findings serve as a precursor to more detailed thematic analysis, where the meanings and implications behind these frequently used words are further explored.

Table 25: Top 30 words, based on combined number of occurrences in both the student and lecturer data. (Full list in Appendix 9.17B).

| Word | Total No of Occurrences | Total %ge | Lecturer No of Occurrences | Lecturer %ge | Student No of Occurrences | Student %ge | Difference in %ge of Usage |
|------------------|-------------------------|-----------|----------------------------|--------------|---------------------------|-------------|----------------------------|
| skill | 645 | 2.87% | 340 | 2.66% | 305 | 3.44% | -0.78% |
| but | 472 | 2.10% | 289 | 2.26% | 183 | 2.07% | 0.19% |
| with | 472 | 2.10% | 284 | 2.22% | 188 | 2.12% | 0.10% |
| like | 452 | 2.01% | 158 | 1.24% | 294 | 3.32% | -2.08% |
| because | 449 | 2.00% | 242 | 1.89% | 207 | 2.34% | -0.45% |
| Entrepreneurship | 414 | 1.84% | 230 | 1.80% | 184 | 2.08% | -0.28% |
| Uhm | 356 | 1.58% | 245 | 1.92% | 111 | 1.25% | 0.66% |
| can | 326 | 1.45% | 157 | 1.23% | 169 | 1.91% | -0.68% |
| business | 315 | 1.40% | 131 | 1.03% | 184 | 2.08% | -1.05% |
| say | 307 | 1.36% | 196 | 1.53% | 111 | 1.25% | 0.28% |
| these | 305 | 1.36% | 198 | 1.55% | 107 | 1.21% | 0.34% |
| lecturer | 298 | 1.32% | 292 | 2.28% | 0 | 0.00% | 2.28% |
| curricular | 294 | 1.31% | 151 | 1.18% | 143 | 1.61% | -0.43% |
| from | 284 | 1.26% | 136 | 1.06% | 148 | 1.67% | -0.61% |
| your | 281 | 1.25% | 120 | 0.94% | 161 | 1.82% | -0.88% |
| about | 271 | 1.20% | 150 | 1.17% | 121 | 1.37% | -0.19% |
| there | 257 | 1.14% | 182 | 1.42% | 75 | 0.85% | 0.58% |
| okay | 248 | 1.10% | 158 | 1.24% | 90 | 1.02% | 0.22% |
| come | 244 | 1.08% | 148 | 1.16% | 96 | 1.08% | 0.07% |
| more | 227 | 1.01% | 98 | 0.77% | 129 | 1.46% | -0.69% |
| other | 225 | 1.00% | 138 | 1.08% | 87 | 0.98% | 0.10% |
| would | 223 | 0.99% | 117 | 0.92% | 106 | 1.20% | -0.28% |
| just | 218 | 0.97% | 115 | 0.90% | 103 | 1.16% | -0.26% |
| entrepreneur | 217 | 0.96% | 115 | 0.90% | 102 | 1.15% | -0.25% |
| know | 216 | 0.96% | 131 | 1.03% | 85 | 0.96% | 0.06% |
| yes | 214 | 0.95% | 131 | 1.03% | 83 | 0.94% | 0.09% |
| all | 210 | 0.93% | 124 | 0.97% | 86 | 0.97% | 0.00% |
| then | 207 | 0.92% | 128 | 1.00% | 79 | 0.89% | 0.11% |
| people | 205 | 0.91% | 86 | 0.67% | 119 | 1.34% | -0.67% |
| thing | 204 | 0.91% | 123 | 0.96% | 81 | 0.92% | 0.05% |

Of the top 30 words (Table 25), this section focuses on the significance of eleven deemed directly related to the research.

- a) **Skill:** The word "skill" appeared 645 times (2.87% in total), with lecturers using it 340 times (2.66%) and students 305 times (3.44%) - with a slight difference of 0.78%. This

high frequency suggests a strong appreciation and focus on competencies in EE by both students and lecturers.

- b) Like:** The word “Like” appeared 452 times (2.01% in total). It was used more frequently by students (294 times - 3.32%), compared to lecturers who used it 158 times (1.24%), likely in a conversational context to express preferences, comparisons, or examples. Its higher usage could also imply a more casual or less formal approach in student discussions, highlighting a difference in communication style between students and lecturers. It might also denote the love for particular teaching and learning preferences.
- c) Because:** The word "because" is often used to provide reasons or explanations and appeared 449 times (2.00% total). Its frequent use by both groups, with lecturers using it 242 times (1.89%) and students 207 times (2.34%) suggests a need to justify statements or opinions, reflecting a critical thinking approach in discussions about entrepreneurship education and ecosystem dynamics.
- d) Entrepreneurship:** The term "entrepreneurship" was central to the study and appeared 414 times (1.84%) in total, indicating its fundamental importance in the discussions. It is used frequently by both groups, with lecturers using it 230 times compared to students who used it 184 times. However, the 184 times students used it, was more in percentage terms (2.08%) than the lecturers’ usage (1.80%) reflecting a focus on the subject matter across both groups.
- e) Entrepreneur:** The word "entrepreneur" appeared 217 times (0.96% total), with lecturers using it 115 times (0.90%) and students 102 times (1.15%). Although slightly more commonly used by students, possibly reflecting their aspirational identity or role models, the difference is not significant. It also highlights the personalisation of EE with reference to the person or “entrepreneur” as a key and central player.
- f) Business:** The higher usage of the word "business" by students (184 times - 2.08%) compared to lecturers (131 times - 1.03%) may reflect their focus on understanding business practices and principles. Its high appearance of 315 times (1.40% in total)

could suggest familiarity, particularly by students, of the with broader business contexts.

- g) **Lecturer:** The word "lecturer" is primarily used by lecturers themselves, likely in reference to their role or in discussing pedagogical approaches. It appears 298 times (1.32% total), with lecturers using it 292 times (2.28%) and students not using it at all. The absence of this word in student discussions could suggest a focus on content rather than on the instructors.
- h) **Curricular:** The frequent mention of "curricular" indicates discussions around the structure and content of educational programmes. It appeared 294 times (1.31% total), with lecturers using it 151 times (1.18%) and students 143 times (1.61%). The balanced use between both groups highlights its importance in shaping EE.
- i) **Know:** The use of "know", which appeared 216 times (0.96% total), is evenly split, indicating a mutual emphasis on knowledge acquisition. Lecturers used it 131 times (1.03%) and students 85 times (0.96%). This suggests both groups are focused on understanding and knowledge as foundational to EE.
- j) **People:** The word "people" appeared 205 times (0.91% total), with lecturers using it 86 times (0.67%) and students 119 times (1.34%). Its high usage by students might suggest a focus on social aspects or networking in entrepreneurship. It highlights the importance students place on interpersonal relationships and social aspects in entrepreneurship.

k) Lecturer-Dominant Words:

Below are some key words that were predominantly used by lecturers, with some of these not being used by students at all.

- i. **"Lecturer" (2.28% difference):** Lecturers frequently referred to themselves or their role, while students do not use this term at all.
- ii. **"Teach" (0.81% difference):** The term "teach" was used significantly more by lecturers, emphasising their role in delivering education.

- iii. **"kind" (0.70% difference):** Lecturers use "kind" more often, mainly in explanations or descriptions, whereas students used it less.
- iv. **"uhm" (0.66% difference):** Lecturers had a higher usage of filler words like "uhm" indicating perhaps a more spontaneous or less structured speaking style.
- v. **"there" (0.58% difference):** Lecturers used the word "there" more, mainly in explanations or directional context.
- vi. **"almost" (0.56% difference):** Lecturers used "almost" more frequently, which may reflect a more nuanced way of expressing certainty or approximations.
- vii. **"our" (0.55% difference):** The use of "our" by lecturers highlights their tendency to include themselves in the collective teaching / learning process or educational ecosystem.
- viii. **"Skill" (0.78% difference):** The term "skill" is mentioned more frequently by lecturers, potentially suggesting a higher emphasis or concern regarding skill acquisition in their discourse compared to student.

Data Visualisation

To complement the word frequency analysis, word cloud images were generated using ATLAS.ti software to provide a visual representation of the most frequently occurring terms in the dataset. These word clouds offer an intuitive snapshot of key themes emerging from both student and lecturer discussions across the two institutions. While not inherently analytical, they serve as a valuable exploratory tool, helping to identify dominant words and recurring patterns within the data.

Given the constraints imposed by COVID-19, two separate focus groups were conducted for BCU lecturers. To ensure a comprehensive visualisation, the word cloud presented for BCU lecturers (Figure 44) represent the merged data from both groups. The rest of the figures Figure 45, Figure 46,

Figure 47, and Figure 48 represent the most frequently used words, based on their combined occurrences from the following datasets respectively; MUBS Lecturers, BCU Students, MUBS Students, and the final focus group consisting of both MUBS and BCU students. These word clouds offer a comparative perspective on the language and focus areas of each group.

[illegible][illegible]

- i. **"Like" (2.08 % difference):** Students used "like" significantly more than lecturers, which may indicate a tendency towards more informal language or use of filler words.
- ii. **"Business" (1.05% difference):** Lecturers mentioned "business" more often, which may reflect a strong focus on business concepts in their teaching process.
- ii. **"Your" (0.88% difference):** The use of "your" was more common among students, possibly indicating a conversational tone or direct engagement in their responses.

Figure 46: Word Cloud for BCU Students



Figure 47: Word Cloud for MUBS' Students



Figure 48: Word Cloud for the final focus group consisting of both MUBS and BCU students



5.3.2.2 OBSERVATIONS FROM DEDUCTIVE QUALITATIVE CONTENT ANALYSIS (DQCA)

While the previous section employed Inductive Content Analysis to identify common words based on their frequency of occurrence, this section applies Deductive Qualitative Analysis to focus specifically on terms related to the core research objectives. Therefore, the analysis here centres on key themes associated with **Entrepreneurship Skills**, **Entrepreneurship Education**, and **Entrepreneurship Ecosystems**. This approach provides insights that are aligned with the study's primary areas of investigation. A comprehensive list of all the words is available in Appendix 9.17 B.

1. ENTREPRENEURSHIP SKILLS

The word "Entrepreneurship" appears 414 times (Table 25), "business" 315 times, "Entrepreneur" 217 times and "entrepreneurial" 109 times, indicating familiarity with business-related aspects and concepts by students and lecturers at both institutions. At this stage of the analysis, however, the focus was on identifying key words associated with

entrepreneurship skills as outlined by the QAA. This section examines how frequently terms related to the QAA's seven defined entrepreneurship skills appeared in the data.

a) Creativity and Innovation:

Although not among the top 30 words (Table 25), "creativity" and "innovation" appeared 47 and 52 times, respectively - exclusively in lecturer discussions. Despite being asked about these skills, students did not use these terms. This suggests that while lecturers emphasise these concepts, they may not be as prominent or familiar in students' vocabulary within EE. It might also suggest a deficiency in the instructional content and methodologies employed to cultivate this trait in students.

b) Opportunity Recognition, Creation, and Evaluation:

Terms related to seizing opportunities, such as "opportunity" and "recognise" were observed in the dataset. However, while "opportunity" appears 86 times, "recognise", and "create" are mentioned less frequently, indicating a potential gap in focus on these specific aspects of the above entrepreneurship skillset. Since entrepreneurship involves the creation of new products, services, or processes, it is possible that lecturers prioritise teaching opportunity recognition over providing opportunities for students to create, as evidenced by the lower frequency of the term "create" compared to "recognise." Additionally, the absence of the term "evaluate" from the word list suggests a need to highlight analytical skills in EE.

c) Action and Reflection:

"Action" and "reflection," are mentioned 82 and 60 times, respectively, by both students and lecturers, suggesting that both groups acknowledge the importance of taking action and reflecting on experiences within the entrepreneurial process, and indicates a focus on critical thinking and reflective practices in EE. Additionally, the word "question" appears 182 times, suggesting a significant emphasis on fostering inquiry-based learning. However, these words did not appear in the top 30. So, they are included in the wider list in the appendices.

d) Decision Making Supported by Critical Analysis, Synthesis, and Judgment:

| | |
|--------------------------|--|
| Decision: 47 occurrences | Words related to decision making and critical analysis, such as "decision" and "critical analysis," were present in the dataset. |
| Critical: 7 occurrences | |

Analysis: 7 occurrences
Synthesis: 0 occurrences
Judgment: 0 occurrences

However, while "decision" appeared 47 times, "critical analysis" had a lower frequency, suggesting a potential gap in emphasis on this skill.

This observation was accentuated by the absence of words such as "synthesis" and "judgement" in the analysis for both students and lecturers.

e) Implementation of Ideas Through Leadership and Management:

The term "management" appeared a total of 67 times, with lecturers contributing nearly twice as much (43 occurrences) compared to students (24 occurrences). This indicates a potential disparity in the perception of the importance of management skills between students and lecturers, with lecturers seemingly placing a higher emphasis on it than students. Interestingly, the term "leadership" did not appear in the dataset at all, suggesting a possible misunderstanding or undervaluation of this aspect of the skillset by both students and lecturers.

f) Communication and Strategy Skills:

While "communication" appears 69 times, "strategy" has a frequency of 60 times, suggesting a slightly higher emphasis on communication skills, but not by a significant or big margin. However, while the word "communication" occurs in the lecturer data 44 times, almost double that in the student data which was at 25 times. In terms of percentage, the frequency is almost the same for both lecturers and students (0.34% vs 0.31% respectively). This suggests that both students and lecturers recognise the importance of effective communication and strategic thinking in entrepreneurship.

g) Digital and Data Skills:

While "digital" appears 57 times, "data" had no occurrence in the final data set, indicating a huge gap and potential lack of emphasis on data-related skills. This suggests that there might be a need to enhance the focus on data literacy and digital competencies within the entrepreneurial curriculum.

2. ENTREPRENEURSHIP EDUCATION

This section examines how frequently terms related EE pedagogy appeared in the data. A comprehensive list of all the words captured is available in Appendix 9.17 B.

a) Educational Terminology:

The frequency of "teach" and "teaching" suggests a strong emphasis on delivering educational content, especially within the formal curriculum. With "teach" mentioned 118 times and "teaching" 62 times, which underlines the centrality of instructional strategies at both universities. However, neither "teach" nor "teaching" appeared in the final student dataset.

Additionally, words like "Skill" "Creativity" and "Innovation" suggest discussions about fostering entrepreneurial skills and creativity among students. Particularly, the higher frequency of the word "skill" (645 occurrences) (Table 25) compared to terms like "curriculum" or "teach" suggests a strong emphasis on outcomes-driven approaches to skill development within EE, or merely the fact that entrepreneurship skills was a key part of the study.

b) Balance Between Curricular and Extracurricular

Both students and lecturers mention "curricular" more than "curriculum" reflecting a moderate degree of engagement with discussions surrounding formal educational frameworks. In fact, students did not mention "curriculum". Perhaps because it is a technical term familiar mainly to educators. However, the data showed a higher frequency of "curricular" compared to "extracurricular". "Curricular" was mentioned 294 times, the term "extracurricular" was mentioned 26 times, suggesting a predominant focus on formal academic structures or an emphasis on structured academic content by lecturers.

However, the presence of terms like "engage" and "extracurricular", especially in bigger word count by students (Appendix 9.17 B) indicates a recognition of the importance of activities beyond the traditional curriculum in enhancing student learning experiences.

c) Content Vs Teaching Methods: Student-Cantered Learning

The debate between content and teaching methods is highlighted by the differing use of terms related to student engagement and knowledge acquisition. Lecturers frequently used words like "Engage", "Group", "Question", "Reflect" and "Experience" which suggest a focus on practical, student-centered teaching techniques. The term "Engage," mentioned 28 times by lecturers but not at all by students, points to a potential disconnect. While lecturers aim to actively involve students in the learning process, this effort may not be fully recognised or valued by the students.

On the other hand, the term "know" appeared 216 times and was used almost equally by both lecturers and students, reflecting a shared emphasis on content and knowledge acquisition as fundamental to EE. However, the differences in language use highlight a tension between the importance of content and the methods used to teach it, suggesting a need for better alignment between educators' strategies and students' perceptions of engagement.

3. ENTREPRENEURSHIP ECOSYSTEM DOMAINS

This analysis focused on identifying key words linked to Isenberg's Domains of Entrepreneurship.

a) Policy:

The presence of terms such as "Policy" and "Government" in the dataset suggests discussions surrounding the influence of policies and governmental support on EE. However, while "Policy" emerges 52 times, reflecting conversations about the regulatory landscape's potential impact on entrepreneurial learning, it's exclusively found in the lecturer dataset. This observation suggests a potential disparity in the awareness or emphasis placed on policy related considerations between students and lecturers.

b) Support:

Regarding "support", which was mentioned 55 times, the relatively even distribution between student and lecturer datasets, at 0.26% and 0.25% respectively, may have two implications. On one hand, it might reflect lecturers' recognition of available resources and

assistance for entrepreneurs within the ecosystem. While students might interpret "support" more in the context of typical educational assistance as opposed to ecosystem support.

c) Finance:

The inclusion of terms like "Money" and "Finance" emphasises a keen interest in financial resources and investment opportunities within entrepreneurship discussions. However, akin to previous observations with terms like "Policy" and "Support", it's noteworthy that "Finance" appears exclusively in the final lecturer dataset and is missing in the final student data set. This highlights a clear gap in students' perception of and grasp of financial elements.

d) Culture:

From an entrepreneurship ecosystem perspective, terms like "Culture", "Society" and "Social" were prevalent in the dataset, appearing 65, 102 and 29 times, respectively. Interestingly, the word "Culture" was predominantly used by students, accounting for 65 occurrences (0.73%), whereas lecturers mentioned it 37 times, representing 0.29% of the words in the final lecturer dataset. This discrepancy suggests that discussions regarding how cultural and societal contexts influence entrepreneurship skills and EE are more pronounced among students compared to lecturers. Additionally, it's noteworthy that words "Society" and "Social" were solely mentioned by students, with no occurrences by lecturers. These findings might suggest differing perceptions between students and lecturers regarding the significance of cultural and societal influences on EE and entrepreneurship skills.

e) Markets:

The term "market" appeared 68 times in the analysis, with occurrences split evenly between lecturers and students, representing 28% and 36% of their respective groups. This relatively balanced frequency suggests that both lecturers and students do recognise the importance of market dynamics in the context of entrepreneurship.

f) Human Capital:

Although "human capital" or the terms "human" and "capital" were not specifically mentioned, the frequent use of the word "people" in the data suggests an acknowledgment of its importance in the broader ecosystem. "People" appeared 205 times, with lecturers mentioning it 119 times (0.67%) and students 86 times (1.34%). This emphasis by lecturers highlights the recognition of human capital's significance in the ecosystem. However, the higher usage by students may indicate their focus on social dynamics or networking, or the value they place on interpersonal relationships within entrepreneurship.

SUMMARY OF FINDINGS FROM CONTENT ANALYSIS

The content analysis phase provided a foundational understanding of the most frequently occurring words in the dataset, offering insights into how students and lecturers conceptualise and discuss entrepreneurial skills, education methods, and ecosystems. The word frequency analysis identified key terms that dominated discussions, revealing both commonalities and differences between the two groups. Notably, terms like "skill" (645 occurrences), "entrepreneurship" (414 occurrences), and "business" (315 occurrences) were highly prevalent, reflecting a shared emphasis on competency development and business understanding. However, differences emerged in language use, with students using words such as "like" (452 occurrences) more frequently, possibly indicating a conversational and exploratory approach, while lecturers frequently mentioned "curricular" and "teaching", suggesting a structured focus on formal education.

Further deductive qualitative content analysis delved into specific themes within entrepreneurship education (EE). The analysis revealed gaps in students' vocabulary and understanding of key entrepreneurship skills, with lecturers emphasising concepts such as creativity and innovation, while students demonstrated less familiarity with these terms. Similarly, terms related to decision-making and critical analysis were less prominent, suggesting potential weaknesses in developing higher-order thinking skills. Additionally, while both groups recognised the role of entrepreneurial action and reflection, there was a noticeable discrepancy in discussions around leadership and management, with "management" appearing 67 times, but "leadership" absent from the dataset, hinting at a potential undervaluation of leadership skills.

In examining entrepreneurship ecosystems, key terms related to policy, finance, and markets revealed distinct knowledge gaps. Lecturers frequently discussed "policy" (52 occurrences) and "finance", whereas these topics were notably absent from students' discussions, suggesting a limited awareness of regulatory and financial dimensions in entrepreneurship education. Conversely, students emphasised "culture" (65 occurrences) and "society" (102 occurrences) more than lecturers, indicating a stronger recognition of social and cultural influences on entrepreneurial development.

The findings from content analysis lay the groundwork for the next phase – thematic analysis – which moves beyond word frequencies to explore the deeper meanings, patterns, and relationships in the data. While the content analysis phase provided a quantitative perspective on language use, the upcoming thematic analysis will adopt a more interpretive and conceptual approach, examining the underlying themes and theoretical implications of the findings in greater depth.

5.3.3 FINDINGS FROM THEMATIC ANALYSIS

METHODOLOGICAL APPROACH

Phase two of the data analysis in this research adhered to Braun and Clarke's Thematic Analysis framework (2006; 2019), a widely recognised method for identifying, analysing, and reporting patterns within qualitative data. Thematic Analysis was particularly well-suited to this study due to its flexibility in capturing both predefined and emergent themes, thereby allowing for a comprehensive exploration of the research phenomenon. While the methodology chapter provides a more detailed discussion of this analytical approach, a summary of the key stages is outlined in Table 26.

Emergence and Refinement of Themes

A deductive analytical approach was initially employed, wherein the preliminary themes were aligned with the three pre-established research domains – Entrepreneurial Skills, Entrepreneurship Education Methods (EEMs), and Entrepreneurship Ecosystems – as outlined in Chapter 2, Section 2.5.1, and Figure 26. Respondent statements were categorised accordingly, providing an initial framework for thematic validation against the existing literature and conceptual model. However, in recognition of the complexity and dynamic nature of entrepreneurship education, an inductive analytical approach was also incorporated. This ensured that novel themes and insights emerging from the data were not excluded or constrained by pre-existing assumptions. The combined use of deductive and inductive reasoning facilitated both the exploration of the phenomenon and the development of new theoretical contributions (Parke, 1993; Hyde, 2000).

The analysis proceeded iteratively, following six key stages. After grouping codes into second-order themes, further refinement was conducted to ensure coherence, leading to the development of aggregate dimensions. Initially, these dimensions were organised around the original three research domains; however, some dimensions transcended the boundaries of a single domain. To reflect the holistic nature of the findings, an additional stage of synthesis was undertaken, where final themes were defined based on their broader conceptual significance rather than their alignment with pre-existing categories. This

reorganisation ensured that the final themes captured the essence of the data in a way that was both theoretically rigorous and reflective of participant experiences.

The final phase of analysis involved integrating thematic insights into a coherent narrative presentation, supported by illustrative participant quotations (Appendix 9.17.1). This not only provided empirical grounding for each theme but also enhanced the reader's understanding of how these themes manifested across different participant groups. Ultimately, this process culminated in the development of a revised conceptual framework, which is introduced in the concluding chapter.

Table 26: Stages of Thematic Analysis followed

| Stage No. | Stage Name | Details |
|-----------|---|--|
| 1 | Familiarisation with the data | This involved the researcher transcribing the data and taking the opportunity to immerse themselves in the data by reading and re-reading of the transcripts to become deeply familiar with the content. Key quotations were identified, summarised, and brief notes made to capture the researcher's initial understanding of the participants' observations. |
| 2 | Generating initial codes / 1st order concepts | Using Atlas Ti, and the above quotations as a guide points, the researcher then systematically coded interesting features across the entire dataset. Segments of data were labelled with codes that captured the essence of what was being discussed. |
| 3 | Identifying Broader Themes (2nd order themes) | 1 st order codes were clustered into broader 2 nd order themes based on recurring patterns and conceptual similarities. These themes provided a higher level of abstraction, reflecting commonalities across multiple data points and capturing key aspects of the participants' perspectives across the dataset. |
| 4 | Refining and Consolidating Themes | The 2 nd order themes were critically reviewed to ensure they accurately represented the data. Some themes were merged where overlaps existed, while others were refined for greater clarity. This process led to the formation of aggregate dimensions, which served similar to theoretical categories encapsulating broader conceptual areas. |
| 5 | Finalising and Defining Final / Core Themes | While the aggregate dimensions were initially aligned with the study's key research domains (Skills, Pedagogy, and Ecosystem), and given that certain dimensions spanned multiple domains, a more integrative approach was adopted – with final themes being restructured to provide a more holistic |

| | | |
|---|--|---|
| | | representation of the findings. This ensured the final themes captured the essence of the discussions without being restricted to predefined research categories or domains. |
| 6 | Synthesising Findings and Developing the Conceptual Framework | <p>This stage ensured that the themes were not only clearly articulated but also meaningfully connected to the research questions and objectives.</p> <p>The final analysis was then written up, integrating thematic insights with direct quotes from the data in order to provide evidence and illustrate the themes. The write-up offered a coherent narrative of the findings and helped to link the content back to the research questions and objectives.</p> <p>The process also facilitated the evolution and refinement of the study's conceptual framework, aligning the emergent insights with existing theoretical perspectives while allowing for a more nuanced understanding of the research phenomenon.</p> |

Presentation of Findings

Not all respondent quotations were included in the results section; rather, only the most relevant verbatim extracts – from both student and lecturer interviews – were incorporated to illustrate key insights. These quotations serve to contextualise and exemplify the themes while ensuring a rich, evidence-based representation of participant perspectives.

Given that the surveys established a baseline understanding of how students rated their entrepreneurial skills, the primary aim of the focus groups was to explore their deeper perceptions of entrepreneurial competencies, the effectiveness of various EEMs, and the role of external factors in shaping entrepreneurship education. To maintain consistency, the findings from thematic analysis are presented in alignment with the three primary research domains:

1. Entrepreneurial Skills
2. Entrepreneurship Education Methods (EEMs)
3. Entrepreneurship Ecosystems
4. Synthesis of Overarching Themes and Theoretical Implications

The next sections present the findings from each research domain, followed by a discussion of overarching themes, which integrates insights across all domains to provide a holistic understanding of the entrepreneurial learning experience.

5.3.3.1 ENTREPRENEURSHIP SKILLS

While the surveys asked students to self-assess the extent to which they perceived themselves as entrepreneurial, this section delves deeper into their perceptions of the concept of entrepreneurship itself, and their views on the various entrepreneurship skills as outlined by the QAA. Through thematic analysis, this section builds on the first research objective – to determine the extent to which students at the participating universities were entrepreneurial. To this end, the focus group discussions fostered a comprehensive dialogue on the concept of entrepreneurship and the participants' understanding of it, provided a platform for richer exploration of both students' and lecturers' ratings, and offered more nuanced insights than the survey could have achieved on its own.

1. PERCEIVED UNDERSTANDING OF ENTREPRENEURSHIP

Students and Lecturers held diverse perspectives on entrepreneurship, although a shared understanding emerged, as outlined below.

a) Entrepreneurship as Creativity and Innovation:

Students and lecturers were asked to provide their understanding of the meaning of entrepreneurship. Their responses imply that entrepreneurship entails Creativity and Innovation, leading to the description of entrepreneurship as the ability to use a variety of original methods to develop a new idea, create and build something from scratch (Table 27).

Table 27: Entrepreneurship as Creativity and Innovation

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|--|--|---|----------------------------------|--|
| | | ENTREPRENEURSHIP SKILLS | | | | | |
| | | Perceived Understanding of Entrepreneurship and Entrepreneurship Skills | | | | | |
| | | Creativity and Innovation | | | | | |
| 1 | Student 1A from MUBS | "...what I understand from it is that it is a process of creative disruption. Meaning that whenever someone gets the skills of entrepreneurship, the person can change the old-fashioned things into new." | "... it is a process of creative disruption..." | Entrepreneurship is seen as an innovative process where old methods are replaced with new, creative solutions. | Creative disruption, Innovation, Transformation | Creative and Innovative Thinking | The ability to use a variety original methods to develop a totally new idea, create and build something from nothing |
| 2 | Student 3A from MUBS | "... my understanding of entrepreneurship skills are the abilities, process, attitude of changing the old thing to a new way or coming up with a new thing like what we call innovations and creativity they are the key things or key skills of entrepreneurship." | "... the abilities, process, attitude of changing the old thing to a new way..." | Entrepreneurship involves abilities to innovate, transform old methods into new, and develop creative ideas. | Innovation, Creativity, Transformational skills | | |
| 3 | Student 4A from MUBS | "...for example, innovation can be a skill, so when we talk about entrepreneurship skills, those are some of the things to be aware of." | "...for example, innovation can be a skill, creativity can be a skill..." | Entrepreneurship skills vary and embody both innovation and creativity. | Innovation, Creativity | Variety | |

This understanding is reflected in the statements made by several participants, such as student No 3, from MUBS who described entrepreneurship skills as *“the abilities, process, attitude of changing the old thing to a new way or coming up with a new thing like what we call innovations and creativity they are the key things or key skills of entrepreneurship”*. (Quote No 2, Student 4A from MUBS).

b) Entrepreneurship as Leadership and Management:

Another understanding of entrepreneurship that emerged was that it requires more than just personal competencies or simply having an idea. Hence, Leadership and Management – or the ability to delegate and harness the strengths of others - was considered a vital component of entrepreneurship success by both students and lecturers. This emphasises that successful entrepreneurs do not need to master every skill, but they should possess the ability to identify, recruit, and collaborate with people who complement their abilities as highlighted by Student 1A from MUBS (Quote 4) and Lecturer 2 from BCU (Quote 5, Table 28)

Table 28: Entrepreneurship as Leadership and Management

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|---|--|--|-------------------------------------|---|
| | | ENTREPRENEURSHIP SKILLS | | | | | |
| | | Perceived Understanding of Entrepreneurship and Entrepreneurship Skills | | | | | |
| | | Leadership and Management | | | | | |
| 4 | Student 1A from MUBS | "... when you come up with an idea, if you don't implement it, it will not work, it will still remain like any untapped idea. Then through leadership and management, when you are an entrepreneur or you have come up with any idea, to materialise it, it will be through you as a leader because you are the one who is having the idea - you'll obviously be the leader, but you can still bring other people with whom you can work together because two heads are better than one." | "... when you come up with an idea, if you don't implement it, it will not work..." | While action is important, it highlights the importance of leadership and management in bringing others on board as you can't do it alone. | Leadership, Idea implementation, Collaboration | Leadership and Strategic Management | The ability to manage and delegate or to identify other individuals who can fill that gap |
| 5 | Lecturer 2 from BCU | "... so, actually, looking at this [entrepreneurship skills] list, the students don't have all these skills. I think you need to have elements of some of them ... so some of them I have been working with recently and they are very creative and innovative but then they are not very good at communication and strategy and they are the first to admit they can't stand in front of a camera... but that can't stop them from being entrepreneurial – James, he is a primary example he hires people that can do things better than him. So, I think as an entrepreneur that is probably a skill that you identify your weaknesses so that you can actually identify that I have got all of these and I'm not good at kind of decision making." | "... looking at this [entrepreneurship skills] list, the students don't have all these skills..." | Recognises the diversity of skills needed in entrepreneurship and the importance of self-awareness and delegation. | Skill diversity, Self-awareness, Delegation, Weakness identification | Adaptive Leadership | |

c) Entrepreneurship as Opportunity Recognition:

From the responses, entrepreneurship could also be understood as the ability to recognise and exploit market opportunities. This conclusion seems to be supported by Student 4A from MUBS (Quote 6 in Table 29) who emphasised that this ability enables an entrepreneur to see possibilities where others may not have, and to craft solutions that fulfil society's

unmet needs. Additionally, Student 1A from MUBS (see Quote 7) emphasised the strategic aspect of opportunity recognition noting that entrepreneurs must devise strategies to achieve their ideas in ways that satisfy customer needs. This approach suggests that opportunity recognition is not only about identifying gaps but also about developing a clear plan to exploit those opportunities effectively.

Table 29: Entrepreneurship as Opportunity Recognition

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|--|--|--|-------------------------------------|---|
| | | ENTREPRENEURSHIP SKILLS | | | | | |
| | | Perceived Understanding of Entrepreneurship and Entrepreneurship Skills | | | | | |
| | | Opportunity Recognition | | | | | |
| 6 | Student 4A from MUBS | "I understand entrepreneurship skills as skills that involve identifying of gaps in the business environment that are not satisfied, or untapped opportunities and coming up with products or services that can be able to fit those gaps and the needs of the customers or the society that needs them." | "I understand entrepreneurship skills as skills that involve identifying of gaps..." | Emphasises opportunity recognition and developing products/services to fill market gaps. | Opportunity recognition, Market needs, Product development | Opportunity Identification | The ability to recognise a problem and offer a solution |
| 7 | Student 1A from MUBS | "... meaning you have to lay down your strategies to see how you can achieve your idea in order to satisfy the needs of the customers." | "... meaning you have to lay down your strategies to see how you can achieve your idea..." | Stresses the importance of strategic planning to achieve business goals. | Strategic planning, Goal setting, Customer needs | Strategic Planning and Goal Setting | |

d) Entrepreneurship as Starting, Organising, and Sustaining a Business

Participants seemed to agree that entrepreneurship involves the ability and readiness to start, organise, and sustain a business. To do this an entrepreneur requires a broad range of skills that are essential for the initiation and ongoing success of a venture as elaborated by lecturer 3 from MUBS (Quote 9), and Student 3 from BCU (Quote 8, Table 30). Based on these views, entrepreneurship is not only about starting a business but also about having the capacity to grow and sustain it over time.

Table 30: Entrepreneurship as Starting, Organising, and Sustaining a Business

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|---|---|--|------------------------------|--|
| | | ENTREPRENEURSHIP SKILLS | | | | | |
| | | Perceived Understanding of Entrepreneurship and Entrepreneurship Skills | | | | | |
| | | Action | | | | | |
| 8 | Student 3 from BCU | "... my understanding of entrepreneurship is that it requires a multitude of skills that overlap to end up with a final successful entrepreneurship venture." | "... it requires a multitude of skills..." | Entrepreneurship requires a combination of overlapping skills to achieve success. | Skill Diversity | Integrated Skill Development | Ability and readiness, to start, organise and sustain a business |
| 9 | Lecturer 3 from MUBS | "... basically, these are abilities that do not only stop at helping someone to start but also to grow and expand. Compared to other skills like business skills, we are focusing on growth and expansion to be more specific... it is the entrepreneurs who can cause an expansion." | "... abilities that do not only stop at helping someone to start but also to grow..." | Highlights the focus on skills that support starting, but also business growth and expansion. | Growth skills, Expansion focus, Entrepreneurial growth | Growth and Expansion Focus | |

2. PERCEIVED VALUE OF QAA ENTREPRENEURSHIP SKILLS

In the previous section, participants' understanding of entrepreneurship captured some of the entrepreneurship skills as proposed by QAA. In particular, Creativity and innovation, Leadership and Management and Opportunity Recognition were considered as integral to entrepreneurship. However, the general consensus was that an entrepreneur requires multiple skillsets to succeed in entrepreneurship. A different skillset is required for starting a business, and another for sustaining it. In instances where an entrepreneur lacks any of these skills, delegation was identified as an invaluable alternative.

Out of the seven, the skills perceived as most valuable included communication and strategy skills, leadership and management, action and reflection, digital and data skills. This section discusses communication and strategy skills, action and reflection, digital and data skills as leadership and management was already covered in the previous section.

a) Perceived Value of Communication and Strategy Skills

Communication and Strategy Skills were appreciated by both students and lecturers as an important means to achieving one's personal and entrepreneurial growth objectives.

Table 31: Perceived Value of Communication and Strategy Skills

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|---|---|---|---------------------------------|---|
| | | ENTREPRENEURSHIP SKILLS | | | | | |
| | | Perceived Value of QAA Entrepreneurship Skills | | | | | |
| | | Communication and Strategy Skills: | | | | | |
| 14 | Student 3A from MUBS | "... so, from that point, entrepreneurs need to lay down the tools or the means of achieving their goals and they need to communicate those means to the stakeholders. For example, if it is a company, you are the CEO [and] you have laid down the strategies, you have to communicate them to the employees, to the shareholders - in that you work hand in hand to achieve the common goal." | "... entrepreneurs need to lay down the tools or the means of achieving their goals, and they need to communicate those means to the stakeholders." | Emphasises the role of communication in achieving organisational goals and stakeholder engagement. | Communication, Strategy communication, Stakeholder engagement | Strategic Communication | Communication is an important means to achieving ones' personal and entrepreneurial growth objectives, and that it is important to communicate effectively with various stakeholders in one's entrepreneurial journey |
| 15 | Lecturer 2 from MUBS | "...when someone is not in the business, when you look at the entrepreneurial process, you first ask yourself where is communication going to help in this? But after establishing your business that is when you will need communication skills to sustain that the growth of the business or the business itself. So, I think communication skills is not a trait because anyone, even if they are not an entrepreneur, can have good communication skills, but does that make them an entrepreneur?" | "...anyone, even if they are not an entrepreneur, can have good communication skills, but does that make them an entrepreneur?" | Argues that communication skills are not unique to entrepreneurs, but generally essential for personal and business growth. | Communication, Business growth, Skill differentiation | Role of Communication in Growth | |

This underscores the role of this skillset in entrepreneurship, particularly in engaging with various stakeholders and mobilising the necessary support throughout the entrepreneurial journey. Students, like Student 3A from MUBS (see Quote 14, Table 31) emphasised how entrepreneurs need to clearly lay out their strategies and effectively communicate them to various stakeholders.

While communication was acknowledged as an important skill, some lecturers argued that it is a general life skill rather than a specific entrepreneurship skill. Lecturer 2 from MUBS (see Quote 15) pointed out that communication is not unique to entrepreneurs and can be essential to anyone, regardless of their entrepreneurial status.

However, the discussion also brought out the differentiation between communication as an entrepreneurial skill and as a management skill. It was suggested that while effective communication is crucial for sustaining business growth, its strategic use is more aligned with management practices than purely entrepreneurial activities. Hence, understanding when and how to use communication effectively in the entrepreneurial process is key for business growth and sustainability.

b) Perceived Value of Digital Skills:

Digital skills emerged strongly during the discussions on the perceived value of entrepreneurship skills among both students and lecturers. There was a consensus that in the context of the ongoing digital revolution, digital literacy is indispensable for entrepreneurs. The shift from traditional to digital modes of business operations highlights the urgency for entrepreneurs to acquire and effectively utilise digital skills. Students, such as Student 3A from MUBS (see Quote 16), illustrated how digital skills are being leveraged to boost sales and enhance business operations through various digital platforms:

"I do fashions, I sell suits, dresses and others, so I have three different platforms; I have Facebook, I have WhatsApp and I'm planning to open up a website so, in this era without digital skills you cannot succeed in the business world because the world is moving from that analogue way of doing business to digital - meaning you can use your smartphone to access your client, your customer, your supplier and everybody or every stake holder in your business. Me I'm enjoying that skill because I've accessed it from MUBS so I'm using it to boost my sales, to boost my business so indeed it is needed or required in entrepreneurship".

This view aligns with the broader understanding that digital skills are crucial in the modern entrepreneurial landscape. Without these skills, entrepreneurs may struggle to adapt to the rapidly changing digital environment, making them less competitive and potentially obsolete, as argued by lecturer 7 of MUBS (Quote 19, Table 32).

- Note: One of the observations, whilst conducting focus groups at MUBS, was that the vast majority of students on campus actually practice one form of entrepreneurship or the other. Usually through regular student expos, which are organised by the entrepreneurship department, and informally within and outside of the university.

Table 32: Perceived Value of Digital Skills

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|---|----------------------|---|---|--|--|---|---|
| ENTREPRENEURSHIP SKILLS | | | | | | | |
| Perceived Value of QAA Entrepreneurship Skills | | | | | | | |
| Digital Skills | | | | | | | |
| 17 | Lecturer 5, MUBS | "... it would be a very vital skill and for entrepreneurs in Uganda. However, it's not yet a big deal in Uganda. What do I mean? I think we have seen taxify Phone App in Uganda, and still if I went to the market to buy matooke (bananas) and I'm supposed to pay using mobile money (MTN Mobile Money), there is a higher likelihood I would come out of the market without the matooke (bananas). So, what does that mean? It means that business businesses in Uganda are still thriving without necessarily using technology... maybe some things have not yet been appreciated by the customers and since we are customer driven at times, we just go with what the customer wants and so maybe in the next ten years we can think about it but for now, [not that much]." | "...it's not yet a big deal in Uganda. What do I mean? I think we have seen taxify Phone App in Uganda, and still if I went to the market to buy matooke and I'm supposed to pay using mobile money, there is a higher likelihood I would come out of the market without the matooke" | Discusses the limited need and application of digital skills and technology, given the state of Uganda's digital landscape | Digital skill adoption, Customer-driven, regional adaptation | Digital Competency Challenges | Digital skills are invaluable. Any entrepreneur without digital skills will soon be rendered irrelevant |
| 18 | Lecturer 7, MUBS | "It would be good but given the [ICT] infrastructure in Uganda, the knowledge adoption and the resources, it is lacking. That is why you normally see most of the entrepreneurs are just necessity entrepreneurs because they cannot incorporate in their businesses computer usage, [and] the bandwidth connectivity of internet is also still a challenge, otherwise it would have been [a key skill] because it makes the business grow very fast and actually right now if you can see in the books of Jumia, Safe Boda, Uber, you can see that they have really been able to move [and] to compete with companies that have existed for the last twenty years because they have hooked into that digital element, and their revenues are therefore high. Therefore, in the context of Uganda, we don't have the infrastructure [so] it is really a challenge. And I think for UK, where you've been, you really see that now people are taking [digital skills] to another level." | "... given the [ICT] infrastructure in Uganda, the knowledge adoption and the resources, it is lacking ... and I think for UK, where you've been, you really see that now people are taking [digital skills] to another level" | Highlights the challenges of digital infrastructure and knowledge adoption in Uganda compared to more developed regions like the UK. | Digital infrastructure, Digital Disparity, Necessity entrepreneurship, Knowledge gap | Digital Infrastructure and Knowledge Gaps | |
| 19 | Lecturer 7, MUBS | "There is a lot of obsolescence so every day if you do not think in the digital insight, you're almost irrelevant." | "There is a lot of obsolescence so every day if you do not think in the digital insight, you're almost irrelevant." | Stresses the importance of digital skills to remain relevant in the modern business world. | Digital obsolescence, Relevance, Technological adaptation | | |

Despite the recognition of the importance of digital skills, lecturers, particularly from Uganda, were unenthused by the urgency of digital skills. Their incredulity emanates from notable constraints such as inadequate ICT infrastructure and limited access to high-speed internet, which hinder the widespread adoption of digital skills among entrepreneurs.

While countries like the UK are predominantly using 5G technology, in Uganda, the usage of 2G technology remains prevalent, particularly in rural areas and regions due to limited infrastructure and cost of handsets and data (UCC, 2024). Indeed, most of the general

population still uses non-sophisticated digital tools that rely on text based or GSM technology. Lecturers, such as Lecturer 5 (Quote 17, Table 32), argued that this creates several challenges in adopting digital skills. This was further elaborated by Lecturer 7 (Quote 18, Table 32) who highlighted the disparities in digital infrastructure and knowledge adoption between Uganda and more developed countries such as the UK.

Lecturers emphasised that staying current with digital trends is essential for maintaining relevance in the modern business world. As noted by Lecturer 7 (Quote 19, Table 32), there is a high rate of technological obsolescence, and entrepreneurs who fail to incorporate digital insights risk becoming irrelevant. This reinforces the idea that digital skills are not just optional but a critical component for success in today's entrepreneurial ventures.

c) Perceived Value of Action and Reflection:

The concept of **Reflection**, as highlighted in the aggregate dimension of *Self-Efficacy and the Ability for Entrepreneurs to Identify Their Strengths and Weaknesses and Find Solutions to Any Existing Barriers* was acknowledged as a key entrepreneurship skill by both students and lecturers. According to Lecturer 1 from BCU, reflection involves a critical process of self-assessment and learning from past experiences, which is essential for personal growth and entrepreneurial development (Quote 10, Table 33). Similarly, students highlighted the role of reflection in identifying personal strengths and weaknesses by evaluating past successes and failures - emphasising the continuous learning aspect of entrepreneurship, saying: *“Action and reflection are a skill in that helps the entrepreneur to identify their strengths or weaknesses ... by looking back at the failures and the successes and make corrective measures to come up with and make the project well”* (Student 4A, MUBS, Quote 11, Table 33).

Lecturer 1 from MUBS also emphasised the importance of self-efficacy, especially in the context of entrepreneurship, where individuals often work independently (see Quote 10). This suggests that believing in one's ability to execute and persevere is vital for overcoming the challenges that come with starting and managing a new business.

Lecturer 2 from MUBS (Quote 13, Table 33) discussed the integration of action and reflection in the decision-making process. This approach involves careful consideration and environmental scanning before making business decisions. The lecturer's insight suggests

that reflection is not just a passive process but an active one that plays a crucial role in making informed, strategic decisions.

Table 33: Perceived Value of Action and Reflection

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|--|--|--|--|---------------------------------------|--|
| | | ENTREPRENEURSHIP SKILLS | | | | | |
| | | Perceived Value of QAA Entrepreneurship Skills | | | | | |
| | | Reflection | | | | | |
| 10 | Lecturer 1 from BCU | "... a few [of our students] have gone through starting their own business and one of the things that I then had to do in terms of supporting them was self-efficacy – self efficacy as a skill - because a lot of the time you are spending a lot of the time in entrepreneurship alone, and it's a very, very individualised experience and therefore the self-efficacy of that individual to believe in their own ability to actually execute [is very important]." | "... a few [of our students] have gone through starting their own business..." | Emphasises the importance of self-efficacy in entrepreneurship, especially when working independently, which is most of the time, especially during the start phase. | Self-efficacy, Resilience, Independence | Reflective Practice and Self-Efficacy | Self Efficacy and the ability for entrepreneurs to identify their strengths and weaknesses and finding solutions to any existing barriers. |
| 11 | Student 4A from MUBS | "Action and reflection are a skill in that helps the entrepreneur to identify their strengths or weaknesses ... by looking back at the failures and the successes and make corrective measures to come up with and make the project well." | "Action and reflection are a skill that helps the entrepreneur to identify their strengths or weaknesses..." | Highlights the importance of reflection and learning from past experiences in entrepreneurship. | Reflective practice, Self-assessment, Learning from experience | | |
| 12 | Student 3A from BCU | "...again, the reflection part is really good so you can go back and say oh I can do this but or yeah I can change this attribute I feel like the reflection makes people get to where they want to be entrepreneur so yeah that's it." | "...again, the reflection part is really good so you can go back and say..." | Suggests that reflection is crucial for personal and entrepreneurial growth. | Reflection, Personal growth, Adaptive learning | | |
| 13 | Lecturer 2 from MUBS | "... maybe also to add on action you know as we say that entrepreneurs are decision makers, but they are not just decision makers, they make decisions that are well calculated and informed. I think those decisions do not just come out of the blue. They come out of first scanning the environment and you reflect about what you are going to decide. So, I think that action and reflection is integrated into decision making." | "... maybe also to add on action you know as we say that entrepreneurs are decision makers..." | Discusses the integration of action and reflection in informed decision-making in entrepreneurship. | Decision-making, Reflection, Environmental scanning | | |

3. EMERGENCE OF NON-QAA ENTREPRENEURSHIP SKILLS

While the research initially sought to explore specific entrepreneurship skills as suggested by the QAA, risk taking and networking emerged as additional entrepreneurship skills.

a) Risk Taking:

The ability to take risks emerged as a critical entrepreneurship skill, especially in navigating the unpredictable nature of entrepreneurial ventures. Students emphasised that taking risks is fundamental to entrepreneurship. This perspective highlights that beyond theoretical knowledge, there is a need for practical action and a willingness to engage with uncertainty. According to Student 3A from BCU, entrepreneurship involves "*just going out and actually doing*", underscoring a mindset that encourages experimentation and learning through experience, adding that:

"... the element of like taking risks ... you know ... just going out and actually doing ... carrying out your idea... yeah... that, I feel like that needs to be number one thing people need to know about entrepreneurship" (Quote 20, Table 34).

Lecturers reinforced the importance of risk-taking by adding elements such as **Tenacity** and **Resilience**. Lecturer 2 from BCU described tenacity as a vital trait that extends beyond passion. It involves a sustained commitment to pursuing business goals despite facing failures or setbacks. The lecturer emphasised that this resilience is essential because not all strategies or pitches succeed, requiring entrepreneurs to remain resourceful and adaptable:

"...you know for me, and certainly my own experience, as an entrepreneur, you have to have a level of tenacity - it has to be there - not only the passion - tenacity goes beyond the passion and resilience ... because you know not every strategy you execute is going to be successful, not every time you pitch for some resources, you are going to get them as expected – so, resilience, tenacity, also resourcefulness" (Quote 21).

Table 34: Some of The Quotes Relating to Risk Taking

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|--|---|---------------------------------------|--|---|
| | | ENTREPRENEURSHIP SKILLS | | | | | |
| | | Non-QAA Entrepreneurship Skills | | | | | |
| | | Risk Taking | | | | | |
| 20 | Student 3A from BCU | "... the element of like taking risks ... you know ... just going out and actually doing ... carrying out your idea... yeah... that, I feel like that needs to be number one thing people need to know about entrepreneurship" | "... taking risks ... just going out and actually doing ... carrying out your idea" | Highlights the importance of risk-taking as a fundamental aspect of entrepreneurship. | Risk-taking, Action orientation | Risk-Taking and Action | Entrepreneurship is about the unknown, and the tenacity to find a way to keep going, regardless |
| 21 | Lecturer 2, BCU | "...you know for me, and certainly my own experience, as an entrepreneur, you have to have a level of tenacity it has to be there - not only the passion - tenacity goes beyond the passion and resilience ... because you know not every strategy you execute is going to be successful, not every time you pitch for some resources, you are going to get them as expected – so, resilience, tenacity, also resourcefulness." | "... you have to have a level of tenacity ... not only the passion - tenacity goes beyond the passion and resilience..." | Emphasises the necessity of passion, tenacity, resilience, and the resourcefulness to keep going. | Tenacity, Resilience, Resourcefulness | Resilience and Tenacity as sub components of Risk Taking | |

The aggregate dimension drawn from these discussions is that entrepreneurship inherently involves navigating the unknown, with a constant need to adapt, learn, and persevere. The combination of risk-taking, tenacity, and resilience equips entrepreneurs to handle the challenges and uncertainties that come with building and sustaining a business. Thus, while risk-taking was not initially highlighted in the QAA list of entrepreneurship skills, both students and lecturers agree that these skills are indispensable for entrepreneurial success, thus warranting special attention and focus.

b) Networking

Both students and lecturers highlighted Networking as an essential skill that helps entrepreneurs to "*connect the dots*" between their ideas and other players in the wider entrepreneurship ecosystem. Specifically, students recognised networking as a vital tool for connecting with other entrepreneurs, sharing ideas, and gaining support to enhance their business ventures. For example, Student 5A from MUBS noted that while they may have innovative ideas, the lack of effective networking could impede the implementation and growth of these ideas. The student emphasised that networking allows them to connect with people who can boost their entrepreneurial endeavours:

"... through networking, one is able to meet other entrepreneurs. Take Uganda [for instance], though we have the ideas, we are not yet perfect at implementing [them] so we need a lot of networking in order to in order to find people that can help us boost our entrepreneurship" (Quote 22, Table 35).

Table 35: Some of The Quotes About Networking

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|---|--|--|--|--|
| | | ENTREPRENEURSHIP SKILLS | | | | | |
| | | Non-QAA Entrepreneurship Skills | | | | | |
| | | Networking | | | | | |
| 22 | Student 5A from MUBS | "... through networking, one is able to meet other entrepreneurs. Take Uganda [for instance], though we have the ideas, we are not yet perfect at implementing [them] so we need a lot of networking in order to find people that can help us boost our entrepreneurship." | "... through networking, one is able to meet other entrepreneurs..." | Highlights the value of networking for improving chances of business growth. | Networking, Collaboration, Skill improvement | Networking for growth | |
| 23 | Lecturer 3B from BCU | "... I can say yes, the external factors are gonna happen uncontrollably they are gonna happen whether we come here or not but I think as a university we've got to help the students say for example with the networks if you are kind of in a situation where you're never go out and meet people in different works it's our role to actually put them in those networks say to network events get them to make sure they are not limited in the first they are building nice networks so they kind of almost we kind of helping them come make up networks they have wanted before and they oversee with things like what's happening at home with culture you can't change what's happening at home but we will hopefully empower them and educate them to enable them to kind of evidence skills to kind of do things..." | "... external factors are gonna happen uncontrollably ... as a university we've got to help the students ... if you are ... in a situation where you never go out and meet people in different works, it's our role to actually put them in those networks" | Discusses the importance of creating networking opportunities for students and preparing them to adapt to external factors, and the role of universities in facilitating these networks. | Networking opportunities, External factors, Adaptability, University Support | Networking and Adaptability, Institutional Support | The ability connect the dots, and university's role in helping students to do so |

Lecturers also emphasised the importance of networking, not just as an individual, but also as a strategic skill, facilitated by HEIs. Lecturer 3B from BCU (Quote 23, Table 35) discussed the role of universities in helping students to build networks. The lecturer stressed that universities should actively create spaces and events where students can meet professionals from different fields, thus building strong, supportive networks that can empower them in their entrepreneurial journeys. The lecturer also pointed out that universities need to

educate students to leverage networks even in environments where external factors may pose challenges. This emphasis on networking demonstrates its role in fostering collaboration.

4. SKILLS MISMATCH - UNIVERSITY QUALIFICATIONS VERSUS EMPLOYER EXPECTATIONS

The study identified a mismatch between the skills that university students acquire during their studies, and those that employers require. This was particularly prominent in Uganda where, notwithstanding MUBS lecturers acknowledging the unique skills of their students, Lecturer 1 from MUBS (see Quote 30, Table 36) highlights that these students represent only a small fraction of the broader graduate population in Uganda. The lecturer noted that while MUBS graduates are considered relatively employable, the general employability rate for university graduates in Uganda remains low, indicating broader systemic issues in the quality of higher education and its alignment with labour market demands.

Table 36: Quotes About the Skills Mismatch

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|--|----------------------|--|--|--|--|--|--|
| Skills Mismatch - University Qualifications Versus Employer Expectations | | | | | | | |
| 28 | Lecturer 5, MUBS | "Right now, we have a bachelors' degree in real-estate management. But it really takes long to before they are credited by the National Council for Higher Education. So, to me, I just feel there's a lot of bureaucratic tendencies - and because of that, we have some mismatches. Then, a few people are involved in decision making. For example, a course can be very good but since MUBS is required to go to MUK to the senate and then they discuss, sometimes ... a good course is dropped not because it is not necessarily irrelevant to the market, but because the academicians think so." | ... there's a lot of bureaucratic tendencies... because of that, we have some mismatches... few people are involved in decision making." | Criticises bureaucratic decision-making processes leading to a mismatch between university courses and market needs. | Bureaucracy, Course relevance, Market alignment | Policy and Market Misalignment | Skills Mismatch in Entrepreneurship Education, caused by bureaucracies in curriculum design and a superiority complex by academics at the universities |
| 29 | Lecturer 1, MUBS | "I feel what is causing mismatch, is the kind of education - the private system of education that was brought in Uganda. We have about 50 universities. Out of those 50 universities, around 43 are private universities so for them all they are looking out for is to churn out students and more students without necessarily emphasising skilling the Ugandans. There are only a few government universities - about 8 whose objective is different [from that of the private universities]. In fact, when you meet a student from Makerere University, Kyambogo you will not find those exaggerated grades, but you find they know what they are doing. But meet a student from [redacted] just rubbish." | "I feel what is causing mismatch, is the kind of education [offered by] the private system of education that was brought in Uganda." | Critiques the private education system in Uganda for prioritising quantity over quality, leading to skills mismatch. | Education system critique, Skills mismatch, Quality vs. quantity | Quality vs. Quantity in Education; profit over quality or rigour | |
| 30 | Lecturer 1, MUBS | "... I agree with him. I have had a chance of supervising different graduates elsewhere ... not just here ... and I can tell you that the students of MUBS are unique. But MUBS students cannot represent the entire country. So, if they [the unemployment rate] is 20% then generally the employability skills are low. But as MUBS we have got reports that our students are very good. But if it is MUBS alone, then I think that percentage is like 15% or 10% of the graduates in Uganda." | "... I can tell you that the students of MUBS are unique. But MUBS students cannot represent the entire country... we have got reports that our students are very good." | Acknowledges the uniqueness of MUBS students but recognises broader employability and skills issues in Uganda. | Graduate employability, educational outcomes, National education quality | Superiority Complex, Employability and Educational Outcomes | |

This skills mismatch was attributed to several systemic issues within the education sector, particularly in Uganda. Lecturers from MUBS highlighted the bureaucratic nature of the education system as a key contributor to the skills mismatch. Lecturer 5 from MUBS (Quote 28, Table 36) described how the lengthy and bureaucratic processes involved in accrediting

university courses, such as the need for courses to be approved by multiple academic bodies, often result in delays and the dropping of potentially relevant courses. This decision-making process is criticised for being dominated by academic considerations rather than market needs, which results in a curriculum that does not align with the skills required by employers.

The second suggested cause of the skills mismatch was the privatisation of higher education in Uganda, which has prioritised profit over quality and academic rigour. This point was elaborated by Lecturer 1 from MUBS (Quote 29, Table 36) who criticised the private education system for focusing on maximising student numbers and revenue at the expense of educational quality. The emphasis on quantity over quality has led to an increase in the number of graduates, with many perceived to be "*half-baked*" and lacking the kind of practical skills required in the job market. This perception is particularly strong when comparing graduates from private universities to those from more established government institutions like Makerere University and Kyambogo University, where the education system was perceived to be more rigorous and aligned with market needs as explained by Lecturer 1 from MUBS below:

"I feel what is causing mismatch, is the kind of education - the private system of education that was brought in Uganda. We have about 50 universities. Out of those 50 universities, around 43 are private universities so for them all they are looking out for is to churn out students and more students without necessarily emphasising skilling the Ugandans. There are only a few government universities - about 8 whose objective is different [from that of the private universities]. In fact, when you meet a student from Makerere University, Kyambogo you will not find those exaggerated grades, but you find they know what they are doing. But meet a student from ... just rubbish (Quote 39, Table 36).

5. SUMMARY OF FOCUS GROUP FINDINGS ON ENTREPRENEURSHIP SKILLS

The focus group discussions revealed that participants understanding of entrepreneurship aligned with the study's adopted definitions, which emphasise the creation of "new" and "valuable offerings" (Venkataraman, 2019) and the generation of value through economic activities, as defined by the OECD (2008). Students recognised that entrepreneurship extends beyond merely starting a business and includes addressing societal needs, such as in social entrepreneurship.

Key skills such as creativity and innovation, leadership and management, and opportunity recognition were widely acknowledged as integral to entrepreneurship. However, participants emphasised that a diverse set of skills is essential for entrepreneurial success, with different skills needed for starting a business versus those necessary for sustaining it. For instance, delegation was seen as a crucial strategy when entrepreneurs lack certain skills.

Lastly, and perhaps more importantly, while the research initially focused on specific entrepreneurship skills as suggested by the QAA, two additional skills emerged as significant from the discussions – namely risk-taking and networking.

5.3.3.2 ENTREPRENEURSHIP EDUCATION METHODS

One of the study's key objectives was to assess the extent to which students' entrepreneurship skills were developed through the various entrepreneurship education methods at the participating universities. This section highlights the key themes related to entrepreneurship education that emerged from the focus group analysis.

1. EFFECTIVENESS OF ENTREPRENEURSHIP EDUCATION METHODS (EEM)

Several perceptions about the benefits and shortcomings of the three EEM i.e. Curricular, Extra-curricular and Co-curricular methods, emerged from the discussion with lecturers and students.

a) Curricular Education Methods

Lecturers and students alike recognised that curricular methods, typically delivered in a classroom setting, were more suitable for equipping students with foundational business management concepts and skills.

Table 37: Effectiveness of Curricular Education Methods

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|--|--|---|--|---|---|
| | | ENTREPRENEURSHIP EDUCATION METHODS | | | | | |
| | | Effectiveness of Entrepreneurial Education Methods (EEM) | | | | | |
| | | Curricular | | | | | |
| 31 | Student 2A | "I believe curricular is better because many people who came up with businesses without going to class, at the end of the day they avoid people who go to class. I'll give an example of myself during holidays I work for someone, I'm not a professional, but I do what I can to manage his business. He has everything but can't manage the business." | "I believe curricular is better because many people come up with businesses without going to class..." | Highlights the clash between practical experience and formal education | Curricular, practical experience, Informal learning, Business management | Experiential Learning vs curricular education | Curricular methods seen as an effective Entrepreneurship Education Method, particularly as they are deemed to made insulate students against industry business challenges |
| 32 | Student 5A | "Currently you know the world is changing and if now you don't follow the speed right now then you are outside the box... because even in the end you find those people with big business, those who have already started something they need to get in those people those who have already studied about entrepreneurship. So right now, it is very vital." | "Currently you know the world is changing and if now you don't follow the speed right now then you are outside the box..." | Stresses the need for adaptability and keeping pace with changes in the entrepreneurial landscape. | Adaptability, Continuous learning, Relevance | Adaptive Learning | |
| 33 | Student 4, MUBS | "Someone who has created a firm foundation of the curricular, it's easy to manoeuvre all those other hardships that can come in the long run." | "Someone who has created a firm foundation of the curricular, it's easy to manoeuvre all those other hardships..." | Argues that a strong curricular foundation can help navigate future challenges in entrepreneurship. | Curricular foundation, Skill resilience, Problem-solving | Foundational Knowledge and Resilience | |

They believed that formal education provides a structured environment where essential skills such as business management and problem-solving are taught. For instance, Student 2A from MUBS expressed the view that formal education offers significant advantages, even for those who initially started their businesses without formal education. Students acknowledged that, at some point, even self-taught or "illiterate" entrepreneurs find themselves needing the skills that are typically taught in a classroom setting.

"I believe curricular is better because many people who came up with businesses without going to class, at the end of the day they avoid people who go to class. I'll give an example of myself during holidays I work for someone, I'm not a professional, but I do what I can to manage his business. He has everything but can't manage the business" (Quote 31, Table 37).

This point was further emphasised by student 5A from MUBS who noted that even those with established businesses eventually seek the help of those who have studied entrepreneurship. Student 4 from MUBS (Quote 33, Table 37) highlighted that those who have a solid grounding in formal education find it easier to navigate the hardships that come with running a business.

b) Extra-Curricular Education Methods

The effectiveness of extra-curricular methods in EE was highly regarded by both students and lecturers. This approach, which includes activities that are typically delivered outside of classroom environment, was associated with several key benefits, such as promoting practical and hands-on learning experiences that were deemed crucial for developing entrepreneurial skills and in promoting lifelong learning. Student 5A from MUBS critiqued the overemphasis on theoretical knowledge taught in class, noting that while they learn about creativity and innovation theoretically, they often lack the practical skills to generate viable business ideas (Quote 34, Table 38,). This critique brings to the fore, a broader sentiment that extra-curricular activities provide a platform for students to apply the theoretical knowledge learnt in class to in real-world contexts, thus bridging the gap between theory and practice (*Student 5A from MUBS*).

Student 4 from the combined MUBS and BCU focus group explained that extra-curricular activities enable students to engage directly with entrepreneurial tasks and in the process learn from these experiences (Quote 35, Table 38). A similar view was echoed by Lecturer 4

from MUBS who recommended extra-curricular activities as a way of ensuring that students “remember and retain” what they learn because they are actively doing it themselves (Quote 36). The practical nature of these activities helps students to internalise lessons more effectively than through traditional theoretical approaches, which are often perceived as less engaging by students (Quote 36, Table 38).

Table 38: Effectiveness of Extra-Curricular Education Methods

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|---|--------------------------------|--|--|--|---|-------------------------|--|
| ENTREPRENEURSHIP EDUCATION METHODS | | | | | | | |
| Effectiveness of Entrepreneurial Education Methods (EEM) | | | | | | | |
| Extra-curricular | | | | | | | |
| 34 | Student 5A, MUBS | "... many people acquired knowledge and skills from class about entrepreneurship. They have been taught creativity and innovation in class, but they cannot generate any single viable idea. So, to me from outside the class, classwork from the world network, one can be a successful entrepreneur because we have seen many illiterate people being great entrepreneurs. Reason being, for them they can identify the idea, and they work upon it but for most of the people who have acquired knowledge from class, they just have the knowledge about the thing theoretically, but they don't have that practical part of it." | "... They have been taught creativity and innovation in class, but they cannot generate any single viable idea... they have the knowledge about the thing theoretically, but they don't have that practical part of it." | Critiques the overemphasis on theoretical knowledge in formal education, advocating for real-world application and learning by doing. | Extra-curricular, practical experience, Theoretical knowledge, Real-world application | Learning by Doing | Self-Driven, Experiential Learning & Practical Application of Skills |
| 35 | Student 4, BCU & MUBS Combined | "I think extracurricular is probably the most important because you're actually getting hands on and doing it and experiencing it for yourself, I think it's important to do a bit of research to know about your market and obviously see what the other business have done as well, but I think extracurricular is probably the most important because you can also get so much from just writing business plan - you actually need to experience it and try doing things." | "I think extracurricular is probably the most important because you're actually getting hands on and doing it..." | Highlights the significance of extracurricular activities in providing practical, hands-on learning experiences. | Hands-on experience, learning by doing | | |
| 36 | Lecturer 4, MUBS | "I would recommend extra-curricular because something you have done yourself you can never forget it actually. Because I also do the same in my class, I'd tell them go to the field and maybe you make some interviews and analyse people's businesses and see what they do and actually when they would come back to present you would see that someone has really gotten the skills. So, I think co-curricular and extra-curricular is better than curricular because if it is something practical you can easily remember than other theory things. I actually do not like theory so..." | "I would recommend extra-curricular because something you have done yourself you can never forget it actually..." | Supports extracurricular activities as effective methods for learning entrepreneurship skills through practical engagement and reflection. | Practical engagement, skill retention, field experience | | |
| 37 | Student 1A, MUBS | "I believe extra-curricular is the best because ... extra-curricular is something like you are not forced to do, it is your own demand that you want to pursue that thing and it is you who sets the target on how you are going to achieve it fully." | "I believe extra-curricular is the best because ... extra-curricular is something like you are not forced to do..." | Emphasises the self-driven nature of extracurricular activities, which enhances learning motivation and goal setting. | Self-driven learning, Goal setting, Motivation | Self-Motivated Learning | |

Additionally, extra-curricular methods have the potential to foster self-motivation and goal-setting among students. Student 1A from MUBS explained that extra-curricular activities are tasks that are not mandated by the curriculum but are pursued out of personal interest or motivation (Quote 37, Table 38). However, the explanations by both student 4 and lecturer 4 highlighted a potential misunderstanding among participants regarding the distinction between extra-curricular and co-curricular activities. While it is true that extra-curricular activities includes activities that are typically delivered outside of classroom environment, the views expressed by lecturer 4 in supporting extra-curricular methods (Quote 36, Table 38) seem to refer to co-curricular activities instead. This ambiguity in understanding the distinction between extra-curricular and Co-Curricular methods surfaced repeatedly across the focus groups. For instance, student 1A from MUBS described extra-curricular activities as those that facilitate self-directed learning, allowing students to set their own learning targets independent of the classroom environment:

“I believe extra-curricular is the best because ... extra-curricular is something like you are not forced to do, it is your own demand that you want to pursue that thing and it is you who sets the target on how you are going to achieve it fully” (Student 1A, MUBS).

This statement suggests that the student perceives extra-curricular activities as those completely detached from lecturer involvement or the university's administrative framework. Yet, extra-curricular education methods (EEM) include activities intentionally organised by lecturers outside the traditional classroom setting to equip students with entrepreneurship skills. These activities still involve some degree of lecturer participation but employ teaching methods that are not strictly curricular or entirely separate from the academic institution. This “dissonance” between students’ and lecturers’ perceptions of extra-curricular methods is an important issue that is addressed further in the discussion chapter. It highlights the need for clearer communication and understanding of educational methodologies within the university context.

While lecturers favoured extra-curricular methods for their ability to provide hands-on learning experiences and promote self-driven exploration, they expressed concerns regarding the practicalities of executing them, particularly in contexts like Uganda, where class sizes are large, and the lecturer-to-student ratio is high. This challenge was also acknowledged by some of the BCU lecturers, such as (BCU Lecturer 2, Focus Group 1) who said:

“... it’s almost impossible for us because if you have a class of 80 students, and they were all to come up with 80 different things that they are passionate about, if there’s a way to tap into doors in the delivery of entrepreneurship where everyone is doing something that they like that would be most effective, but will it be possible to do? ... would you be able to provide that support one-to-one? Because one student wants to do something on football, another [student] wants to do something on another topic, some of them will come up with areas you don’t even know anything about. You can’t be everywhere” (BCU Lecturer 2, Focus Group 1)

This statement underscores the inherent challenges of implementing extracurricular activities, especially in large classes, where the diversity of student interests and the need for individualised attention make it difficult to effectively manage and support each student’s unique learning journey. The lecturers' observations suggest that while

extracurricular methods offer substantial benefits, their preference by lecturers, and their practical application are hindered by institutional constraints, including high student numbers and limited faculty resources. This leaves lecturers to rely on more manageable educational methods, such as curricular and co-curricular, despite having a clear understanding of the potential advantages of extracurricular approaches in entrepreneurship education.

c) Co-curricular Education Methods

As highlighted in the preceding section, there was some confusion in the understanding of extra-curricular and co-curricular EEMs. After the researcher explained the distinction between the two methods, students reflected and considered co-curricular methods as essential for equipping them with a comprehensive understanding of entrepreneurship and allowing them to integrate theory with practice. Students and lecturers emphasised the importance of co-curricular activities in providing a balanced educational approach. For instance, Student 4A from MUBS highlighted the need to balance knowledge gained from the curriculum with practical skills obtained through extracurricular activities (Quote 38, Table 39).

Table 39: Effectiveness of Co-Curricular Education Methods

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|-----------------------------------|---|--|---|--|------------------------------------|---|
| | | ENTREPRENEURSHIP EDUCATION METHODS | | | | | |
| | | Effectiveness of Entrepreneurial Education Methods (EEM) | | | | | |
| | | Co-curricular | | | | | |
| 38 | Student 4A from MUBS | "... as an entrepreneur you need to balance - you need to have the knowledge, and you should also have the experience of the field. For example, we talk of a skill [such as] record keeping and bookkeeping skills, you can get them from curricular, from school, it helps you to know the profits because an entrepreneur's aim is to make profits, so you know how this business is run, and you cannot just know without picking some brief education or literacy from the curricular. And then for the extra-curricular, it helps in making these theories practical, for example in class I didn't get other skills using that field, so I go with co-curricular." | "... you need to have the knowledge, and you should also have the experience... for the extra-curricular, it helps in making these theories practical, for example in class I didn't get other skills using that field, so I go with co-curricular." | Discusses the need to balance theoretical knowledge from the curriculum with practical skills from extracurricular activities for comprehensive entrepreneurship education. | Knowledge and experience balance, Theoretical and practical skills, Comprehensive learning | Integrating Theory with Practice | Co-curricular is effective in integrating theory with practice. |
| 39 | Student 2 | "... for me I will go with co-curricular because in entrepreneurship, before someone goes in the field, they should have the knowledge or theory behind an idea so that by the time that person is in the field, he has fully parked knowledge about something - from price and then goes in the field and applies the knowledge being given. Here we run co-curricular where a lecture provides written information and guide on how we can explore opportunities in the world, and after the field we carry out what we call feasibility study analysis on the idea being submitted during class discussion." | "... for me I will go with co-curricular because in entrepreneurship, before someone goes in the field, they should have the knowledge or theory behind an idea..." | Advocates for co-curricular methods that combine theoretical preparation with practical application, such as feasibility studies. | Co-curricular learning, Feasibility study, Practical application | | |
| 40 | Lecturer 2 from BCU Group 2 | "... so, I agree with lecturer 3 (BCU) - you have to have curricular. For example, my module, they have learned a theory about planning using some frameworks. However, I feel that the co-curricular is what kind of sets them apart. So, in my module, I did this as a case study. That, according to me, it won't have the same impact [if it is just curricular] so actually having a live brief came in handy. They (colleagues) actually say they can't believe the level of analysis and evaluations that the students are doing and I think that kind of empowers the students ... and kind of reinforces what I'm saying [in class]." | "... you have to have curricular. For example, my module, they have learned a theory about planning using some frameworks. However, I feel that the co-curricular is what kind of sets them apart." | Supports the use of co-curricular activities, such as case studies and live briefs, to enhance learning outcomes beyond traditional curricular methods. | Co-curricular activities, Case studies, Enhanced learning outcomes | | |
| 41 | Lecturer 2, BCU | "I feel that for example what we do in the classroom in terms of teaching and giving frameworks ... a framework is not given in isolation... if you give a student a framework, [and] it's based on somebody's case study that failed, and somebody learned about it, I feel that that part is important because it is almost like it is helping us focus on things that could potentially be a problem for you in the future as a company. Now, I think the challenges is learning styles - for some people, just coming [to class] and sitting there without talking to somebody would not work for them." | "... a framework is not given in isolation... the challenges is learning styles - for some people, just coming [to class] and sitting there without talking to somebody would not work for them". | Emphasises the importance of using practical case studies in teaching to help students learn from real-life failures and understand potential business challenges. | Case studies, Learning from failure, Real-world challenges | | |
| 42 | Student 10, MUBS and BCU Combined | "Before I came to university, I studied entrepreneurship, but the way I got the information from the teachers was the way I left it. When I came to university, I remember during our entrepreneurship class, they told us to start our own business as coursework. We took the initiative of starting a business, and through selling sweets, we learned communication skills and creativity. At university, we got a chance to acquire more entrepreneurial skills." | "Before I came to university, I studied entrepreneurship... At university, we got a chance to acquire more entrepreneurial skills." | Describes the shift from theoretical learning to practical application in university, which enhanced entrepreneurial skills through hands-on projects. | Hands-on projects, Practical application, Skill acquisition | Transition from Theory to Practice | |

Student 2 from the combined BCU and MUBS focus groups also advocated for the co-curricular approach as a means of integrating theoretical learning with practical application of entrepreneurship concepts (Quote 39, Table 39). They pointed out that before venturing into the field, it is essential for students to have a solid theoretical foundation. To this extent, co-curricular activities were seen to play a critical role in bridging the gap between theory and practice. There was consensus that the co-curricular approach complements both extracurricular and curricular and promotes a holistic learning among the students. This was supported by Lecturer 2 from BCU Group 2 (Quote 40, Table 39) who discussed the effectiveness of using case studies and live briefs in their modules. This approach not only reinforces classroom learning but also empowers students to think critically and innovatively. The views from the students mirror those from lecturers from both institutions who noted that all the three EEM approaches depended on each other to create a continuum of entrepreneurial learning, starting from curricular, followed by co-curricular, and finally to extra-curricular

However, lecturers seemed to prefer co-curricular over extra-curricular activities not because they are more effective, but rather because of the logistical challenges associated with implementing the latter. Despite the recognised benefits of extra-curricular methods, lecturers felt that their implementation was cumbersome, particularly in highly populated classes, which is a significant issue in Uganda due to the high lecturer-to-student ratio. Consequently, lecturers often favoured co-curricular activities, which offer a more controlled and manageable environment for integrating practical applications with theoretical knowledge.

2. HOW CHOICE OF EEM IS DETERMINED BY UNIVERSITY POLICY

The choice of EEMs at BCU and MUBS, appears to be influenced by both policy frameworks and lecturer attitudes and preferences towards particular teaching methods. Lecturers at these institutions reported spending the majority of their time on curricular approaches to teaching entrepreneurship, with less emphasis on co-curricular and extracurricular methods. Although there were instances where they integrated co-curricular and extracurricular activities, such as involving industry partners like the Uganda Registration

Service Bureau (URSB) to provide hands-on experiences and linking students with companies for internships and training, these were few and far between.

Initially, it seemed that BCU and MUBS strictly adhered to a traditional university curriculum, favouring a curricular approach over more dynamic methods like co-curricular and extracurricular activities. However, upon closer examination, it became clear that lecturers had some degree of autonomy in choosing their teaching methods. Yet, despite this flexibility, most lecturers still defaulted to the curricular approach, often citing lack of resources. This reluctance to adopt diverse teaching methods appears to be rooted in the negative perceptions held by various stakeholders, particularly regarding extracurricular activities. Some lecturers cited scepticism from colleagues and industry professionals, who questioned whether the activities aligned more with vocational training rather than university-level education. This perspective is expressed by Lecturer 2, from MUBS (quote 43, Table 40).

Table 40: How Choice of EEM Is Determined by University Policy

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|-------------------------|--|--|---|---|---|--|
| | | Effectiveness of Entrepreneurial Education Methods (EEM) | | | | | |
| | | How Choice of EEM Is Determined By University Policy | | | | | |
| 43 | Lecturer number 2, MUBS | "I think we are having challenges whereby we are questioned whether we are a vocational school or a university. For instance, if part of the examination we say that maybe entrepreneurship students are going to come up with new projects, and in the process of coming up with those new products or services you're going to find they are going to be doing more of [what colleagues in the industry perceive as] vocational work." | "I think we are having challenges whereby we are questioned whether we are a vocational school or a university..." | Explores the tension between theoretical and practical learning in entrepreneurship education, questioning the identity of the institution. | Theoretical vs. practical learning, Vocational identity, Institutional identity | Balancing Theory and Practical Learning | Determinants of entrepreneurship Education |

The statement by Lecturer 2 from MUBS highlights a critical barrier to adopting non-curricular methods as some lecturers perceive that “vocational” approaches devalue the university's academic rigour. This view is anchored in the belief that a shift towards more practical, hands-on approaches could undermine the traditional academic values associated with university education. This reveals a need for more robust advocacy and education around the benefits of co-curricular and extracurricular methods to overcome these entrenched attitudes and embrace a more holistic approach to entrepreneurship education that enables the students to acquire employability skills.

a) Methodology vs Niches

Some students perceived the effectiveness of EEMs based on their ability to provide specialised knowledge in specific areas, allowing them to develop a niche rather than acquiring broad knowledge across multiple areas. They suggested that if teaching methods were more tailored to individual students' passions and interests, this could greatly enhance their entrepreneurial capabilities (Quote 44, Table 41). In essence, these methods would be most effective when training is customised to align with students' personal traits, abilities, and the specific paths they wish to pursue.

Lecturers (such as Lecturer 2 from BCU - Quote 46) noted that students do not need to possess all entrepreneurial skills. Instead, they emphasised the importance of leveraging teamwork and collaboration by delegating tasks that require skills they lack to other individuals and focusing on what they are good at (Quote 45, Table 41). These insights suggest that students value a strategic approach to skill development, where emphasis is placed on honing their core competencies while filling gaps through collaboration or outsourcing.

Table 41: Methodology vs Niches

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|---|--|---|---|---|-------------------------------------|---|
| | | Effectiveness of Entrepreneurial Education Methods (EEM) | | | | | |
| | | Methodology vs. Niches | | | | | |
| 44 | Lecturer 2, BCU | "... again, it's almost impossible for us because if you have a class of 80 students, and they were all to come up with 80 different things that they are passionate about, if there's a way to tap into doors in the delivery of entrepreneurship where everyone is doing something that they like that would be most effective, but will it be possible to do? ... would you be able to provide that support one-to-one? Because one student wants to do something on football, another [student] wants to do something on another topic, some of them will come up with areas you don't even know anything about. You can't be everywhere." | "it's almost impossible for us because if you have a class of 80 students, and [if] they were all to come up with 80 different things that they are passionate about... that would be most effective, but will it be possible to do? ... would you be able to provide that support one-to-one?.." | Discusses the challenge of providing personalised support to a large number of students with diverse entrepreneurial interests. | Niche skills, Personalised support, Student diversity, Resource constraints | Niche Skills, Personalised Learning | Niche Skills development and Teamwork in Entrepreneurship |
| 45 | Student No 6, MUBS and BCU Combined focus group | "Just want to say I agree with what Student 1 said about having to find a problem and creating a solution for that ... for the skills you put up, I think they are all important but also I think that being an entrepreneur you don't have to have all those skills. I think you can be good at a few of them and get a team that can help you with the other ones as well." | "... being an entrepreneur you don't have to have all those skills. I think you can be good at a few of them and get a team that can help you with the other ones." | Emphasises that entrepreneurs do not need to master all skills but should focus on their strengths and collaborate with others who complement their skills. | Skill specialisation, Teamwork, Collaboration, Delegation | Leveraging Team Strengths | |
| 46 | Lecturer 2, BCU | "... so some of them I have been working with recently and they are very creative and innovative but then they are not very good at communication and strategy and they are the first to admit they can't stand in front of a camera so that can't stop them ... xxx, he is a primary example, he hires people that can do things better than him so I think as an entrepreneur that is probably a skill that you identify your weaknesses so that you can actually identify that I have got all of these and I'm not good at kind of decision making, critical analysis so getting somebody to help you make these decisions could in away become a successful" | "xxx, he is a primary example, he hires people that can do things better than him" | Suggests that entrepreneurs can leverage external expertise to address skill gaps, such as hiring specialists for digital marketing. | Outsourcing, Delegation, Skill Gaps, External expertise | Leveraging Individual Strengths | |

However, while niche skills development and tailored learning experiences are valued by students, implementing such an approach in a university setting requires careful

consideration due to the logistical and resource-related challenges as highlighted by *lecturer 2 from BCU (Quote 44)*.

b) Skills Vs Mindsets

In the analysis of student responses, a distinct theme emerged that underscores the interplay between acquiring practical skills and cultivating the right mindset for entrepreneurial success (Table 42).

i. Psychological Factors: Entrepreneurial Intent, Mindset, and Ambition

Student 7 from the combined BCU/MUBS group emphasised that being a successful entrepreneur is less about the structural format of one's education (e.g., full-time vs. part-time) and more about individual ambition and mindset. The student suggested that the ability to learn and achieve is primarily driven by one's determination and mental attitude rather than the external circumstances of their education (Quote 48, Table 42).

Table 42: Entrepreneurial Intent, Mindset, and Ambition

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|------------------------------------|--|---|---|--|---------------------------------------|---|
| | | Skills Vs Mindsets | | | | | |
| | | Psychological Factors: Entrepreneurial Intent, Mindset and Ambition | | | | | |
| 47 | Student 7, BCU/MUBS Combined Group | "According to me, I think it doesn't affect you in any one way or the other, I think its according to someone's ambition and knowing what they really want to achieve in life because it's not about being a fulltime that you limited at knowing certain things or when you are a part-time you have the time to get out to know everything that you want to know. I think it's all about your mindset. During my internship I was a part-time Student because I could go for internship and come back to campus but then I felt it's the same thing like a fulltime Student - its actually about you and how you set your mind to learning certain things and to get what you want." | "... its actually about you and how you set your mind to learning certain things and to get what you want." | Highlights that ambition and mindset are crucial in entrepreneurship, regardless of one's status as a full-time or part-time student. | Ambition, Mindset, Learning approach | Importance of Mindset and Ambition | Mindset and Psychological Factors in Entrepreneurship |
| 48 | Student 7, BCU/MUBS Combined Group | "I think psychological factors on oneself, like the way people think individually can also impact if they want to be entrepreneurs or not." | "I think psychological factors on oneself, like the way people think individually can also impact if they want to be entrepreneurs or not." | Suggests that individual psychological factors significantly influence entrepreneurial intent. | Psychological factors, Entrepreneurial intent, Personal motivation | Influence of Psychological Attributes | |

This perspective highlights the significance of a proactive mindset in leveraging educational opportunities to develop entrepreneurial capabilities. The student's experience during an internship (Quote 47, Table 42) reinforced this viewpoint, illustrating that regardless of the teaching methods, type of enrolment or the universities administrative framework, it is the individual's mindset that ultimately determines their learning and entrepreneurial outcomes. This observation suggests that entrepreneurship education should not only focus on imparting skills, but also on fostering a positive entrepreneurial mindset, as psychological factors significantly impact one's propensity to pursue entrepreneurship.

ii. Environmental Influence and Peer Learning

Environmental factors and peer learning also emerged as crucial components in fostering entrepreneurship skills and mindset. Student 5 from the combined BCU and MUBS group provided insights into how the university environment, particularly the presence of like-minded individuals, contributes to the development of entrepreneurial skills (Quote 49, Table 43).

Table 43: Environmental Influence and Peer Learning

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|--|---|--|--|---|--------------------------------------|---|
| | | Skills Vs Mindsets | | | | | |
| | | Environmental Influence and Peer Learning | | | | | |
| 49 | Student 5, BCU and MUBS combined group | "I just want to make a point that I think the university gave me more skills for entrepreneurship rather than before not specifically because of the university's curriculum but rather the fact that at university I was surrounded by people who also have the same mindset who wanted to be entrepreneurial like me and then I could reflect on them and on the skills that they had and improve." | "... at university, I was surrounded by people who also have the same mindset who wanted to be entrepreneurial like me and then I could reflect on them and on the skills that they had and improve" | Points out the importance of being in an environment with like-minded peers in enhancing entrepreneurial skills and mindset. | Peer learning, Entrepreneurial environment, Skill improvement | Enhancing Skills Through Environment | Environmental Influence on Entrepreneurship |
| 50 | Student 5, BCU and MUBS combined group | "So, for example for me being surrounded by other people who also are into entrepreneurship I was able to communicate better, and I would say that improved my communication overall the university is important for improving your entrepreneurship skills not just because of what you've taught but also that you surrounded by people who have the same ambitions. You can also get online like you mentioned before to an entrepreneurship society, but the thing is that it's just looking at screen that's not actually physically being surrounded by people who also have the same mindset which them improves the skills is better than just reading, that's my opinion." | "So, for example for me being surrounded by other people who also are into entrepreneurship I was able to communicate better" | Emphasises the value of physical presence in a like-minded entrepreneurial community for improving communication skills and overall development. | Physical presence, Community influence, Communication improvement | Enhancing Skills Through Community | |

The student's statement (Quote 49, Table 43) highlights the importance of being in an environment with peers who share similar entrepreneurial ambitions, as it creates a supportive learning environment that facilitates the exchange of ideas and skills. Furthermore, this peer influence was seen as crucial for improving communication skills and overall entrepreneurial competence. Student 5 from BCU and MUBS combined group contrasted this with online interactions, which lack the immediacy and impact of face-to-face engagement (Quote 50, Table 43).

3. SUMMARY OF FOCUS GROUP FINDINGS ON EE

One of the key objectives of this research was to assess how effectively students' entrepreneurship skills were developed through EE methods at the participating universities. Both students and lecturers acknowledged that curricular methods, typically

delivered in the classroom, were well-suited for building foundational business management skills. However, focus group findings mirrored survey results, where lecturers generally favoured curricular methods, while students preferred extracurricular activities for developing practical entrepreneurship skills. This difference highlights a potential disconnect between students' and lecturers' preferences in EE approaches.

Prior to multiple clarifications by the researcher, there was also a notable misunderstanding among participants regarding the distinction between extracurricular and co-curricular activities. Some lecturers, while supporting extracurricular methods, seemed to reference co-curricular activities instead, suggesting a recurring ambiguity in their understanding. Equally, students also often viewed extracurricular activities as entirely separate from university oversight.

Lecturers acknowledged the value of EEMs in offering hands-on experiences and encouraging self-driven learning, but raised concerns about their practicality, particularly in contexts with large class sizes, such as those at MUBS. The choice of EE methods at both BCU and MUBS appeared to be shaped by policy frameworks and lecturer preferences, with a stronger emphasis placed on curricular methods over co-curricular and extracurricular approaches.

Lastly, an interesting insight from the students was that EE should focus on developing niche expertise rather than offering broad-based knowledge. They emphasised that aligning teaching methods with their individual passions and interests could greatly enhance their entrepreneurship skills. In essence, students believed that customised training, tailored to their abilities and entrepreneurial goals and aspirations, would be the most effective approach for fostering their development of entrepreneurship skills.

5.3.3.3 ENTREPRENEURSHIP ECOSYSTEMS

The final, and perhaps most critical objective of this research was to examine how entrepreneurship ecosystems shape the selection and effectiveness of EE methods at the participating universities. This section presents focus group findings from both students and, mainly, lecturers at BCU and MUBS. It highlights how the distinctive characteristics of their respective ecosystems influence the choice and impact of EE methods. The findings also explore the broader ecosystem's effects on skill development, extending beyond the boundaries of EE provided within the university setting. They are presented in their respective ecosystem domain sub themes.

1. EFFECTS OF THE ENTREPRENEURSHIP ECOSYSTEM ON EE and SKILLS DEVELOPMENT

Students were introduced to the concept of various ecosystem domains and asked to identify which factors they believed contributed significantly to their entrepreneurial mindset and skills. The discussions revealed a consensus among participants that the broader entrepreneurial ecosystem plays a crucial role in shaping their entrepreneurial journey (Quotes 51 and 52, Table 44).

Table 44: Overall Ecosystem Effects on Entrepreneurship Skills

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|---|---|---|---|---|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Overall Ecosystem Effects | | | | | |
| 51 | Student 3, MUBS | "I agree with Student 1; there is nothing extra I would like to say." | "I agree with Student 1 [on the positive impacts of environmental factors]." | Expresses agreement with a peer's statement, indicating consensus or shared understanding regarding the effect of ecosystem factors | Peer agreement, Shared understanding, Consensus, Entrepreneurship Ecosystem | Reinforcing Collective Opinions on Ecosystems | Significant role of the entrepreneurship ecosystem and environmental factors in shaping entrepreneurship skills |
| 52 | Student 8, MUBS | "I would also agree with Student 1. I think the ecosystem gives us much more impact because, to an extent, the rest of our alternatives come from the ecosystem." | "I think the ecosystem gives us much more impact ... our alternatives come from the ecosystem." | Emphasises the significant role of the entrepreneurship ecosystem in shaping opportunities and resources for entrepreneurs. | Ecosystem impact, Resource dependence, Entrepreneurial opportunities | Role of Ecosystem in Shaping Opportunities | |

Overall, students recognised that their entrepreneurial journeys are deeply interconnected with the external environment. The discussions highlighted the dynamic and multifaceted nature of the entrepreneurial ecosystem. Multiple aspects of the ecosystem were highlighted, including social media, family influence, and real-world challenges, that collectively shape their entrepreneurial skills and aspirations.

a) Finance: Necessity Entrepreneurship vs. Opportunity Entrepreneurship

The students' responses highlighted the stark differences between opportunity-driven and necessity-driven entrepreneurship, particularly in the context of financial resources and the broader entrepreneurial ecosystem. Student 4 from MUBS (Quote 53, Table 45) provided a compelling reflection on this issue: The students statement highlights the fundamental differences in the entrepreneurship landscape between developing and developed countries and emphasises that financial factors play a critical role in shaping whether entrepreneurship is pursued out of necessity or as a choice driven by opportunity. This distinction has important implications for entrepreneurship education and support programmes and suggests that they need to be tailored to address the unique challenges and opportunities in different economic contexts.

Table 45: Necessity Entrepreneurship vs. Opportunity Entrepreneurship

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|--|---|--|--|---|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Finance: Necessity Entrepreneurship vs. Opportunity Entrepreneurship | | | | | |
| 53 | Student 4 - From BCU | "In less developed countries like Pakistan, accessing resources and support for entrepreneurship is more challenging compared to more developed countries like England. The scarcity of resources and the prevalence of criticism make it harder to pursue entrepreneurial endeavours. In contrast, in more developed countries, there are more resources available, and the culture is more supportive of entrepreneurship." | "In less developed countries like Pakistan, accessing resources and support for entrepreneurship is more challenging compared to more developed countries like England..." | Highlights the challenges faced by entrepreneurs in less developed countries due to resource scarcity and cultural barriers compared to more developed regions. | Resource challenges, Cultural barriers, regional disparities | Geographic Disparities in Entrepreneurial Access | Finance affects entrepreneurship skills |

b) Human Capital: The Role of Higher Education in Shaping Entrepreneurial Mindsets

The responses from the focus group participants shed light on the significant role of higher education institutions in nurturing entrepreneurial skills and mindsets. This is explained below.

i. Integration of External Resources and Services

The focus group discussions revealed that higher education institutions play a significant role in shaping entrepreneurial mindsets by integrating external resources and services into the campus environment.

Table 46: Human Capital and The Role of Higher Education in Shaping Entrepreneurial Mindsets

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|---|--|---|---|---|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Human Capital: The Role of Higher Education in Shaping Entrepreneurial Mindsets | | | | | |
| | | Integration of External Resources and Services | | | | | |
| 54 | Student 2A, BCU | "The university sort of brings all these external things into the internal environment because of the services they provide, and how they interact with the other businesses into the university [such as Starbucks] ... now university has made me understand that I need this entrepreneurial skill, not just as an entrepreneur, but also to be manager or be successful in anything." | "The university ... brings all these external things into the internal environment ..." | Describes how universities integrate external business resources into their learning environments to enhance both entrepreneurial and managerial skills and experiences. | Integration of external resources, Skill development, Managerial competencies | Integrating External Resources into Education | Leveraging External Resources & environment |

This integration exposes students to real-world business interactions and practices, thereby enhancing their entrepreneurial skills. Student 2A from BCU highlighted that *"the university ... brings all these external things into the internal environment ..."* (See full Quote 54, Table 46). This quote illustrates how the university environment, with its mix of internal educational activities and external business engagements, serves as a fertile ground for cultivating entrepreneurship skills as students gain practical insights, by observing and learning from businesses at university, that complement the theoretical knowledge gained in class.

ii. Depth of Entrepreneurship Knowledge and Practical Application

The findings indicate that while universities offer a deep and structured understanding of concepts upon which the development of entrepreneurship skills is based, students also highlighted that university education extends beyond basic entrepreneurial concepts to support the development of an all-rounded business professional as articulated by student 2 from BCU reflected on the difference in knowledge gained at the university level compared to earlier education.

While the student highlights that university courses provide comprehensive and technical insights into various aspects of entrepreneurship (Quote 55, Table 47), it is this deep understanding that shapes students' mindsets towards entrepreneurship - and in the process - equipping them with essential skills for business success.

Table 47: Depth of Entrepreneurship Knowledge and Practical Application

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|-------------------------------------|--|--|---|---|---|---|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Human Capital: The Role of Higher Education in Shaping Entrepreneurial Mindsets | | | | | |
| | | Depth of Entrepreneurship Knowledge and Practical Application | | | | | |
| 55 | Student 2, BCU | "Before coming to university, when we were in sixth form, we knew entrepreneurship was just basic information and I feel if I didn't come to university, I would not know the depth of how much it goes to. When you study entrepreneurship and what comes with it, the knowledge... when you do the course at university, it helps you learn a lot of stuff like extra skills about the customers about the demand how to set-up and what kind of things you would need like finances and what kind of digital stuff you would need. But if I had not come to University, I would not know that. So, I feel it's very important because that helps you a lot to shape your mindset towards entrepreneurship." | "Before coming to university ... we knew entrepreneurship was just basic information and I feel if I didn't come to university, I would not know the depth... university... helps you learn a lot of stuff ... helps ... to shape your mindset towards entrepreneurship." | Emphasises the comprehensive knowledge gained through university education, which significantly deepens understanding of entrepreneurship and shapes entrepreneurial mindset. | Knowledge acquisition, Mindset shaping, Comprehensive understanding | Comprehensive Knowledge Development | Higher Education plays a big role in shaping entrepreneurship mindsets, that lead to students actually starting their own businesses or expanding family businesses |
| 56 | Student 2, BCU and MUBS Focus Group | "... you should expand your business, but you can't do it without having knowledge and the ability to do so. For example, at university, we went deep into understanding what a business plan is, and currently, I know how a business plan looks like, then a business model canvas and how to expand the market. As I speak now, we managed to convince my mom to have the business go on to Kampala town and open up a branch and we are running a branch in Kampala and supplying juice to people in Nakasero market." | "... you should expand your business, but you can't do it without having knowledge and the ability to do so... we managed to convince my mom to have the business go on to Kampala town and open up a branch and we are running a branch in Kampala and supplying juice to people in Nakasero market." | Illustrates the application of entrepreneurial knowledge from university courses to real-life business expansion and market penetration. | Practical application, Business planning, Market expansion, Family Business | Applying Knowledge to Real-World Business Expansion | |

Furthermore, the practical application of this knowledge was highlighted by Student 2 from the combined BCU and MUBS focus group who explains how the detailed knowledge and practical frameworks provided by university courses directly contributed to real-life business expansion and operational success of their family business (Quote 56, Table 47). It illustrates the transformative impact of university education in not only imparting theoretical knowledge but also facilitating its practical application in real-world settings.

iii. Building Confidence and Presentation Skills

The focus group discussions revealed that university education plays a significant role in developing soft skills, particularly confidence and presentation skills, which are essential for entrepreneurship (Table 48).

Table 48: Building Confidence and Presentation Skills

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|---------------------------------|--|---|--|--|---|---|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Human Capital: The Role of Higher Education in Shaping Entrepreneurial Mindsets | | | | | |
| | | c) Building Confidence and Soft Skills | | | | | |
| 57 | Student 7, BCU/MUBS Focus Group | "...before I came to university, I wouldn't say [I was] confident. I was a bit reserved. So, I feel like university really opened that door for me ... like why are you scared? Nothing is not going to bite you... why are you afraid of presenting and everything else? ... right now, every time I do a presentation, I don't need to be scared ... oh they are going to laugh ... oh you don't know what you're saying ... like I can literally feel free. I'm not scared. I think that is really, really important ... confidence is really key, especially in entrepreneurship." | "before I came to university, I wouldn't say [I was] confident. I was a bit reserved... university really opened that door for me ... confidence is key, especially in entrepreneurship." | Highlights the development of confidence as a critical skill gained from university, essential for entrepreneurship. | Soft skills, Confidence building, Overcoming fear, Presentation skills | Building Confidence and Presentation Skills | Role of Higher Education in enhancing soft skills |

Student 7 from the combined BCU/MUBS focus group emphasised this transformative impact of university experiences in fostering self-confidence, especially through activities such as presentations (Quote 57, Table 48). The development of these soft skills, as highlighted by Student 7 above, highlights the role of higher education, not only in imparting theoretical knowledge but also in enhancing essential soft skills which help in building a well-rounded entrepreneurial profile.

iv. Diversity and Exposure to New Ideas

These findings highlight the significance of the university environment in exposing students to new ideas, and in enhancing their creative thinking notwithstanding their diverse cultural and traditional backgrounds. In fact, coming from a different cultural background, students found that diversity at university stimulated their creativity and entrepreneurial thinking. The submission by Student 3A from MUBS (Quote 58) highlights how exposure to a variety of cultures and people at university can enhance one's entrepreneurial perspective by providing a broader array of viewpoints and experiences, which may not have otherwise been possible in their rural, and possibly more homogeneous or less dynamic environments.

Table 49: Diversity and Exposure to New Ideas

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|--|--|--|--|---|--|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Human Capital: The Role of Higher Education in Shaping Entrepreneurial Mindsets | | | | | |
| | | Diversity and Exposure to New Ideas | | | | | |
| 58 | Student 3A | "To me I think the environment at campus can make someone a good entrepreneur. For instance, me I'm from west Buganda (Lyantonde), but when I was still there from my childhood to senior six, I couldn't generate some good ideas about business. I couldn't think in that direction, it may be due to the culture, the support from your relatives ... so and so will help me, so and so will help me ... but when I came to Kampala to study, I found many different cultures at campus, different people, different friends ... from those friends, it's where I got my ideas. Campus life (and) campus education has helped me a lot than the other environment." | "To me I think the environment at campus can make someone a good entrepreneur... Campus life (and) campus education has helped me a lot than the other environment." | Discusses the influence of a diverse university environments on generating entrepreneurial ideas and fostering an entrepreneurial mindset. | Cultural diversity, Multiplicity, Idea generation, Entrepreneurial environment | Influence of Diversity on Idea Generation | Role of Diversity, university environment and exposure in shaping entrepreneurship |
| 59 | Student 2A, MUBS | "I believe the environment of MUBS is favouring. It can mold someone into a better entrepreneur... yeah, people are allowed to trade inside school. I think for student in MUESA, they can easily trade in school. People don't base on cultures here. People relate with one another you can talk to anyone you feel like people are not biased about cultures you can trade things with others regardless of cultures and background." | "I believe the environment of MUBS is favouring. It can mold someone into a better entrepreneur..." | Highlights the supportive environment at MUBS that allows students to engage in entrepreneurship and trade without hinderances or cultural biases. | Supportive environment, University Policy, Cultural inclusivity, Entrepreneurial opportunities | Supportive and Inclusive Environment | |

Student 2A from MUBS further supported this point by noting that the university environment not only provides diversity but also a conducive setting for entrepreneurship, especially the fact that they are allowed to trade within the campus environment (Quote 59, Table 49). By allowing open interactions across diverse cultural lines and encouraging

trading activities within the campus, the university campus plays a significant role in fostering an entrepreneurial spirit by replicating a microcosm of a broader market environment where students can practice and develop their entrepreneurial skills.

v. Lecturer Perspectives on The Role of Higher Education In Supporting Entrepreneurship Education

Lecturers from both BCU and MUBS supported the view that higher education institutions (HEIs) play a crucial role in shaping entrepreneurial skills and mindsets. However, the perspectives from lecturers suggest that while universities are crucial in developing entrepreneurial skills, they emphasised that theoretical underpinnings were not enough, in and of themselves – they emphasised the importance of practical, hands-on learning to adequately prepare students for real-world applications, as Lecturer 6 from MUBS noted:

"We need to provide our students with those skills... everything is about practicing and practicing and practice."

This underscores the belief in practice-based learning as an essential component of entrepreneurial education. In addition to the emphasis on practical learning, lecturers also discussed the impact of students' pre-university education on their entrepreneurial mindset and preparedness. This was well put by Lecturer 6 from MUBS who highlighted that students who were exposed to entrepreneurship concepts in secondary education typically have a stronger foundation and more enthusiasm for the subject when they enter university (Quote 61, Table 50).

Table 50: Lecturer Perspectives on The Role of Higher Education In Supporting Entrepreneurship Education

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|----------------------|--|--|--|--|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Human Capital: The Role of Higher Education in Shaping Entrepreneurial Mindsets | | | | | |
| | | Lecturer Perspectives: Role of University Environment vs The Family and Community in Shaping Entrepreneurship aspirations | | | | | |
| 61 | Lecturer 6, MUBS | "I think the estimate is about ... maybe even 80%. Because if I could give you an example that I was teaching one class and I asked a class of 52 students. They were doing [activities] in a business class. I asked them, 'how many of you thought of this course before coming to the university?' I got two people. The rest said we are here accidentally. We wanted something else but then something else came and we decided to take it on. Even their parents say I want you to be a doctor before even they go to university - they give them careers by force... So, this one is a big contributor." "parents say I want you to be a doctor before even they go to university - they give them careers by force... So, this one is a big contributor." | | Reflects on the influence of parental and societal expectations on students' career choices, often leading them to entrepreneurship by chance rather than deliberate choice. | Parental influence, Societal expectations, Career choice | Influence of External Expectations on Career Choices | The role of the University Environment vs The Family and Community in Shaping Entrepreneurship aspirations |

Conversely, the absence of structured career guidance in secondary schools often results in students selecting entrepreneurship programmes without genuine interest or preparation, potentially undermining their engagement and success once they have joined these courses (Lecturer 6 at MUBS, Quote 61, Table 50).

While the university setting provides foundational knowledge and builds student confidence in entrepreneurial pursuits, participants from the focus groups acknowledged that the true test of these skills lies within the broader entrepreneurial ecosystem. That the controlled and supportive environment of a university greatly differs from the unpredictable and challenging realities faced outside of it. This was explained by Student 8 from MUBS (Quote 63, Table 51), who asserted that while universities lay the groundwork for entrepreneurial education, they can only partially prepare the students for the world of work.

Table 51: Institutional Support and The Congruence Between the University and The Wider Ecosystem

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|--|---|---|---|--|---|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Human Capital: The Role of Higher Education in Shaping Entrepreneurial Mindsets | | | | | |
| | | Leadership and Institutional Support | | | | | |
| 62 | BCU Lecturer 3 | "I mean I'm new to university - I have been here a few months. But coming in. I think already I have seen a lot of changes around the infrastructure and with the business advice centre it's going to be positive... uhm... I think the degree of flexibility with other lecturers as well - that we can bring people in ... uhm ... acting to the local communities through the small projects that we were doing." | "I think the degree of flexibility with other lecturers ... acting to the local communities through the small projects that we were doing." | Discusses the role of infrastructure and institutional support in enhancing entrepreneurship education, including flexibility and community engagement. | Institutional support, Infrastructure development, Community engagement | Institutional Support and Infrastructure Development | Role of community and university institutional support structures in shaping entrepreneurship |
| | | The Congruence Between the University and The Wider Ecosystem | | | | | |
| 63 | Student 8, MUBS | "I believe at university we do get the knowledge and, of course, the confidence to go and take on these opportunities. But I have taken on a few ventures into entrepreneurship, and it's a little bit different out there because when you are at university, it's a smooth line—it's basically learn this and that, I know that, so I can do it. But there are very many elements outside in the other ecosystem, so it challenges you a little. So, you must be more than diverse to take on the ecosystems outside. So, I believe there is a lot to learn outside, and university just prepares you to put you there; it gives you the understanding, but it's quite different outside." | "... when you are at university, it's a smooth line—it's basically learn this and that, I know that, so I can do it. But there are very many elements outside in the other ecosystem, so it challenges you a little. So, you must be more than diverse to take on the ecosystems outside. So, I believe there is a lot to learn outside, and university just prepares you." | Highlights the gap between theoretical knowledge gained at university and the practical challenges faced in the external entrepreneurial ecosystem. | Knowledge vs. real-world challenges, Ecosystem diversity, Practical application | Bridging Knowledge with Real-World Challenges | Acknowledgement that the university environment and the external ecosystem are different, and to succeed requires flexibility and adaptability. |

To address the challenges highlighted, lecturers from both BCU and MUBS emphasised that leadership within universities greatly impacts entrepreneurship education. They highlight that effective leadership within higher education institutions can significantly influence the availability and quality of resources, which in turn can foster an environment conducive to

entrepreneurship. In Quote 62 (Table 51), the lecturer highlights how recent infrastructural improvements, and the establishment of a business advice centre reflect proactive leadership that supports entrepreneurial endeavours. It also emphasises the importance of flexibility among faculty members, which allows the integration of community-oriented projects that enhance practical learning and innovation. By fostering such a supportive environment, university leadership directly contributes to cultivating entrepreneurial mindsets and skills among students.

c) Culture

The influence of culture on entrepreneurship skills emerged as a significant theme from the focus group discussions. Students and lecturers provided various perspectives on how cultural environments and upbringing shaped entrepreneurial attitudes and behaviours, as presented below.

i. Overall Influence of Culture on Entrepreneurship Skills

Students highlighted that cultural upbringing plays a foundational role in shaping entrepreneurial skills. For instance, Student 7A from MUBS emphasised that cultural upbringing, particularly the cultural norms and values ingrained from childhood, significantly influenced their entrepreneurial skills. One example provided was the importance of respect in business dealings — a value they learned from their central Ugandan background (See Quote 64, Table 52).

Table 52: Overall Influence of Culture on Entrepreneurship Skills (A)

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|--|--|--|--|--|--|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Culture | | | | | |
| | | Overall Influence of Cultural Background on Entrepreneurial Mindsets | | | | | |
| 64 | Student 7A, MUBS | "I would say that culture doesn't have a contribution towards my entrepreneurship skills. For example, am from the central and we have that aspect of respecting people. So, when you go out to make a business, you should know, at the back of your mind, that you have to respect your customers so that you can probably attract more people into your business or something like that. So, for me, it contributes a lot to the business. Then coming back to the university, the cultural aspects at the university it just builds on what you have come up with from your grassroots because at university they just tell you how to manage the business and even though they will tell you about respect for the customers, but you have to come with it from the roots and that how culture has contributed to my entrepreneurial skills." | it contributes a lot to the business... the cultural aspects at the university just builds on what you have come up with from your grassroots ... That's how culture has contributed to my entrepreneurial skills. | Argues that cultural upbringing influences entrepreneurial skills indirectly, especially in areas like customer relations and respect, which are reinforced at the university level. | Cultural upbringing, Customer relations, Respect | Influence of Cultural Upbringing on Skills | The cultural background of students before they come to university affects the extent to which they are likely to be entrepreneurial due to prior experiences. |

This suggests that while universities can enhance entrepreneurial skills, the foundational aspects of these skills are often rooted in the students' cultural backgrounds. In this case,

the student's upbringing in a culture that values respect is directly applied in their entrepreneurial practices and experiences.

Table 53: Overall Influence of Culture on Entrepreneurship Skills (B)

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|--|---|---|---|--|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Culture | | | | | |
| | | Overall Influence of Cultural Background on Entrepreneurial Mindsets | | | | | |
| 65 | Student 8A, MUBS | "I am from the North. My take on culture is that in Uganda, currently, we are very rich in culture and being from the North and studying in the central a little bit narrows the cultural influence that I have from home because being that am in the central, am going to meet very many other people from the West or from the East and at the end of the day you [are] going to realise that you must embed each and everyone's cultural beliefs so that you don't offend your clients in anyway. So I believe there is an aspect of culture, but it also depends on how much you have taken on as an individual [before you come to university] because if am from the North and I choose to exhibit only and only the things I was taught back home and still chose to take on business strictly on those elements, I may in some way, or the other, not be able to cover for my clients from the East or from the Central and at the end of the day, you realise that with culture you must be able to be diverse and know something from everywhere and be able to handle your clients in a way they are extremely comfortable. So, I believe culture as an element, is more or less very useful but it does not tie you down to particularly your culture. You must be able to understand and respect each and every culture and appreciate it so that you can effectively manage your clients." | I believe there is an aspect of culture, but it also depends on how much you have taken on as an individual [before you come to university]... but you must be able to understand and respect each and every culture and appreciate it so that you can effectively manage your clients." | Emphasises the need for cultural flexibility and understanding in entrepreneurship to manage diverse client expectations effectively. | Cultural flexibility, Client management, Diversity appreciation | Cultural Flexibility in Client Management | The cultural background of students before they come to university affects the extent to which they are likely to be entrepreneurial due to prior experiences. |

While student 7A almost suggest that these cultural experiences are engrained, Student 8A from MUBS provided a nuanced view of how cultural diversity within Uganda necessitates flexibility and adaptability in managing clients from different cultural backgrounds (See full Quote 65, Table 53). This perspective explores the importance of cultural flexibility and appreciation in entrepreneurship.

Table 54: Overall Influence of Culture on Entrepreneurship Skills (C)

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|--|---|--|--|--|--|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Culture | | | | | |
| | | a) Overall Influence of Cultural Background on Entrepreneurial Mindsets | | | | | |
| 66 | Lecturer No 5, MUBS | "I've given this example over and over again of my village mate who called me and said, 'my son did not graduate'. I checked his results, and he had scored a second class upper. So, I asked him, 'why do you think he did not graduate'? He said it's because he is selling popcorns. So now that takes me back to the background ... he is thinking he should be a banker - he should be something else, not necessarily an entrepreneur - and more so, selling popcorns" | "... my village mate who called me and said, 'my son did not graduate'... he should be a banker - he should be something else, not necessarily an entrepreneur - and more so, selling popcorns" | Discusses societal expectations and the stigma attached to certain types of businesses, impacting entrepreneurial choices and perceptions. | Societal expectations, Societal Biases, Business stigma, Career perception | Societal Expectations and Career Perceptions | The cultural background of students before they come to university affects the extent to which they are likely to be entrepreneurial due to prior experiences. |

This points to the need for adaptability in entrepreneurship, as cultural beliefs can significantly impact the feasibility of certain business ventures in different regions. Indeed, not all cultural influences were deemed positive. Lecturer No 5 from MUBS also shared an anecdote about a village mate whose son was stigmatised for choosing an entrepreneurial

path instead of a more traditional profession (Quote 66, Table 54). This example highlights how societal expectations, deep-seated cultural norms and biases, and the overall stigma associated with non-traditional career paths, can deter entrepreneurial pursuits, particularly when certain types of businesses are perceived as less prestigious or undesirable in some communities.

ii. Cultural Resilience and the Entrepreneurial Drive

Some students, such as Student 12 from the BCU saw cultural backgrounds as a source of resilience and a driving force in students' entrepreneurial pursuits, particularly for ethnic minorities in the UK. Reflecting on their own experience as a Ghanaian who moved to Italy and then to the UK, the student noted that being from a minority background often means having to work harder than their white counterparts (Quote 67, Table 55).

Table 55: Ethnicity and Societal Norms (A)

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|---------------------------------------|--|--|--|---|--|--|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Culture | | | | | |
| | | Ethnicity and Societal Norms (continued) | | | | | |
| 67 | Student 12, BCU, Combined Focus Group | "I think culture is very important. For example, in most ethnic minority groups in the UK, if you come from an ethnic minority, you know you have to push yourself a little harder compared to your white counterparts. For example, I am Ghanaian. I was born in Ghana, moved to Italy after birth, and then moved to the UK. I didn't know much about my culture in Ghana, but when I went back during holidays, I saw the difference between developed and undeveloped parts. This made me realise why so many black Africans and black Arabians raised in Africa or third-world countries are so pushy at being entrepreneurs when they come to first-world countries. They know that if they don't push themselves as hard as others, the place they will come back to is not favourable. So, I think culture is very important." | "This made me realise why so many black Africans and black Arabians raised in Africa or third-world countries are so pushy at being entrepreneurs when they come to first-world countries. They know that if they don't push themselves as hard as others, the place they will come back to is not favourable" | Highlights how cultural background, particularly hardships in the ethnic minority communities, influences the drive and resilience in entrepreneurship due to the perceived need to work harder and overcome barriers. | Necessity of entrepreneurship, ethnic minority experience, Cultural resilience, Entrepreneurial drive | Ethnicities encounter barriers in Entrepreneurship | Resilience as a result of cultural and Social Influences |

iii. Debating Cultural Impact on Entrepreneurship: Gender Perspectives

Coming from a mixed-race family - with a British father and a Liberian mother - student 4 from BCU discussed how in some cultures, entrepreneurship is not only a means of economic survival or growth but also a symbol of social status;

"... in certain cultures, having a business can be like a social status thing to show that you own something." (Quote 68, Table 56).

In the above instance, the prevalence of "*side hustles*" within the student's maternal family highlighted a cultural norm where entrepreneurship was an ingrained part of everyday life and served as a status symbol or evidence of one's ability to succeed independently. So the

student naturally leaned towards her mother's entrepreneurialism, and in the process learn a lot. However, not all influences on culture were deemed positive for entrepreneurship. Student Number 11 from MUBS provided a contrasting perspective, and challenged the idea that culture significantly influences entrepreneurship, especially among women. The student argued that traditional gender roles, where women were primarily caretakers and men were the providers, have not necessarily held, with women now owning their own businesses (Quote 69, Table 56). This perspective suggests a form of cultural neutrality in contemporary entrepreneurship, particularly in the context of gender. The student believes that historical roles do not have a substantial impact on women's current participation in entrepreneurship, implying that modern entrepreneurship is shaped more by other factors other than by traditional cultural norms.

Table 56: Ethnicity and Societal Norms (B)

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|-------------------------|---|---|---|--|--|--|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Culture | | | | | |
| | | Ethnicity and Societal Norms (continued) | | | | | |
| 68 | BCU Student 4 | "I think culture is extremely important because I am mixed race. My dad is from the UK, and my mom is from Liberia. I have noticed that both my parents have businesses. But with my mom's side, a lot of her friends and family have or had businesses, or they have a 'side hustle.' I think it is something that's quite big in their culture. On my dad's side, fewer people have businesses. Even when my mom moved to the UK, instead of getting a job, she decided to start her own business. So, I think culture is a big aspect there. Also, in certain cultures, having a business can be like a social status thing to show that you own something." | "... in certain cultures, having a business can be like a social status thing to show that you own something." | Highlights the influence of cultural background and family dynamics on entrepreneurial activities, including the role of side hustles and entrepreneurship as a status symbol. | Cultural Influence, Family entrepreneurship, Social status | Cultural Influence on Entrepreneurial Activities | Resilience as a result of cultural and Social Influences |
| 69 | Student Number 11, MUBS | "I don't think culture shapes entrepreneurs because if we were to go back in time and consider women or mothers, they were more of caretakers of the homes and then men would go out to provide so I don't think that has had an effect on women being entrepreneurs today. I don't think culture has really had much of an effect." | "I don't think culture shapes entrepreneurs because if we were to go back in time and consider women or mothers, they were more of caretakers..." | Challenges the idea that culture significantly influences entrepreneurial development, particularly for women, by arguing that traditional roles do not necessarily impact modern entrepreneurship. | Cultural neutrality, Gender roles, Entrepreneurship | Debating Cultural Impact on Entrepreneurship | Cultural Neutrality |

iv. The Role of Family Background and Pre-University Environmental Factors in Shaping Entrepreneurial Skills

The discussions indicated that family background and pre-university environmental factors are pivotal in shaping entrepreneurial skills among students. The influence of family businesses and the opportunity for early exposure to real-world business challenges play critical roles in fostering an entrepreneurial mindset (Rogers-Draycott, 2021). For instance, Student 3A from BCU noted that many successful entrepreneurs come from families with a strong business orientation:

"... because every entrepreneur ... their mindset is based on how they grew up, and where they grew up, because most of these very big entrepreneurs - most of their families were literally like businessmen." (Quote 70, Table 57).

This suggests that being raised in a family environment where business is a common pursuit can naturally predispose and instil an entrepreneurial mindset in the student. This was a recurring theme with Lecturer 2 from MUBS noting that students who grew up in family businesses were more likely to consider entrepreneurship as a viable career path (Quote 72, Table 57), and Student 1A from BCU who noted that;

"... I'm a practical-based learner so I've always been in the environment of working on my dad's building sites so that's what later brings entrepreneurship skills." (See full Quote 73, Table 57).

These accounts suggest that experiential learning or hands-on experience in family businesses is invaluable for cultivating a practical understanding of entrepreneurship. Indeed, several participants, including Student 4 from MUBS (Quote 74) and Student 6A from MUBS (Quote 75), highlight that while university education provides foundational knowledge, real-world experiences, particularly those involving family businesses, have a more profound impact on shaping entrepreneurial ambitions (Table 57 - *see clearer and full quote in appendices*).

"... it's what has happened outside of university that has inspired me. My mum owns her own business, and I have a family that has started their own businesses..." (Student 4, Quote 74, Table 57)

"Because I was nurtured by a single mother, she had a lot of responsibilities. So, I had to make sure that every opportunity that I see, I learn from it, I utilise it and see that I successfully gain something from it." (Student 6A, Quote 75, Table 57).

These reflections point to the importance of necessity-driven entrepreneurship and resourcefulness fostered by challenging family backgrounds. Student 6A above notes that the absence of certain opportunities or resources within their family backgrounds played a significant role in shaping their entrepreneurial skills prior to coming to university (Quote 65, Table 57). This was particularly true when they experienced conditions of scarcity and lack within their families. Such circumstances created a sense of urgency and a strong desire to break free from these constraints, compelling them to inadvertently develop entrepreneurial traits and acquire related skills in order to survive. The role of family in the development of entrepreneurship skills, therefore, ought to be explored, not just in the sense of family-owned businesses, but also in the context of social economic circumstances of the family unit.

Table 57: The Role of Family Background and Pre-University Environmental Factors in Shaping Entrepreneurial Skills

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------------------|--|--|---|--|--|--|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Culture | | | | | |
| | | Family Background / Pre-University Environmental Factors | | | | | |
| 70 | Student 3A, BCU | "... generally, I think culture, because every entrepreneur ... their mindset is based on how they grew up, and where they grew up, because most of these very big entrepreneurs - most of their families were literally like businessmen - I feel like it's more of where we grew around - like student number two said something about youth clubs and all that other stuff" | "... culture, because every entrepreneur ... their mindset is based on how they grew up... most these very big entrepreneurs ... their families were literally like businessmen" | Suggests that an entrepreneur's mindset is significantly shaped by their cultural background and family environment. | Cultural background, Family influence, Mindset shaping | Impact of Cultural Background on Mindset | |
| 71 | Student 5A, MUBS | "...the problem here we have, I will call it the culture. We have different cultures in Uganda...you'll find yourself in a different area and you realise that the kind of business or the venture you can begin from there cannot apply [in another area] where we still have some people with different beliefs... the family is like 'for us we can't deal with such stuff'." | "I will call it the culture... the kind of business or the venture you can begin from there cannot apply [in another area] where we still have some people with different beliefs... the family is like 'for us we can't deal with such stuff'." | Points out the challenges that arise from cultural differences within Uganda, affecting the type of businesses that can be successfully established. | Cultural barriers, Family influence, regional diversity, Business adaptability | Navigating Cultural Differences in Business | |
| 72 | Lecturer 2, MUBS | "...for example, those who grew up in their father's businesses or those who've worked in such markets... [A student] then says that rather than sitting in someone's office and you're giving me one hundred thousand shillings, why shouldn't I make my own business and maybe I start something bringing in much money?" | "... those who grew up in their father's businesses ... why shouldn't I make my own business" | Reflects on the influence of family businesses and early exposure to entrepreneurship in shaping entrepreneurial aspirations and motivations. | Family business influence, Early exposure, Entrepreneurial aspirations | Impact of Family Business on Entrepreneurial Intent | |
| 73 | Student 1A, BCU | "... my father is a builder by trade. He left school to join carpentry. So, he's always been part of woodwork and he's got his own business. He built quite a lot of houses, has some extensions of woodwork. I'm a practical-based learner so I've always been in the environment of working on my dad's building sites so that's what later brings entrepreneurship skills." | "... I'm a practical-based learner so I've always been in the environment of working on my dad's building sites so that's what later brings entrepreneurship skills." | Emphasises the role of early exposure to family business and hands-on experience in developing practical entrepreneurial skills. | Hands-on experience, Family business influence, Practical learning | Early Exposure and Practical Learning | Family has a strong influence on the development of practical entrepreneurship skills and attitudes. |
| 74 | Student 4, MUBS | "I think recently with one of my modules, I had to write a business plan, so that was a good experience. But I think overall, it's what has happened outside of university that has inspired me. My mum owns her own business, and I have a family that has started their own businesses, so I have seen it from that perspective, and that has influenced me a little bit more because I have actually pictured what can happen." | "... it's what has happened outside of university that has inspired me. My mum owns her own business, and I have a family that has started their own businesses, so I have seen it from that perspective." | Suggests that while university education is valuable, real-world experiences, particularly from family-owned businesses, are more influential in shaping entrepreneurial ambitions. | Real-world experience, Family influence, Business exposure | Impact of family on entrepreneurship ambition | |
| 75 | Student 6A, MUBS | "Luckily or unluckily, I'm nurtured by a single mother. I would love to quote one successful entrepreneur who said 'necessity is the mother of innovation'. It reached a point when I have to go to school, I have to make sure tooth or nail I have to get my ka pocket money. I had to make sure that I utilise the opportunities around me to be that at least I make sure that I get some ka portion to go to school. Because I was nurtured by a single mother, she had a lot of responsibilities. So, I had to make sure that every opportunity that I see, I learn from it, I utilise it and see that I successfully gain something from it. By that I was becoming an entrepreneur - illiterate but which was true. I believe the world outside [made me more entrepreneurial] than campus." | "Because I was nurtured by a single mother, she had a lot of responsibilities. So, I had to make sure that every opportunity that I see, I learn from it, I utilise it and see that I successfully gain something from it." | Describes how necessity and a challenging upbringing fostered entrepreneurial skills and a proactive approach to seizing opportunities. | Necessity-driven entrepreneurship, Resourcefulness, Opportunity-seeking, Family Influence. | Family background, necessity and resourcefulness in entrepreneurship | |
| 76 | BCU Student 1 | "I've always been a practical-based learner. University has given me the confidence and understanding to put my foot through the door and proceed with building entrepreneurial skills. The experiences with my father also shaped my interest in entrepreneurship." | "I've always been a practical-based learner... The experiences with my father also shaped my interest in entrepreneurship." | Highlights the importance of practical learning and family's role in early exposure to entrepreneurship | Practical learning, Confidence building, Early exposure, Family Influence. | Practical Learning and Family Influence | |
| 77 | Student 4, MUBS and BCU Combined | "With one of my modules, I had to write a business plan. Overall, it's what happened outside of university that inspired me. My mum owns her own business, and I have a family that started their own businesses. Seeing it from that perspective influenced me more because I could picture what could happen." | "With one of my modules, I had to write a business plan. Overall, it's what happened outside of university that inspired me..." | Suggests that real-life exposure, particularly from family-owned businesses, had a greater impact on entrepreneurial ambitions than academic modules. | Family influence, Real-life exposure, Business planning | Impact of Family and Real-Life Exposure | |

d) Supports: The Role of Community in the Development of Entrepreneurship Skills

The focus group discussions highlighted the critical role of community in shaping and enhancing entrepreneurial skills among students. The participants' reflections emphasised how various community-based experiences and environments contribute significantly to skill development, market awareness, and overall entrepreneurial competence. Student 2 from BCU1 discussed how community and educational settings, such as youth clubs and local business initiatives, played a crucial role in developing their entrepreneurial skills

"I do think that this environment here has contributed to building some of these skills. For example, creativity for me was built in youth clubs that I attended when I was younger... [and] other opportunities that I've had through the environment." (Quote 78, Table 58).

These community-driven opportunities provide role models and practical learning scenarios that are instrumental in shaping entrepreneurial attitudes and abilities of students, long before they even make it to the university. Student 6 from MUBS and BCU Combined also emphasised how being well-informed about the target community and staying updated on global and local trends is crucial for identifying opportunities and effectively strategizing business operations:

"Being an entrepreneur, you need to be well informed about the environment, you need to know the people that you are going to exactly target when starting up a business... You need to know the community you are going to target and the people that are going to be your customers." (Quote 70, Table 57).

However, the concept of community was expanded by some participants such as Student 9 from MUBS and BCU Combined Group who expanded it to include the entire country. The student argued that the development level of a country, overall, shapes its entrepreneurial culture and its support networks - and that in more developed countries, cultural attitudes are generally more supportive of entrepreneurship, and that the socioeconomic environment in developed regions tends to encourage entrepreneurial ambition and innovation, providing a more conducive ecosystem for budding entrepreneurs [and that the opposite is likely to be true in developing countries] (Quote 80, Table 58). The students argued that the community settings provide rich, dynamic environments where aspiring entrepreneurs can learn, practice, and refine their skills, regardless of how small or big these communities were.

Table 58: The Role of Community in the Development of Entrepreneurship Skills

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|--|--|--|---|--|--|--|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Supports: The Role of Community | | | | | |
| | | Importance of Environmental Awareness and Market Knowledge | | | | | |
| 78 | Student 2, BCU1 | "I do think that this environment here has contributed to building some of these skills. For example, creativity for me was built in youth clubs that I attended when I was younger which was supported by institutes and over local businesses and through those other opportunities that I've had through the environment. I was able to gain school scholarships and leadership and critical analysis when I was in school as well. And yeah, having these influences around you ... what you want to do in the future ... it is like for example role models." | "creativity for me was built in youth clubs that I attended when I was younger ... [and] other opportunities that I've had through the environment" | Discusses how various community and educational experiences contribute to developing entrepreneurial skills such as creativity, leadership, and critical analysis. | Community influence, Skill development, Role models | Impact of Community and Education on Skill Development | Role of Market and Environmental Awareness in Entrepreneurship |
| 79 | Student 6, MUBS and BCU Combined | "Being an entrepreneur, you need to be well informed about the environment, you need to know the people that you are going to exactly target when starting up a business. You need to know the community you are going to target and the people that are going to be your customers, and then you need to be informed about the various things that are happening in the world" | "You need to know the community you are going to target and the people that are going to be your customers, and then you need to be informed about the various things that are happening in the world" | Emphasises the importance of environmental awareness, market knowledge, and community understanding in entrepreneurship. | Market knowledge, Community understanding, Environmental awareness | Importance of Market and Environmental Awareness | |
| 80 | Student 9, MUBS and BCU Combined Group | "I feel it's more about the development of the country because the more developed a country is the more culture bends towards the leniencies because you're surrounded by more people who you can look up to or that will help you move forward..." | "The more developed a country is the more culture bends towards the leniencies ... that will help you move forward". | Suggests that cultural attitudes toward entrepreneurship are more supportive in developed countries, facilitating greater entrepreneurial ambition and support networks. | Cultural attitudes, Development level, Support networks | Impact of Development Level on Entrepreneurial Culture | |
| 81 | Student 2, MUBS and BCU Combined | "I believe at university - you are prepared for the real business world by being given valuable information. However, effectiveness comes from being exposed to external factors. For example, when I joined Nakasero market, I engaged with people who had started similar businesses, and this interaction boosted my ability to push forward the business." | "... effectiveness comes from being exposed to external factors." | Highlights the role of university education in providing foundational knowledge while emphasising the importance of real-world engagement and networking for entrepreneurial success. | Foundational knowledge, Real-world engagement, Networking | Bridging Education with Practical Experience | |

i. The University as a Community in Shaping Entrepreneurship Skills

The focus groups revealed that universities function as crucial “communities” that foster entrepreneurship skills. One of the ways in which they act as communities was the flexibility of educational models, such as the one at MUBS which allows students to engage in entrepreneurial ventures while pursuing their studies. According to Student 5 from MUBS and BCU Combined, these universities communities not only impart formal education, but also create an environment conducive to entrepreneurship (Quote 82, Table 59) by enabling students to balance academic responsibilities with real-world business activities.

Table 59: The University as a Community in Shaping Entrepreneurship Skills

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------------------|--|--|--|---|--|---|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Supports: The Role of Community | | | | | |
| | | b) University as a Community | | | | | |
| 82 | Student 5, MUBS and BCU Combined | "I can give a clear example like in Makerere University, the teaching model is flexible. It allows a student to study while conducting a business outside the university. Personally, I was studying from 5:30 to 9:30 pm, and the remaining hours I was ready for business. It's all about mindset and goals—what you want to achieve after university." | "... the teaching model is flexible. It allows a student to study while conducting a business outside the university." | Illustrates the flexibility of university schedules that support entrepreneurial activities alongside formal education. | Flexible education, Entrepreneurial mindset, Goal setting | Flexible Learning and Entrepreneurial Mindset | Highlights the role of the Higher Education community in Shaping Entrepreneurship |
| 83 | Student 2, BCU | "Before coming to university, when we were in sixth form, entrepreneurship was just basic information. I feel if I didn't come to university, I wouldn't know the depth of it. The knowledge from the course helps you learn about customers, demand, finances, and digital tools. University is very important because it helps shape your mindset towards entrepreneurship." | "... University is very important because it helps shape your mindset towards entrepreneurship." | Highlights how university education deepens understanding of entrepreneurship beyond basic knowledge, covering customers, demand, and digital tools. | Advanced education, Customer understanding, Mindset shaping | Deepening Understanding through Higher Education | |

e) Government / Policy

Unlike students who mainly dwelled on the effect of culture and family, lecturers perceived government to have the greatest influence on entrepreneurship skills, compared to culture, family background and human capital. This was because, according to lecturers, and rightly so, it is government, through government policy, that encourages a culture of entrepreneurship among the general populace, ultimately influencing student’s perceptions about a need to get involved in starting businesses or even joining entrepreneurship related courses at university.

Lecturer No. 7 from MUBS discusses a recent meeting where the president emphasised the importance of promoting wealth creation through academic courses. The lecturer's statement (Quote 84, Table 60) highlights the need for a policy-driven approach that encourages the infusion of entrepreneurship into traditional academic curricula. The lecturer points out a critical gap – that while academic programmes are designed to impart specific knowledge and skills, they often lack a focus on entrepreneurship, and that this deficiency can eventually lead to challenges such as unemployment, as graduates may be well-versed in their disciplines but lack the entrepreneurial mindset needed to create new opportunities or adapt to dynamic economic environments.

Table 60: Influence of Government / Policy on Entrepreneurship Skills

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|----------|----------------------|---|---|---|--|--|--|
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Government / Policy | | | | | |
| 84 | Lecturer No 7, MUBS | "...the president was meeting the staff last week he was telling them you guys can you use your courses to promote wealth creation. But how can you promote wealth creation using academic programs without having entrepreneurial mind-sets? So, if it is a government policy right from the ministry of education that you guys going to study pharmacy, after studying pharmacy you need to do entrepreneurship to be very competent... but without it, that's why we are having all these [unemployment challenges]." | "... how can you promote wealth creation using academic programs without having entrepreneurial mind-sets?" | Stresses the need for integrating entrepreneurial mindset of lecturers into various academic programs to enhance employability and promote wealth creation. | Entrepreneurial mindset, Academic integration, Wealth creation | Promoting Entrepreneurial Mindset through Policy | Role of Policy in Shaping Entrepreneurship Education |

The lecturers' insights, therefore, reflect a broader policy perspective that calls for integrating entrepreneurial thinking within all fields of study, including those not traditionally associated with business or entrepreneurship, such as pharmacy, for instance. The idea is that fostering an entrepreneurial mindset among students in all disciplines will better prepare them for the workforce, encouraging them to be not only job seekers but also job creators.

f) Digital Landscape and The Role of ICT and Digital Platforms in Entrepreneurship Skills Development

While culture has traditionally been viewed through a geographical lens, the students emphasised the role of social media as an independent factor influencing entrepreneurship today. This shift is partly because social media transcends the traditional "cultural boundaries," which, according to most participants, were previously seen as primarily geographical. Students acknowledged that the days when only those within their

microsystem and mesosystem had a significant impact on their lives are long gone. As students grew older and gained access to phones and the internet, their horizons appear to have expanded, particularly due to the rise of influencers – individuals who become well-known through use of the internet and social media, and typically use celebrity to endorse, promote, or generate interest in specific products, brands, etc., often for payment (Oxford English Dictionary, 2024). Through content generation, these influencers have become a powerful force in shaping individuals' attitudes and behaviours, akin to, if not more important than the influence of people in their hometown or communities. To this end, the focus group discussions revealed a critical role of the entire digital landscape, particularly Information and Communication Technology (ICT) and social media, in shaping and enhancing entrepreneurship skills. The focus group participants provided insights into how digital platforms contribute to entrepreneurial growth by serving as tools for learning, marketing, networking, and skill development.

Participants noted that social media platforms like TikTok, Twitter, Instagram, and Facebook have become indispensable tools for entrepreneurs. Student 6 (MUBS and BCU Combined) highlighted how social media aids in the growth of entrepreneurial skills:

“To a higher extent, social media has helped in the growth on the entrepreneur[ship] skills because there is a high number of people on social media. Then with also the influencers, plus the other companies, you get to learn different things on how to put your business out there for the people to view what you [are] selling or what you’re doing (Student 6, BCU and BCU Combined, Quote 85, Table 61).

This underlines the role of social media as a powerful platform for learning and engagement, where entrepreneurs can market their products, connect with a broader audience and learn from influencers. The idea that social media serves as a valuable educational resource was also supported by Student 5 (MUBS and BCU Combined) who shared how social media platforms provide diverse learning resources that complement traditional education by providing a plethora of learning materials, from e-books to webinars, and ultimately enhancing entrepreneurial skills through continuous learning and constant self-reflection.

“... you can get the same amount of knowledge on social media. University is all in one place, whereas on social media you see multiple aspects such as the E-books they

publish, or the posts and how they interact with their followers and engagement levels." (Quote 88, Table 61).

Indeed, the quest for knowledge and the development of digital entrepreneurship skills through self-driven digital content creation is becoming increasingly important. Student 1 (MUBS and BCU Combined) discussed the significance of creating and managing digital content as an entrepreneur:

"...the internet has done greatly to improve the skills because as someone that follows all these entrepreneurs, you can be learn new skills and be inspired to use different apps to develop your own products and services." (Quote 89, Table 61).

This points to the evolving landscape where entrepreneurs are not just consumers but also creators of digital content, using digital tools to innovate and differentiate their products and services. It is through this iterative process that hands-on digital skills are embedded.

The internet was also identified as a vital resource for learning on-the-go and adapting to market demands. Student 2 (MUBS and BCU Combined) stressed how the internet and social media platforms facilitate learning and skill development in entrepreneurship, by enabling direct engagement with customers and through the provision of real-time feedback, which is crucial for managing and growing a business:

"The internet has played a big role especially in the entrepreneur world ... And you eventually learn entrepreneurship skills on-the-go just by being online." (See full Quote no 86, Table 61).

However, students argued that just the awareness of the market and the digital landscape was not enough. That one ought to have robust digital skills as Student 9 (MUBS and BCU Combined) pointed out:

"You also need to have a lot of digital skills because things are going digital, so you need to know a lot about the digital market and have good social media skills." (Quote 87, Table 61).

This reflects the essential role of digital proficiency in navigating the digital marketplace, understanding customer behaviour, and leveraging digital tools for business success.

i. Inspiring Entrepreneurial Aspirations through Digital Platforms

Finally, digital platforms play a motivational role, inspiring non-entrepreneurs to explore entrepreneurial paths. Student 4 (MUBS and BCU Combined) noted that "*I think the internet and social media has inspired other people that weren't entrepreneurial but have now become [entrepreneurial]...*" (Quote 90, Table 61). This shows that exposure to success stories and entrepreneurial achievements on digital platforms can foster a desire to pursue entrepreneurship among individuals who might not have considered it otherwise. Overall, the findings illustrate that the digital landscape, ICT and social media, plays a significant role in the development of entrepreneurship skills.

Table 61: The Role of the Digital Landscape in Entrepreneurship Skills Development

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | 2nd Order Themes | Aggregate Dimension |
|--|----------------------------------|--|--|--|---|---|---|
| ENTREPRENEURSHIP ECOSYSTEMS | | | | | | | |
| ICT / Digital Landscape / Social Media | | | | | | | |
| 85 | Student 6, MUBS and BCU Combined | "To a higher extent, social media has helped in the growth on the entrepreneur[ship] skills because there is a high number of people on social media. Then with also the influencers, plus the other companies, you get to learn different things on how to put your business out there for the people to view what you selling or what you're doing." | "To a higher extent, social media has helped in the growth on the entrepreneur[ship] skills." | Highlights the role of social media in enhancing entrepreneurial skills by providing platforms for learning, marketing, and engagement. | Social media, Influencers, Marketing skills, Digital engagement | Leveraging Social Media for Entrepreneurial Growth | The internet, ICT and Digital Platforms, especially social media play a very important role in the development of entrepreneurship skills |
| 86 | Student 2, MUBS and BCU Combined | "The internet has played a big role especially in the entrepreneur world for example as a business person, the internet enables you to produce creative shareable content to the audience since you have access to various social media platforms, you are able to post, advertise your business and this captures a lot of attention from the people but also through the internet you have an opportunity to engage with the customers and find out what people are saying about your business. For example, if you do posts let's say on TikTok, Twitter, there is a provision where you get feedback from you clients and this quickly enables you to manage your business. And you eventually learn entrepreneurship skills on-the-go just by being online." | "The internet has played a big role especially in the entrepreneur world ... And you eventually learn entrepreneurship skills on-the-go just by being online." | Describes how the internet and social media facilitate learning and skill development in entrepreneurship, enabling direct engagement with customers and rapid business adaptation. | Social Media, Internet influence, Customer engagement, Digital marketing | Digital Skills and Market Adaptation | |
| 87 | Student 9, MUBS and BCU Combined | "You also need to have a lot of digital skills because things are going digital, so you need to know a lot about the digital market and have good social media skills" | "You also need to have a lot of digital skills because things are going digital, so you need to know a lot about the digital market" | Highlights the critical need for digital skills and market awareness in modern entrepreneurship. | Digital skills, Market awareness, Customer knowledge | Digital Skills and Digital Market Awareness | |
| 88 | Student 5, MUBS and BCU Combined | "Personally, from what I see from my feeds on social media, I follow quite a of social media accounts specifically small business accounts and have noticed the recent trend currently that people have actually started making E-books myself, and in the E-book, they actually highlight the key skills that are required to actually start their own business. So I think you can get just as much knowledge as you need from entrepreneurship [classes at university] but you can also get the same amount of knowledge on social media. University is all in one place, whereas on social media you see multiple aspects such as the E-books they publish, or the posts and how they interact with their followers and engagement levels. I think it is quite important especially nowadays that you should turn to the internet to also see what other people are doing and reflect on your own skills." | "... you can get the same amount of knowledge on social media. University is all in one place, whereas on social media you see multiple aspects such as the E-books they publish, or the posts and how they interact with their followers and engagement levels. I think it is quite important especially nowadays that you should turn to the internet to also see what other people are doing and reflect on your own skills." | Illustrates how social media serves both as a standalone, and as a complementary platform to University education, offering diverse resources for entrepreneurial learning and reflection. | Online learning, Resource diversity, Self-reflection | Enhancing Learning through Digital Resources | |
| 89 | Student 1, MUBS and BCU Combined | "...many entrepreneurs have to make their own content, they have to market themselves and have to open social media sites for their products. I believe the internet has done greatly to improve the skills because as someone that follows all these entrepreneurs, you can be learn new skills and be inspired to use different apps to develop your own products and services. this improves their skill set." | "...the internet has done greatly to improve the skills because as someone that follows all these entrepreneurs, you can be learn new skills and be inspired to use different apps to develop your own products and services." | Emphasises the role of self-driven digital content creation in developing entrepreneurial skills, highlighting the benefits of following other entrepreneurs online. | Content creation, Self-marketing, Digital skill development | Digital Entrepreneurship Skills becoming important | |
| 90 | Student 4, MUBS and BCU Combined | "I think the internet and social media has inspired other people that weren't entrepreneurial but have now become [entrepreneurial] because they can see what other people have done." | "I think the internet and social media has inspired other people that weren't entrepreneurial but have now become [entrepreneurial]..." | Suggests that social media and the internet inspire non-entrepreneurs to pursue entrepreneurship by showcasing success stories and possibilities. | Inspiration, Success stories, Entrepreneurial motivation, Digital inspiration | Inspiring Entrepreneurial Aspirations through digital platforms | |

Note: See Appendix 9.17.1 for clearer quotes

2. SUMMARY OF FOCUS GROUP FINDINGS ON THE IMPACT OF ENTREPRENEURSHIP ECOSYSTEMS ON EE AND ENTREPRENEURSHIP SKILLS

The final and perhaps most critical objective of this research was to examine how entrepreneurship ecosystems influence the selection and effectiveness of EE methods at the participating universities. The findings from focus group discussions revealed that students recognised their entrepreneurial journeys as deeply interconnected with their external environment.

Key elements such as social media, family influence, and real-world challenges were identified as significant contributors to shaping students' entrepreneurship skills and aspirations. Particularly, students consistently highlighted the influence of family background and pre-university experiences in fostering an entrepreneurial mindset. This was credited mainly to early exposure to family businesses and real-world business challenges which were seen as pivotal in developing entrepreneurial skills.

Although Isenberg's domains of the entrepreneurial ecosystem framed the discussion, other factors, such as community, were also highlighted for their role in enhancing entrepreneurial skills. Notably, students emphasised how the role of culture has evolved, with social media now functioning as an independent factor that has huge influence on entrepreneurship. Unlike traditional cultural boundaries, which were often tied to geography, social media transcends these limitations, broadening students' horizons and exposing them to diverse entrepreneurial influences beyond their immediate environments.

Alongside social media, the digital landscape emerged as a critical resource for entrepreneurial learning and entrepreneurship skills development. The findings underscore the significant influence of ICT, particularly the internet and social media, as vital tools in the development of entrepreneurship skills, illustrating how modern ecosystems extend far beyond geographical and traditional cultural boundaries.

5.3.3.4 FINAL THEMES AND KEY INSIGHTS FROM THE QUALITATIVE FINDINGS

While the initial thematic analysis was structured around the predefined research domains of entrepreneurship education (EE), skills, and ecosystems, the final thematic analysis identified several overarching and critical themes that provide comprehensive insights beyond these initial categories. The aggregate dimensions presented here highlight essential elements of entrepreneurship education, including entrepreneurial mindset, curriculum alignment, environmental impacts, institutional support, cultural influences, and digital skills. Each theme is crucial for fully understanding the complexity of entrepreneurship education and the multiple factors affecting its outcomes. These overarching themes will now be explored individually in subsequent sections, ensuring clear, in-depth discussions and targeted recommendations.

THEME 1: ENTREPRENEURIAL MINDSET AND COMPETENCIES

Entrepreneurial success is deeply rooted in an individual's mindset and competencies. The findings highlight a range of cognitive and behavioural traits essential for entrepreneurship, including creativity, problem-solving, opportunity recognition, resilience, and adaptability (Table 62). Creativity and innovation were consistently identified as critical drivers of entrepreneurial success, with students emphasising the ability to disrupt traditional methods and develop novel solutions. This aligns with the notion of "creative destruction" in entrepreneurship (Schumpeter, 1934), where new ideas replace outdated business models. Additionally, students acknowledged the importance of strategic thinking, goal setting, and delegation in executing entrepreneurial ventures effectively.

Another critical aspect was self-efficacy – the belief in one's ability to navigate challenges and drive success. In particular, Lecturers highlighted the need for students to develop reflective skills to identify their strengths and weaknesses, which is crucial for long-term entrepreneurial sustainability. The ability to connect the dots – networking, collaboration, and leveraging support structures – was also widely discussed as an enabler of entrepreneurial success. Universities play a pivotal role in equipping students with these competencies, but the extent of their effectiveness remains a point of discussion.

Table 62: Theme 1 - Entrepreneurial Mindset and Competencies

| Aggregate Dimensions | | Final Theme 1 |
|-----------------------------|---|--|
| 1 | The ability to use a variety of original methods to develop a totally new idea, create and build something from nothing | Entrepreneurial Mindset and Competencies This theme encompasses the essential cognitive and behavioural traits that define entrepreneurial individuals. It includes creativity, problem-solving, strategic thinking, risk-taking, resilience, and self-efficacy. Entrepreneurs must be capable of identifying opportunities, delegating effectively, making decisions under uncertainty, and persisting in the face of challenges. Additionally, strong communication skills and leadership abilities are crucial for navigating the entrepreneurial landscape and engaging with key stakeholders. |
| 2 | The ability to recognise a problem and offer a solution | |
| 3 | The ability to connect the dots, and universities' role in helping students to do so | |
| 4 | The ability to manage and delegate or to identify other individuals who can fill that gap | |
| 5 | Communication is an important means to achieving ones' personal and entrepreneurial growth objectives, and that it is important to communicate effectively with various stakeholders in one's entrepreneurial journey | |
| 6 | Ability and readiness, to start, organise and sustain a business | |
| 7 | Self-Efficacy and the ability for entrepreneurs to identify their strengths and weaknesses and finding solutions to any existing barriers. | |
| 8 | Entrepreneurship is about the unknown, and the tenacity to find a way to keep going, regardless | |
| 9 | Mindset and Psychological Factors in Entrepreneurship | |

THEME 2: SKILLS AND PEDAGOGY MISMATCH

The findings (Table 63) reveal a significant gap between the skills imparted in entrepreneurship education and the demands of the entrepreneurial ecosystem. Many students and lecturers expressed concerns that curricula often prioritise theoretical knowledge over practical, hands-on experience. Bureaucratic inefficiencies in curriculum design were identified as a major hindrance, leading to slow adaptability of entrepreneurship programs to industry trends.

Experiential learning emerged as a key strategy to bridge this gap. The effectiveness of different pedagogical approaches – curricular, co-curricular, and extracurricular – was widely debated. Extracurricular activities were perceived as the most effective for developing entrepreneurial skills, as they provided students with real-world exposure. Conversely, curricular approaches were often criticised for being overly theoretical, although some participants acknowledged that foundational knowledge remains essential.

This highlights the ongoing debate in entrepreneurship education regarding the balance between theoretical knowledge and experiential learning (Neck and Greene, 2011).

Table 63: Theme 2 - Skills and Pedagogy Mismatch

| Aggregate Dimensions | | Final Theme 2 |
|-----------------------------|---|--|
| 10 | Perceptions and institutional Reputation in Entrepreneurship Education and Quality | <p>Skills and Pedagogy Mismatch</p> <p>The effectiveness of entrepreneurship education is often challenged by misalignments between curricula and industry needs. Institutional constraints such as bureaucratic curriculum design, traditional pedagogical approaches, and a lack of industry alignment contribute to a skills gap between what universities teach and what the entrepreneurial ecosystem demands.</p> <p>This theme explores the effectiveness of different teaching approaches, including experiential learning, practice-based education, and co-curricular activities, in bridging this gap.</p> |
| 11 | Skills Mismatch in Entrepreneurship Education, caused by bureaucracies in curriculum design and a superiority complex by academics at the universities | |
| 12 | Curricular methods seen as an effective Entrepreneurship Education Method, particularly as they are deemed to made insulate students against industry business challenges | |
| 13 | Self-Driven, Experiential Learning and Practical Application of Skills | |
| 14 | Emphasis on Practice-Based Learning | |
| 15 | Co-curricular is effective in integrating theory with practice. | |
| 16 | Determinants of entrepreneurship Education | |
| 17 | Highlights the role of the Higher Education community in Shaping Entrepreneurship | |
| 18 | Role of Policy in Shaping Entrepreneurship Education | |
| 19 | Niche Skills development and Teamwork in Entrepreneurship | |

THEME 3: THE ROLE OF ENVIRONMENTAL FACTORS IN EE AND PEDAGOGY

Entrepreneurship does not occur in isolation but is deeply influenced by external environmental factors. Students and lecturers highlighted the significance of financial access, policy frameworks, and broader socio-economic conditions in shaping entrepreneurial outcomes (Table 64). The data suggests that MUBS students are more attuned to their entrepreneurial ecosystem, likely due to Uganda's necessity-driven entrepreneurial culture. In contrast, BCU students displayed varied levels of awareness, reflecting differences in entrepreneurial exposure and institutional support structures.

Lecturers at both universities acknowledged the critical role of universities in creating networking opportunities, facilitating market linkages, and fostering adaptability. However, institutional constraints often limit the extent to which universities can integrate real-world entrepreneurial exposure into their curricula. The findings align with institutional theory

(Scott, 2005), which posits that entrepreneurship is shaped by broader regulatory, cognitive, and normative structures.

Table 64: Theme 3 - The Role of Environmental Factors in EE and Pedagogy

| Aggregate Dimensions | | Final Theme 3 |
|----------------------|---|--|
| 20 | Significant role of the entrepreneurship ecosystem and environmental factors in shaping entrepreneurship skills | The Role of Environmental Factors in EE and Pedagogy Entrepreneurship does not operate in a vacuum; it is shaped by the broader ecosystem, including financial access, markets, policies, and external support structures. This theme examines the influence of external environmental factors on entrepreneurship education and skill acquisition, highlighting how different ecosystems shape entrepreneurial outcomes and the pedagogical strategies used to equip students for real-world challenges. |
| 21 | Environmental Influence on Entrepreneurship | |
| 22 | Finance affects entrepreneurship skills | |
| 23 | Leveraging External Resources and environment | |
| 24 | Role of Diversity, university environment and exposure in shaping entrepreneurship | |
| 25 | Role of Market and Environmental Awareness in Entrepreneurship | |

THEME 4: UNIVERSITY ENVIRONMENT AND SUPPORT STRUCTURES

The role of universities in shaping entrepreneurial aspirations and capabilities emerged as a major theme. The findings suggest that institutional policies, community engagement, and soft skills development significantly influence students' entrepreneurial trajectories (Table 65). Flexible learning models, such as those at MUBS, were seen as conducive to fostering entrepreneurial activities alongside formal education. Students valued opportunities to test their entrepreneurial ideas in a low-risk academic environment before transitioning to full-scale ventures. Interestingly, there were significant differences in how students perceived the influence of family and community versus the university environment. While some students attributed their entrepreneurial aspirations to their academic experiences, others cited real-life exposure and family influence as more impactful. This underscores the multifaceted nature of entrepreneurial learning, where formal education and informal, lived experiences intersect.

Table 65: Theme 4 - University Environment and Support Structures

| Aggregate Dimensions | | Final Theme 4 |
|----------------------|--|--|
| 26 | Role of Higher Education in Shaping entrepreneurship mindsets, that lead to students actually starting their own businesses or expanding family businesses | University Environment and Support Structures Higher education institutions play a pivotal |

| | | |
|----|---|--|
| 27 | Role of Higher Education in enhancing soft skills | <p>role in shaping students' entrepreneurial aspirations and capabilities.</p> <p>This theme focuses on the role of universities in fostering entrepreneurship mindsets through institutional policies, community engagement, networking opportunities, and soft skills development. It also contrasts the influence of university environments with family and community support systems, emphasising the need for adaptability and flexibility in entrepreneurial education.</p> |
| 28 | The role of the University Environment vs The Family and Community in Shaping Entrepreneurship aspirations | |
| 29 | Role of community and university institutional support structures in shaping entrepreneurship | |
| 30 | Acknowledgement that the university environment and the external ecosystem are different, and to succeed requires flexibility and adaptability. | |

THEME 5: CULTURE AND ENTREPRENEURIAL RESILIENCE

Cultural background plays a defining role in shaping entrepreneurial inclinations and resilience. Students from diverse backgrounds highlighted how societal norms, early exposure to business, and family expectations influence their approach to entrepreneurship (Table 66). Some participants described cultural resilience as a driving force behind their entrepreneurial pursuits, particularly those from ethnic minority communities who felt the need to "push harder" to succeed. Conversely, cultural barriers were also evident. Some students reported experiencing societal stigma associated with entrepreneurship, particularly in cases where family expectations favoured traditional career paths. The role of cultural adaptation in navigating diverse market environments was also discussed, reinforcing the importance of cultural intelligence in entrepreneurial success.

Table 66: Theme 5 - Culture and Entrepreneurial Resilience

| Aggregate Dimensions | | Final Theme 5 |
|----------------------|--|---|
| 31 | The cultural background of students before they come to university affects the extent to which they are likely to be entrepreneurial due to prior experiences. | <p>Culture and Entrepreneurial Resilience</p> <p>Cultural background significantly influences entrepreneurial inclinations and behaviours.</p> <p>This theme explores how social norms, prior experiences, and familial influences shape students' attitudes toward entrepreneurship. Additionally, it examines how cultural and social contexts contribute to resilience, adaptability, and the ability to navigate challenges in entrepreneurial endeavours.</p> |
| 32 | Resilience as a result of cultural and Social Influences | |
| 33 | Family has a strong influences on the development of practical entrepreneurship skills and attitudes. | |

THEME 6: DIGITAL SKILLS AND TECHNOLOGICAL ADAPTATION

The digital landscape is increasingly becoming a defining factor in entrepreneurial success. Students and lecturers recognised digital literacy as a vital competency, with many arguing that entrepreneurs without digital skills risk obsolescence (Table 67). However, there were significant regional disparities in digital adoption. While BCU students highlighted the advanced digital infrastructure in the UK as an enabler of digital entrepreneurship, MUBS students and lecturers pointed out infrastructural challenges that hinder digital business adoption in Uganda.

Social media and online platforms were also widely acknowledged as transformative tools for marketing, networking, and business scaling. Some students even suggested that social media could serve as an alternative learning platform to traditional entrepreneurship education, further reinforcing the need for universities to integrate digital competencies into their curricula.

Table 67: Theme 6 - Digital Competencies in Entrepreneurship

| Aggregate Dimensions | | Final Theme 6 |
|----------------------|---|---|
| 34 | Digital skills are invaluable. Any entrepreneur without digital skills will soon be rendered irrelevant | Digital Competencies in Entrepreneurship In an increasingly digital world, digital literacy is a fundamental entrepreneurial skill. This theme addresses the growing importance of digital tools, ICT, and social media in shaping entrepreneurship. Entrepreneurs without strong digital competencies risk being left behind in competitive markets. This theme explores how digital platforms facilitate business growth, market access, and innovation. |
| 35 | The internet, ICT and Digital Platforms, especially social media play a very important role in the development of entrepreneurship skills | |

5.4 SUMAMRY OF THE FINDINGS CHAPTER

The qualitative findings provide rich insights into the complex interplay of entrepreneurial mindset, pedagogy, environmental factors, and institutional support structures. The study highlights critical disparities in how entrepreneurship is taught and experienced across different contexts, underscoring the need for a more integrated and adaptive approach to entrepreneurship education. While experiential learning and real-world exposure are highly

valued, they must be complemented by a solid theoretical foundation to ensure well-rounded entrepreneurial preparedness.

Furthermore, the findings illustrate how cultural and environmental factors shape entrepreneurial aspirations and opportunities. The university environment, while instrumental in skill-building, is only one piece of the puzzle. Broader socio-economic structures, digital transformations, and family influences play equally significant roles in shaping entrepreneurial pathways.

As we transition into the next chapter – the discussion of findings – these insights will be critically examined in relation to existing literature and theoretical frameworks. The discussion will explore the implications of these findings for entrepreneurship education, policy, and practice, offering recommendations for creating a more holistic and effective entrepreneurial learning ecosystem.

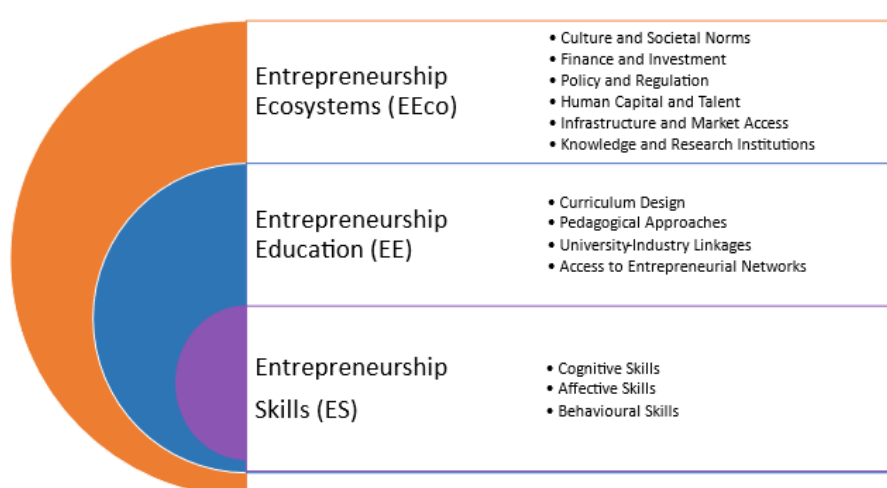
6. DISCUSSION OF FINDINGS

6.1 INTRODUCTION TO THE DISCUSSION CHAPTER

Building on the discussions in the literature review, this chapter critically integrates and analyses key findings from the survey data and focus group discussions conducted with students and lecturers from both universities. It examines the dynamic interplay between entrepreneurship skills, entrepreneurship education (EE) methods, and entrepreneurship ecosystems, offering insights into how institutional, cultural, and environmental factors influence EE effectiveness and students' entrepreneurial competencies. By comparing EE practices within two distinct entrepreneurship ecosystems, this chapter explores variations in pedagogical approaches and their impact on skill development.

The discussion is structured around three core research domains, as identified and evolved from the literature review (Figure 57); Entrepreneurship Skills – examining key entrepreneurial competencies and the factors influencing their progression; Entrepreneurship Education Methods – evaluating the effectiveness of various pedagogical approaches in fostering entrepreneurial learning; and Entrepreneurship Ecosystems – Examining the role of external environments in shaping EE delivery and skill acquisition.

Figure 49: Literature review conceptual framework: exploring the interplay between the entrepreneurship ecosystem, teaching methods, and entrepreneurship skills (Source: Own Compilation)



This structure ensures a systematic and coherent discussion, linking the findings to the research objectives, theoretical frameworks, and gaps identified in the literature. By critically reflecting on how these findings

contribute to theoretical and practical debates in EE, the chapter highlights key implications for policy and practice while shaping the study's overall argument regarding the effectiveness of EE in different contexts.

6.2 ENTREPRENEURSHIP AND ENTREPRENEURSHIP SKILLS

One of the core objectives of this research was to assess the extent to which students at the participating universities were perceived to possess entrepreneurship skills. As part of the triangulation approach, this section synthesises findings on entrepreneurship skills by drawing on both survey data and focus group discussions with students and lecturers from both BCU and MUBS.

a) Definition and Perceived Understanding of Entrepreneurship

Despite the distinct entrepreneurial landscapes of the UK and Uganda, students and lecturers across both institutions demonstrated a shared understanding of entrepreneurship, emphasising innovation, creativity, business initiation, and opportunity recognition. These findings align with established definitions in the literature (Schumpeter, 1934; Drucker, 1985; Shane and Venkataraman, 2000). However, students introduced a more nuanced perspective, highlighting "problem-solving" and "decisive action" as central to entrepreneurship. This resonates with Sarasvathy's (2001) theory of effectuation, which stresses adaptability in uncertain environments.

Lecturers, on the other hand, extended the entrepreneurship narrative to include resilience, self-starting tendencies, and business sustainability – qualities associated with long-term entrepreneurial success (Bandura, 1997; Lumpkin and Dess, 1996; Kuratko, 2005). This distinction is particularly relevant in Uganda's necessity-driven entrepreneurial landscape (GEM, 2023), where entrepreneurial activity often emerges out of economic necessity rather than innovation-led opportunities, as seen in the UK (Mazzucato, 2011). The contrast mirrors global entrepreneurship variations, such as India's "jugaad" innovation, which prioritizes frugality and adaptability (Radjou et al., 2012).

b) Perceived Value and Relevance of Entrepreneurship Skills as Proposed by The QAA

The QAA (2012, 2018) framework on entrepreneurship competencies received strong endorsement from both students and lecturers. Creativity and innovation were universally acknowledged as crucial, echoing Schumpeter's (1934) theory of Creative Destruction. Leadership and management, emphasised by lecturers, aligned with Kuratko's (2005) perspective on entrepreneurial leadership. Notably, Ugandan lecturers placed greater

emphasis on "starting and sustaining" businesses, underlining the need for resilience and long-term strategic planning (Brush, 2014).

However, distinct differences emerged. Students prioritised leadership, risk-taking, and networking, aligning with the EU's Entrepreneurship Competence Framework (Bacigalupo et al., 2016), which highlights networking as key to resource mobilisation. Conversely, lecturers focused on self-efficacy and teamwork, emphasising the importance of confidence and collaboration in entrepreneurial ventures (Bandura, 1997).

The role of digital skills also surfaced as a key theme. Students acknowledged the growing significance of digital proficiency in the Fourth Industrial Revolution (Schwab, 2017). However, Ugandan lecturers expressed scepticism about its urgency due to infrastructural constraints. This reflects broader concerns about digital divides (Van Dijk, 2020) and underscores the necessity of context-sensitive curriculum development in entrepreneurship education (Abaho et al., 2024; Kituyi et al., 2024).

c) Expanding the Skills Gap: Industry Valuation of Non-QAA Skills

This study highlights a critical gap in entrepreneurship education: the underrepresentation of risk-taking and networking – two competencies highly valued by industry. Risk-taking is widely recognised as essential for navigating uncertainty (Kuratko, 2005; Shane and Venkataraman, 2000), while networking is instrumental in resource access and collaboration (Granovetter, 1973; Elfring and Hulsink, 2003). Universities tend to prioritise traditional business skills over experiential competencies, a misalignment echoed in recent studies (Schimperna et al., 2022; Hahn et al., 2020; Ilonen, 2021). Given the increasing complexity of entrepreneurial landscapes, integrating risk-taking and networking into EE curricula would enhance student preparedness for real-world challenges.

d) Entrepreneurship Skills: Lecturer Ratings vs. Student Self-Assessments

Self-assessment data revealed that students rated their entrepreneurial competencies higher than lecturers did, suggesting a confidence-competence gap (Fayolle and Gailly, 2008). This misalignment was particularly stark at MUBS, reflecting Uganda's deeply ingrained entrepreneurial culture (GEM, 2013). While higher self-perceptions indicate

confidence, aligning student perceptions with actual skill levels remains crucial for effective education (Flavell, 1979; Schraw and Dennison, 1994).

Discrepancies also surfaced in specific competencies. Both students and lecturers emphasised action and reflection (Kolb, 1984; Politis, 2005). However, creativity, critical analysis, and opportunity evaluation were underrepresented in student responses, highlighting potential curriculum gaps. Notably, digital and data skills were perceived differently across regions. UK students recognised their importance, whereas Ugandan lecturers downplayed their relevance due to infrastructural limitations.

e) Skills vs. Mindsets

A key theme emerging from the discussions was the interplay between entrepreneurial skills and mindsets. Ugandan respondents frequently referenced "mindset," reflecting national discourse on youth unemployment and entrepreneurship (Baluku et al., 2018). This aligns with psychological approaches to entrepreneurship, which stress ambition and self-efficacy (Bandura, 1997; Krueger et al., 2000).

f) Skills Mismatch: University Qualifications vs. Employer Expectations

Findings revealed a persistent mismatch between university curricula and employer expectations, particularly in Uganda. Lecturers criticised private universities for prioritising enrolment over quality, leading to an influx of underprepared graduates. Additionally, many lecturers acknowledged their lack of direct entrepreneurial experience, further hindering their ability to teach practical skills. These findings echo broader critiques of static university curricula (Rae and Carswell, 2001; OECD, 2019).

Summary: This research confirms that while students and lecturers recognise the importance of entrepreneurship skills, a gap remains between educational training and industry needs. The overconfidence of students in their abilities, combined with structural barriers such as outdated curricula and inadequate digital infrastructure, highlights the need for urgent reforms in entrepreneurship education. Given the rapid technological shifts impacting industry, failure to adapt EE curricula risks widening this gap further, calling into question the long-term relevance of university-based entrepreneurship training (Oreopoulos and Petronijevic, 2013; World Economic Forum, 2020).

6.3 ENTREPRENEURSHIP ECOSYSTEMS AND THEIR IMPACT ON ENTREPRENEURSHIP SKILLS AND EDUCATION

One of the key objectives of this research was to examine how entrepreneurship ecosystems shape the selection and effectiveness of entrepreneurship education (EE) methods at the participating universities. The findings reveal that while both BCU and MUBS recognise the importance of entrepreneurship ecosystems in skill development, significant contextual differences exist in how these ecosystems influence educational practices. This section critically analyses these findings, linking them to the research aims and highlighting key implications for entrepreneurship education.

a) The Role of Policy and Finance in Shaping EE

The findings indicate a marked difference between students and lecturers in their awareness of policy and financial support mechanisms within their respective ecosystems. MUBS lecturers emphasised the impact of regulatory frameworks and financial constraints on entrepreneurship more than their BCU counterparts, reflecting Uganda's more challenging entrepreneurial environment. Financial constraints were repeatedly cited as a major obstacle for entrepreneurs, particularly first-time founders, who often struggle to access formal financing (Fairlie and Fossen, 2018; Bruton et al., 2021).

In Uganda, the limited availability of formal financial instruments, such as venture capital and bank loans, forces many entrepreneurs to rely on informal mechanisms like community Savings and Credit Cooperative Organizations (SACCOs) (Nuwagaba and Han, 2024). This reliance on informal financing structures underscores the need for EE curricula at MUBS to integrate financial literacy tailored to the local context, equipping students with the knowledge to navigate alternative funding pathways. Conversely, BCU students benefit from a more structured financial ecosystem, where institutional support and investment-driven entrepreneurship are more prevalent (Mason and Brown, 2014). The contrast between these two environments suggests that EE curricula must be localised, ensuring that students acquire financial skills relevant to their economic context rather than adopting a one-size-fits-all approach.

b) Support, Markets, and Human Capital in EE

The study highlights that human capital, support structures, and market accessibility significantly shape entrepreneurial skills, though their impact is perceived differently at BCU and MUBS. MUBS students and lecturers rated access to skilled educators and mentors as a crucial determinant of entrepreneurial success, reflecting the scarcity of high-quality mentorship in Uganda's evolving ecosystem (Audretsch and Belitski, 2017). By contrast, BCU students, embedded in a more established entrepreneurial ecosystem, benefited from a range of structured incubation and mentorship programs, reducing their perceived reliance on individual mentorship.

A notable discrepancy emerged in how support systems were perceived. While lecturers, especially those at MUBS, viewed support more holistically – encompassing financial aid, institutional assistance, and policy frameworks – students tended to equate support primarily with academic guidance and mentorship. This suggests a gap in students' understanding of the broader support landscape within their ecosystems. Addressing this disconnect requires universities to create more explicit links between entrepreneurship courses and real-world ecosystem components, ensuring students understand the full spectrum of resources available to them.

c) Cultural and Societal Influences on EE

Culture emerged as a significant factor influencing both educational practices and entrepreneurship skills, with MUBS participants emphasising cultural and societal influences more than their BCU counterparts. The strong role of familial expectations, societal norms, and community-based entrepreneurship in Uganda reflects findings from prior research, which suggests that entrepreneurial tendencies are often shaped by deeply embedded cultural values (Shane, 1992; Liñán and Fernandez-Serrano, 2014).

An important nuance in the data was the role of international students at BCU, who highlighted the challenge of navigating entrepreneurship in a foreign cultural context. Many reported difficulties in adapting to new UK market expectations, reinforcing the need for culturally inclusive EE curricula.

Similarly, in Uganda, where tribal and regional identities play a critical role in business practices, educators must consider how cultural diversity shapes students' entrepreneurial outlooks. As highlighted by one of the lecturers at MUBS, some cultural norms and family influences encourage entrepreneurial activities, while others may, in fact, inhibit them by promoting more conventional career paths (Dana, 1995). For instance, in some traditional Ugandan communities, parents and families may perceive entrepreneurs – as well as artists and sports personalities – as uneducated or less prestigious compared to traditional professions such as Engineering, Medicine or Law. This perception can discourage young individuals from pursuing entrepreneurial careers (Davidsson and Honig, 2003; Basu and Virick, 2008). This dual impact of culture – both as an enabler and a barrier – suggests that EE programs should incorporate culturally nuanced approaches to teaching entrepreneurship. Universities must develop case studies and experiential learning opportunities that reflect the lived realities of their students, whether through globalised perspectives at BCU or regionally specific entrepreneurship models at MUBS.

d) The Influence of Family, Community, and Religion

This study highlights the critical role of pre-university experiences in shaping students' entrepreneurial behaviours. MUBS lecturers frequently noted that students from entrepreneurial families displayed more developed business acumen, benefiting from early exposure to enterprise management and decision-making. This aligns with findings that entrepreneurial intent is significantly influenced by family background (Gibb, 2002; Chrisman et al., 2005). However, while the family unit is instrumental, the findings suggest that broader community also plays a vital role in entrepreneurship. Students and lecturers submitted that it is the wider community that often provides networks of support, resources, and opportunities for collaboration that extend beyond what a family can offer. In this context, understanding and engaging with community needs can be a catalyst for entrepreneurial action. This aligns with the concept of social entrepreneurship, where addressing societal challenges within the community can result in viable and impactful business ventures (Dees, 1998; Mair and Marti, 2006). In many cases, community-based needs spur innovation, compelling entrepreneurs to develop solutions that benefit both their businesses and the social fabric of their communities and environment (Short et al., 2009).

In some cases, however, cultural and religious factors were also found to constrain entrepreneurial choices. For instance, Muslim students at MUBS reported that religious restrictions limited their ability to engage in certain business activities, such as alcohol sales, presenting unique challenges for EE frameworks in religiously affiliated institutions. These findings emphasise the importance of recognising the intersectionality of culture, religion, and entrepreneurship in educational settings. Universities should design EE curricula that acknowledge and incorporate students' diverse backgrounds, preparing them for real-world entrepreneurial decision-making while respecting cultural constraints.

e) Digital Ecosystem and EE in the UK and Uganda

The digital infrastructure, which encompasses things like broadband networks, data centres, and cloud services, are the backbone for the delivery of education in today's digital age. In the context of EE, a robust digital infrastructure would ensure that educational content, e-learning platforms and entrepreneurial resources are readily accessible. Digital platforms such as online learning environments, MOOCs (Massive Open Online Courses), and other educational technology tools have revolutionised how education is delivered. A robust digital landscape would enable the delivery of entrepreneurship courses that are more adaptive, flexible and accessible to a global audience. For example, platforms like Coursera and edX offer entrepreneurship courses developed by leading universities and taught by global experts. These platforms not only democratise access to education but also allow for personalised learning paths that cater to the diverse needs of modern entrepreneurs (Elia et al., 2020), a desire that was expressed by the participants in the study. Such platforms are key to ensuring that entrepreneurship education is scalable and can reach a broader audience.

Yet, the study, while highlighting this transformative role of digital tools in EE, also highlighted significant disparities between the UK and Uganda in terms of digital infrastructure and access. For instance, universities in the UK benefit from affordable and well-developed broadband connectivity which has significantly advanced in recent years. The government has made substantial investments in expanding gigabit-capable networks to 85% of the country by 2025, with the goal of achieving nearly full coverage by 2030. Currently, over 75% of UK premises have access to gigabit broadband, allowing for faster, more reliable internet, which enhances business and personal activities alike (OFCOM, 2023;

2024). This expansion has been supported through a mix of private sector investments and public funding, particularly in rural areas where broadband connectivity remains a challenge. Additionally, full-fibre networks have been rolled out to nearly half of UK households, with coverage continuing to grow. These networks deliver significantly higher speeds, making digital infrastructure in the UK one of the most competitive in Europe (VETRO, 2024). The government's commitment to projects like Project Gigabit and the Shared Rural Network also ensures that underserved areas can benefit from high-speed internet, further supporting entrepreneurship and innovation across the country (Department for Science, Innovation and Technology, 2023).

In contrast, Uganda's restrictive internet policies, particularly related to taxation, have significantly impacted entrepreneurial activities by increasing the cost of access. In 2021, for instance, the Ugandan government introduced a 12% excise duty on internet data packages, in addition to the existing 18% value-added tax (VAT), bringing the total tax on internet services to 30%. This high taxation makes internet access less affordable, and notably higher than neighbouring countries like Rwanda, Kenya and Tanzania (Freedom House, 2022; Global Dev, 2023). These restrictive policies, alongside periodic social media shutdowns and other regulatory measures (Unwanted Witness, 2015; Netblocks, 2021; Kahunde, 2023), present significant barriers to the effective use of digital tools in education generally, and entrepreneurship education in particular. Without affordable and reliable access to the internet, students and aspiring entrepreneurs are excluded from the vast array of knowledge and mentorship that students highlighted was available through digital platforms, thus limiting their ability to acquire essential entrepreneurship skills, not least digital and data skills.

Role of Social Media in Experiential Learning

Traditionally, culture has been viewed through the lens of geography, but students, especially at MUBS, emphasised the evolving role of social media as an independent factor influencing entrepreneurship today. Social media platforms, particularly through the rise of influencers who engage their followers with entrepreneurial content, have become powerful forces in shaping individual mindsets, aspirations, and behaviours – akin to the influence of local communities or traditional cultural forces.

This evolution reflects a broader trend in which digital platforms have become central to entrepreneurial ecosystems. While Isenberg's Domains of Entrepreneurship Ecosystem Model (2010, 2011) initially conceptualised culture as something deeply tied to geography, modern entrepreneurship is increasingly shaped by global digital communities. Social media platforms such as Instagram, YouTube, LinkedIn, and TikTok provide branding, networking, and mentorship opportunities (Pitt et al., 2021), complementing traditional EE by offering experiential learning opportunities (Neck and Corbett, 2018). Collectively, social media complements traditional EE by providing students with inspiration, real-world insights, and practical knowledge that may not be covered in university curricula (Pisano, 2015).

For instance, students at MUBS highlighted that social media allowed them to learn from successful entrepreneurs and influencers who share their journeys, failures, and lessons in an accessible format. Such engagements help students to develop essential for navigating the complexities of modern entrepreneurial ecosystems. Additionally, the interactive nature of social media offers a platform for experiential learning, which is considered vital for entrepreneurship education (Neck and Corbett, 2018). Unlike traditional learning environments, social media allows students to engage in discussions, participate in global challenges or competitions, and collaborate with entrepreneurs from diverse backgrounds. This global exposure equips students with a broader perspective on entrepreneurship and helps them adapt to the rapidly changing demands of the digital economy.

Social media also facilitates entrepreneurial networking – a key entrepreneurship skill – providing students with opportunities to connect with like-minded individuals and potential collaborators on a global scale. The role of online communities in fostering collaboration and innovation is well documented, with studies showing that social media networks are becoming essential for knowledge sharing and co-creation (Knight and Kulkarn, 2020; Pitt et al., 2021). Platforms like LinkedIn enable entrepreneurs to build professional relationships and gain access to valuable industry resources and advice, further enhancing their entrepreneurship skills and capabilities.

So, while the UK's well-developed broadband network provides a strong foundation for digital learning and online entrepreneurship, Uganda's restrictive internet taxation policies and sporadic social media shutdowns create barriers to digital entrepreneurship education

and limit their ability to leverage these resources. This suggests that while these digital tools are valuable for EE, their effectiveness is contingent on broader infrastructure and policy environments.

Summary: Implications for EE and Future Research

This research confirms that entrepreneurship ecosystems profoundly shape the selection and effectiveness of EE methods. The disparities between BCU and MUBS underscore the necessity of localised EE approaches that align with the realities of each entrepreneurial environment. For MUBS, this means strengthening mentorship programs, integrating financial literacy tailored to informal economies, and addressing cultural and infrastructural constraints, particularly around the digital landscape. For BCU, the focus should be on ensuring students are aware of the full range of ecosystem support available to them and fostering global entrepreneurial perspectives among international students.

A key implication is the need to explicitly integrate ecosystem analysis into EE curricula, equipping students with a comprehensive understanding of how policy, finance, cultural norms, digital landscapes, and market structures impact their entrepreneurial trajectories. Future research should also explore how universities can bridge the gap between student perceptions and actual ecosystem resources, ensuring EE remains both relevant and impactful in varying entrepreneurial contexts. To synthesise these findings, a conceptual model summarising the ecosystem effects on EE is presented in the concluding section of this chapter.

6.4 ENTREPRENEURSHIP EDUCATION

Entrepreneurship education (EE) is widely recognised as a critical mechanism for equipping students with the skills, mindsets, and competencies necessary for entrepreneurial success (Fiet, 2001; Béchard and Grégoire, 2007; Neck and Greene, 2011; Secundo et al., 2018). A key objective of this research was to evaluate the effectiveness of EE at BCU and MUBS and its role in developing entrepreneurship skills. The findings highlight the importance of localised and experiential approaches in shaping students' entrepreneurial capabilities. However, disparities exist in the perceived effectiveness of different teaching methods, reflecting both contextual factors and institutional constraints.

a) The Impact of Teaching Methods on Entrepreneurship Skills

The findings emphasise that entrepreneurship skills are developed through a combination of curricular, co-curricular, and extra-curricular methods. While students from both institutions preferred a blended approach – aligning with student-centred pedagogy (Boomers, 1999; Brown and Atkins, 1988) – notable variations emerged in their preferences and the perceived efficacy of these methods.

i. Curricular Methods

Curricular methods were valued by students at both institutions, particularly at BCU, for providing foundational business knowledge. Lecturers underscored the importance of structured classroom-based learning in equipping students with essential theoretical frameworks. This supports Gibb's (2002) argument that structured education plays a crucial role in building entrepreneurial competencies. However, students at MUBS expressed concerns that traditional lecture-based methods were overly theoretical and detached from real-world business challenges. This highlights the need for more applied learning strategies in developing economies, where entrepreneurship is often necessity-driven (Naudé, 2017).

ii. Co-curricular Methods

Co-curricular methods, which integrate classroom learning with practical applications, were more highly rated by MUBS students compared to their BCU counterparts. This preference aligns with research emphasising experiential learning as essential for entrepreneurship education (Neck and Greene, 2011; Kong, 2021). The significant difference in preference (p

= 0.0265) suggests that MUBS students benefit more from hands-on learning opportunities, which complement theoretical knowledge. However, their effectiveness is contingent on the availability of adequate institutional support, something that remains a challenge in resource-constrained environments.

iii. Extra-curricular Methods

Extra-curricular methods, such as internships, start-up incubators, and business competitions, were rated highest by MUBS students. This students' preference has implications for entrepreneurship skills development. Foremost, extra-curricular activities provide real-world exposure to entrepreneurial challenges and offer opportunities for students to recognise and act on business opportunities in real life and often dynamic environments (Baron, 2006). This aligns with research advocating for experiential learning as a bridge between theoretical education and real-world entrepreneurship (Kolb, 1984; Neck and Greene, 2011). In Uganda, where students often have limited exposure to formal business environments, extra-curricular activities are particularly important in compensating for structural gaps in the ecosystem (Kiggundu, 2002; McMullen, 2011).

Additionally, extra-curricular activities foster essential soft skills such as networking and collaboration, which this research proved are also crucial for entrepreneurial success. However, extra-curricular methods are not just beneficial for skill development. They are also instrumental in shaping entrepreneurial mindsets and behaviours, which this research has also demonstrated to be just as important as the entrepreneurship skills themselves. Indeed, students who engage in real-world business projects through internships or business simulations are more likely to develop the resilience, adaptability and creativity needed to navigate the uncertain and often volatile entrepreneurial landscapes (De Faoite et al., 2003). This experiential exposure would ensure that students are not merely passive learners but active participants in the entrepreneurial process.

These findings reinforce the argument that EE in emerging economies must prioritise practical, hands-on learning opportunities. However, they also highlight a structural challenge: the effectiveness of extra-curricular activities is often constrained by resource limitations and institutional capacity.

b) Addressing the Lecturer-Student Discrepancy in Teaching Method Preferences

A key finding was the significant divergence between students' and lecturers' preferences for teaching methods. While students favoured extra-curricular learning due to its practical relevance, lecturers leaned towards co-curricular methods, citing logistical constraints and practical difficulties of organising and managing these activities in large classes. These include coordinating schedules, securing resources, and ensuring adequate supervision, which can be daunting in particularly under-resourced educational settings, and therefore making them less feasible. The high student-to-lecturer ratio in Uganda (ESSA, 2023) exacerbates these challenges, limiting the feasibility of resource-intensive experiential learning. This discrepancy is well-documented in the literature. Neck et al., (2014) and Biggs (1999) highlight that while experiential learning is highly effective, its implementation can be hindered by institutional constraints.

However, the preference for co-curricular activities among lecturers might also be seen as a pragmatic choice, balancing the need for practical engagement with the realities of large class sizes and limited resources. For instance, co-curricular activities, such as case studies and project-based learning, provide structured yet flexible opportunities for students to apply their knowledge without the extensive logistical demands of fully extra-curricular programmes (Thomas and Brown, 2011). This highlights challenges regarding the various EE methods and the level of autonomy staff have in delivering EE, which remain underexplored in current research.

In a nutshell, the findings illuminate the need for universities to address these logistical challenges so that they are aligned more closely with the student preferences. As well as investing in resources to support extra-curricular activities, such as hiring additional staff, universities could focus on developing partnerships with local businesses for internships, or investing in scalable experiential learning models, such as digital simulation tools and AI-driven entrepreneurship training, which can bridge the gap between pedagogical ideals and practical realities.

c) Customisation of Teaching Methods for Niche Development

A significant insight from this research is that students value teaching methods that cater to their specific entrepreneurial interests and career aspirations. This suggests that EE should move beyond generic business training and towards niche specialisation, allowing students to develop expertise in specific sectors. This highlights the importance of integrating more personalised, niche-oriented approaches into entrepreneurship education, which could significantly enhance the relevance and impact of educational programmes at BCU and MUBS.

However, this research recognises that this approach might present practical and logistical challenges in balancing personalisation with scalability. For instance, it is possible to have countless niches in each class or academic year – each of which would require unique or multiple educational approaches.

Such a challenge notwithstanding, this finding contributes to the literature by emphasising the need for personalised EE pathways, an area that remains underexplored in entrepreneurship education research. While current pedagogical frameworks often emphasise broad-based skill acquisition and general business knowledge (Fayolle and Gailly, 2008; Neck and Greene, 2011), with some going as far as to acknowledge the value of experiential and action-based learning (Rasmussen and Sørheim, 2006), there remains less focus on the importance of tailoring educational experiences to the unique interests and strengths of individual students. This research contributes to filling that gap by demonstrating how personalised learning pathways might better prepare students for entrepreneurial success.

From a practitioner's perspective, and notwithstanding the above logistical challenges, these findings suggest that educational institutions should consider integrating more personalised learning modules and opportunities for niche specialisation within their entrepreneurship programmes. This could involve offering multiple elective courses, facilitating mentorship programmes, and encouraging project-based learning that aligns with students' specific entrepreneurial interests. Such approaches not only enhance the relevance of the students' educational experience but also prepare them more effectively for the diverse challenges of the entrepreneurial landscape (Honig, 2004) in which they are

likely to end up, if they follow their niche. Universities could also leverage AI-driven education models, as seen in initiatives like David Game College's AI-powered teaching programs. These models could enable personalised learning without overburdening faculty, offering a pathway for scalable, tailored entrepreneurship education.

d) Institutional Differences in Entrepreneurship Education Methods

The comparative analysis between BCU and MUBS highlights the influence of institutional context on EE preferences. MUBS students exhibited a stronger preference for extra-curricular methods, reflecting the necessity-driven nature of entrepreneurship in Uganda. Conversely, BCU students placed greater emphasis on curricular and co-curricular learning, reflecting the structured and content-driven approach prevalent in the UK, and aligning with the UK's investment-driven entrepreneurial culture (Trowler, 2010; Bovill et al., 2011). This divergence highlights the importance of ecosystem-aligned EE strategies. In emerging economies, entrepreneurship education must integrate survival-driven business training, while in developed economies, the focus should be on fostering high-growth, innovation-driven entrepreneurship. The findings suggest that a one-size-fits-all approach to EE is inadequate – curricula must be adapted to local economic and cultural conditions.

e) Differences in Entrepreneurship Education by Academic Year of Study

The study found that third-year students at both institutions exhibited a greater preference for experiential and applied learning methods compared to first-year students. This aligns with scaffolded learning theories (Bruner, 1960; Vygotsky, 1978), which emphasise the gradual development of competence through structured exposure. This suggests that EE curricula should be progressively structured, moving from foundational theoretical knowledge in the early years to hands-on, applied learning in later years. First-year students may benefit from introductory experiential modules designed to build their confidence in engaging with entrepreneurship practically.

f) Full-time vs Part-time: The Influence of Study Mode on EE Experiences

The study found that part-time students at MUBS gained significantly different entrepreneurial experiences compared to their full-time counterparts. Part-time students,

many of whom were already engaged in employment, reported that their work experience provided a practical context for applying EE lessons, reinforcing previous research on work-integrated learning (Broadbridge and Swanson, 2006). Conversely, full-time students at BCU, who lacked the same external work experience, relied more on structured academic programs. Given that all students at BCU were full-time, this particular dynamic offers a unique context for examining the entrepreneurial experiences of full-time students. Full-time students typically have more structured and consistent engagement with their academic programmes. They tend to benefit from immersive learning environments and continuous interaction with faculty and peers, which facilitates a cohesive educational experience (Kember, 1999). This immersion can lead to a more theoretical and comprehensive understanding of entrepreneurship. However, and in contrast to part-time students – who form the majority of the student body at MUBS – studies have shown that part-time students, due to their dual roles, often bring practical insights and real-world challenges into their academic learning, thereby enhancing their entrepreneurial skill set (Tinto, 1993; Kember, 1999).

This raises an important consideration – that EE should integrate work-based learning opportunities for full-time students, such as internships and live business projects, to ensure they gain practical exposure. However, while the mode of study – full-time versus part-time – influences student experiences in entrepreneurship education, the study found that it is the interplay of various other factors, including the local ecosystem and cultural context, that more profoundly shapes these experiences. Therefore – given that the full-time versus part-time composition may vary from university to university – recognising and addressing these factors might lead to more effective and inclusive entrepreneurship education strategies that cater to the diverse needs of students (Neck and Greene, 2011) but not disregarding other ecosystem factors.

Conclusion: Towards a More Contextually Responsive EE Model

This research highlights the necessity of contextually responsive entrepreneurship education models. The stark differences between BCU and MUBS illustrate that EE cannot be detached from the broader entrepreneurial ecosystem – it must be deeply embedded within local economic, cultural, and policy frameworks. Key recommendations that emerged include:

- Greater investment in experiential learning, particularly in emerging economies where students benefit from real-world exposure.
- Customising EE to student interests and sectoral niches, leveraging digital-driven models to enhance personalised learning.
- Addressing logistical challenges in extra-curricular learning, including high student-to-lecturer ratios, through digital solutions.
- Integrating work-based learning for full-time students, ensuring they develop practical skills beyond theoretical training.

Future research should also explore how universities can bridge the gap between student learning preferences and institutional constraints, ensuring EE remains both innovative and impactful across diverse contexts.

6.5 SUMMARY OF THE DISCUSSIONS CHAPTER

This chapter critically examined the study's findings in relation to the impact of entrepreneurship ecosystems and entrepreneurship education (EE) on students' skill development at BCU and MUBS. The discussion revealed that while both institutions recognise the importance of entrepreneurial ecosystems, their influence varies significantly due to contextual differences. Policy, finance, cultural norms, market structures, and digital infrastructure were found to shape the entrepreneurial learning experience differently in Uganda and the UK, highlighting the need for localised EE approaches.

In terms of entrepreneurship education, the research underscored the importance of experiential learning, with students favouring extra-curricular and co-curricular methods over purely curricular approaches. However, institutional constraints – such as high lecturer-to-student ratios at MUBS – limit the feasibility of some hands-on methods. The study also highlighted the need for customised EE approaches, acknowledging the growing demand for niche specialization and digital integration in entrepreneurial training.

Overall, the findings emphasise that EE must be contextually responsive, integrating ecosystem dynamics, cultural factors, and technological advancements to remain effective. The next chapter synthesises these findings into key conclusions, reflecting on their implications for entrepreneurship education policy and practice. It also offers practical

recommendations for universities, policymakers, and educators on how to enhance EE and bridge the gap between student learning needs and institutional capabilities. Finally, it outlines areas for future research, ensuring that EE continues to evolve in alignment with global and local entrepreneurial landscapes.

7. CONCLUSIONS AND RECOMMENDATIONS

This research set out to achieve three key objectives:

1. To establish the extent to which students at the participating universities perceived themselves as entrepreneurial.
2. To determine the extent to which students' entrepreneurship skills are developed through entrepreneurship education (EE) at the participating universities.
3. To examine how entrepreneurship ecosystems influence the selection and efficacy of EE methods at the participating universities.

These objectives were explored through the following key research questions:

- i. To what extent do students at participating academic institutions perceive themselves to be entrepreneurial?
- ii. How effective are the current EE methods at these institutions in developing students' entrepreneurship skills?
- iii. How does the entrepreneurship ecosystem influence the selection and efficacy of EE methods at the participating academic institutions?

The literature review in Chapter Two examined entrepreneurship ecosystems, EE methodologies, and the development of entrepreneurial skills. It identified that, while these elements have been extensively studied in isolation, their interconnections remain underexplored. This research sought to bridge this gap through a comparative case study approach. Chapter Three presented a contextual lens through which the study was conducted; Chapter Four detailed the methodological framework; Chapter Five presented the empirical findings; and Chapter Six engaged in a critical discussion, synthesising insights on the characteristics of entrepreneurship ecosystems, the diversity of EE approaches, and the interplay between these dimensions in shaping students' entrepreneurial capabilities.

This Conclusions' chapter shifts from analysing these research areas separately, as done in previous chapters, to an integrated synthesis of the findings. By triangulating data across the core themes, it provides a holistic understanding of how entrepreneurship ecosystems and pedagogical approaches collectively influence entrepreneurship education outcomes.

The conclusions drawn here are structured to directly address the research objectives and questions, ensuring a cohesive alignment with the study's aims.

The chapter also consolidates recommendations for enhancing EE effectiveness through better alignment with ecosystem dynamics. It concludes with the introduction of the **Adaptive Framework for Entrepreneurship Pedagogy**, a conceptual model that encapsulates the study's key insights. This framework offers a strategic lens for future research, practical application, and policy formulation, emphasising a dynamic approach to entrepreneurship education that is responsive to evolving ecosystem conditions.

The structure of this chapter is as follows: the first section presents the overall conclusions, followed by contributions to theory, contributions to practice, and contributions to policy and strategy. The final section introduces the Adaptive Framework, which serves as a foundation for advancing research, educational practice, and policymaking in entrepreneurship education.

7.1 CONCLUSIONS

Through a comparative case study of two institutions, BCU and MUBS, the study has provided critical insights into the interplay between entrepreneurship skills, pedagogy, and ecosystems. The findings highlight key areas of refinement in EE, revealing gaps in existing frameworks and informing the development of the Adaptive Framework for Entrepreneurship Pedagogy, which integrates entrepreneurial skill development, pedagogical innovation, and ecosystem responsiveness.

1. Entrepreneurial Skills: Expanding the QAA Framework

Findings confirm that students at both institutions generally perceive themselves as entrepreneurial, aligning with existing research on entrepreneurial self-efficacy. However, while the QAA framework is widely accepted as a foundational reference for entrepreneurship skills, this study identifies two additional competencies – risk-taking and networking – as essential yet underrepresented components.

Risk-taking is central to navigating uncertainty and making strategic decisions (de-Juan-Ripoll et al., 2021; Ratten, 2024). Students and lecturers emphasised the importance of calculated risk-taking in mitigating entrepreneurial failure and enhancing decision-making. Similarly, networking plays a pivotal role in resource acquisition, opportunity recognition, and venture sustainability. Networks not only provide access to financial and knowledge resources but also serve as conduits for market insights, partnerships, and mentorship (Wang and Fang, 2021).

Given the increasing complexity of business environments, integrating risk-taking and networking into EE curricula is essential. These competencies should not be treated as peripheral skills but rather as core components of entrepreneurship education, warranting explicit inclusion in policy and pedagogy.

2. Entrepreneurship Education: Reconciling Student and Lecturer Perspectives

The study underscores the significance of both content and delivery methods in EE. While students and lecturers acknowledged the role of curricular, co-curricular, and extracurricular methods in entrepreneurship education, divergences emerged in their perceptions of

effectiveness. Students favoured extracurricular approaches as these provided hands-on experience and real-world application. However, lecturers, particularly in resource-constrained environments like Uganda, cited logistical limitations, including large class sizes and inadequate institutional support, which hinder the effective implementation of such experiential methods.

A notable finding was the lack of clarity among lecturers in distinguishing co-curricular from extracurricular methods, which may impact the strategic deployment of both pedagogies. Additionally, the study highlighted students' preference for tailored EE experiences aligned with their specific interests and entrepreneurial aspirations, challenging the conventional one-size-fits-all model of EE delivery. Many students sought niche expertise, suggesting that entrepreneurship education must evolve beyond traditional business models to accommodate diverse pathways.

However, transitioning towards customised EE presents structural challenges. This includes the need for faculty development in differentiated instruction and competency-based learning, alongside institutional investments in technology-enhanced learning. Policymakers must recognise the imperative to move towards flexible and inclusive EE frameworks that prioritise student autonomy while addressing systemic constraints. The Adaptive Framework for Entrepreneurship Pedagogy (Figure 50) responds to this need by advocating for personalised learning pathways that balance student agency with institutional feasibility.

3. Entrepreneurship Ecosystems: Shaping EE and Skill Development

The findings reaffirm that entrepreneurship ecosystems play a determinative role in both skill development and the effectiveness of EE. This study highlights three key domains – Culture, Policy, and the Digital Landscape and Infrastructure – as critical influencers.

a) Culture: The Evolving Role of Social Media, Community and Familial Influence

Culture emerged as a more influential factor at MUBS than BCU, particularly concerning the role of family, community and social media in shaping students' entrepreneurial outlook. Social media, in particular, has become an invisible yet powerful cultural force in EE, influencing entrepreneurial identity, opportunity recognition, and market engagement.

Given its ubiquity across both UK and Ugandan contexts, social media warrants explicit recognition as a pedagogical tool in EE.

Similarly, the findings underlined how community and the socio-cultural context of the students before joining university can impact their entrepreneurial intentions and skills. In particular, the study revealed that family backgrounds played a defining role in shaping students' early exposure to entrepreneurship, particularly in Uganda, where informal sector engagement is widespread. Many students cited family businesses as their primary entrepreneurial training ground, a factor often overlooked in EE policy and curriculum design.

Existing frameworks largely adopt a homogenised approach to EE, neglecting the nuances of entrepreneurial socialisation that differ across contexts (Engidaw, 2021; Lv et al., 2021; Gupta, 2024). This underscores the need for context-responsive EE models that integrate students' prior entrepreneurial experiences into pedagogical strategies, as addressed in the Adaptive Framework for Entrepreneurship Pedagogy. In environments with diverse student populations, such as BCU, it is essential that EE curricula are not only inclusive but also responsive to the unique cultural influences that shape these students' entrepreneurship journeys. This will ensure that the students graduate when they are well-equipped to succeed regardless of the diverse and dynamic market environments.

b) Policy: Bridging Strategic Gaps and Enhancing Alignment

While EE policies in both the UK and Uganda provide a structural foundation, gaps remain in their responsiveness to dynamic industry demands. In Uganda, ICT integration in EE remains at an early stage, limiting students' ability to leverage digital entrepreneurship opportunities. In contrast, the UK's structured regulatory frameworks facilitate a more industry-aligned EE approach. Findings suggest that institutions such as MUBS could benefit from adopting continuous industry-education dialogues, similar to those at BCU, ensuring curriculum adaptability to evolving market needs. Moreover, strategic policy interventions should facilitate resource allocation for experiential learning, particularly in underfunded ecosystems, to enhance student engagement and real-world preparedness.

c) The Digital Landscape: A Critical yet Underdeveloped Domain

This research highlights the transformative potential of digital technologies in EE. Digital platforms – ranging from e-learning tools to digital platforms and social media ecosystems – have emerged as crucial facilitators of entrepreneurship education, particularly in enhancing networking, resource acquisition, and global market exposure. However, Uganda’s nascent digital economy presents significant infrastructural and skills-based challenges (World Bank, 2020; IMF, 2024; Abaho et al., 2024). Despite students' recognition of ICT’s pivotal role in entrepreneurship, EE integration remains limited, highlighting a disconnect between policy intent and practical implementation. Addressing these gaps requires policy interventions that prioritise digital skill-building, infrastructure investment, and the expansion of technology-driven learning environments, as articulated in the Adaptive Framework for Entrepreneurship Pedagogy.

Concluding Reflections and the Adaptive Framework for Entrepreneurship Pedagogy

This study underscores the interconnectedness of entrepreneurial skills, education methods, and ecosystems, reinforcing the need for a holistic and adaptable approach to EE. The insights from this research inform the development of the Adaptive Framework for Entrepreneurship Pedagogy (Figure 50), which integrates the following:

- **Expanded EE Skillset:** Incorporating risk-taking and networking as core competencies.
- **Student-Centred Pedagogy:** Customising EE to align with students' pedagogical preferences, as well as their interests, passions, and entrepreneurial aspirations.
- **Ecosystem Responsiveness:** Embedding community, familial, and digital landscape considerations into EE strategies.

By addressing both structural and pedagogical challenges, this framework offers a dynamic model for enhancing entrepreneurship education in diverse contexts. Future research should explore its practical application, ensuring its scalability and adaptability across different institutional and geographical landscapes.

7.2 CONTRUBUTION TO THEORY

This research builds upon and extends three foundational frameworks in entrepreneurship and entrepreneurship education:

- a) Isenberg's (2010) Six Domains of Entrepreneurship Ecosystems
- b) The QAA (2012, 2018) Framework on Entrepreneurship Skills
- c) The Three Predominant EE Pedagogical Approaches: Curricular, Co-Curricular, and Extra-Curricular

By critically evaluating these models against empirical findings from this research, the study identifies gaps and limitations, particularly in their ability to address:

- i. The evolving role of digital technologies in entrepreneurship ecosystems and education.
- ii. The significance of risk-taking and networking as distinct entrepreneurship skills.
- iii. The need for pedagogical innovations that bridge the gap between students' learning preferences and institutional constraints.

Consequently, the study's key theoretical contribution is the **Adaptive Framework for Entrepreneurship Pedagogy** (Figure 50), which offers a holistic, ecosystem-driven approach to EE by integrating entrepreneurial ecosystems, pedagogical methods, and digital transformation into a unified theoretical model.

7.2.1 The Adaptive Framework for Entrepreneurship Pedagogy: A Coordinated Ecosystem Approach to EE

Traditionally, entrepreneurship education has been treated as a siloed pedagogical field, focusing on classroom-based instruction, business simulations, or case studies (Neck and Greene, 2011; Fayolle and Gailly, 2015). However, this research argues that EE is most effective when conceptualised as an ecosystem-driven process that integrates Students (developing entrepreneurship skills); Lecturers (delivering EE pedagogy); Universities (providing institutional structures and policies); and The Entrepreneurship Ecosystem (external cultural, societal, digital, and economic influences). This multi-layered and adaptive perspective is what distinguishes the Adaptive Framework for Entrepreneurship Pedagogy (Figure 50) from existing models. Unlike traditional approaches that focus

primarily on content delivery (e.g., entrepreneurship courses, business plan competitions), this framework emphasises the importance of context, interactivity, and dynamic adaptation in EE.

A. Defining the Adaptive Framework for Entrepreneurship Pedagogy

Proposed Definition: The Adaptive Framework for Entrepreneurship Pedagogy (Figure 50) is an educational model that fosters creativity, experimentation, and innovation in a controlled yet collaborative environment. Built upon Isenberg's (2010) domains of the entrepreneurship ecosystem, the framework illustrates the dynamic interactions between students, lecturers, universities, and ecosystem forces, offering a holistic, ecosystem-driven approach to EE.

The framework consists of four main components that symbiotically interact with each other, namely **Students** (with a focus on *entrepreneurship skills*), **Lecturers** (with a focus on *entrepreneurship pedagogy*), the **Universities** where students and lecturers are based (including *university guidelines and policies*), and the wider **ecosystem** in which all the above-mentioned players are based.

This novel approach contributes to entrepreneurship theory by:

- i. Providing a visual and conceptual model for understanding how different ecosystem elements interact to shape EE.
- ii. Demonstrating how institutional policies, pedagogical choices, and external factors (e.g., technology, culture, family, digital access) collectively influence entrepreneurship skills development.
- iii. Advocating for adaptive and context-specific pedagogical strategies, rather than static, one-size-fits-all EE models.

B. Theoretical Foundations of the Adaptive Framework

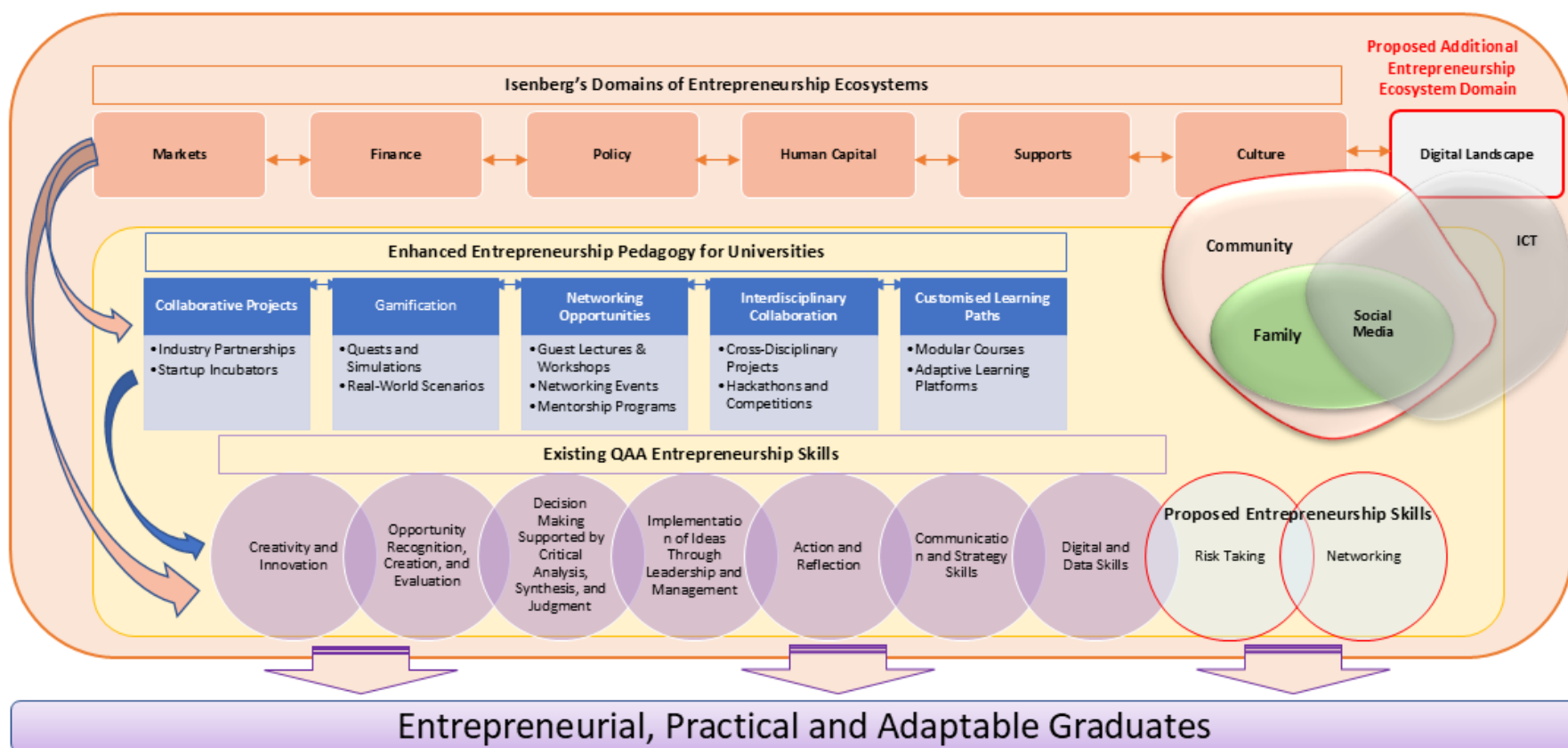
The principles underpinning the Adaptive Framework are supported by several strands of research:

- a) Collaborative Innovation in Higher Education: Oliver et al. (2007) highlight the role of interdisciplinary collaboration in fostering innovation, mirroring the co-creation approach of the Adaptive Framework.
- b) Living Labs and Innovation Sandpits: Bergvall-Kåreborn et al. (2009) discuss Living Labs, which function as user-driven innovation spaces, aligning with the hands-on learning ethos of the Adaptive Framework.
- c) Simulation and Experiential Learning: Kolb (1984) and Kolb and Kolb (2005) emphasise the role of experiential learning cycles, reinforcing the importance of real-world, action-based entrepreneurship education.
- d) Innovation Ecosystems and Co-Creation Spaces: Chesbrough (2003) and Von Hippel (2005) highlight open innovation and co-creation spaces, foundational to the entrepreneurial ecosystem integration proposed in the framework.
- e) EE and Practice: Rae (2007) discusses experiential and action-based learning methods in EE, emphasising the value of practical, real-world experiences. While not explicitly named as the Adaptive Framework, the described approaches align with its principles.
- f) Innovation Sandpits in Research: In the past, the UK Engineering and Physical Sciences Research Council (EPSRC) has implemented "Innovation Sandpits" to encourage multidisciplinary research and problem-solving. This approach, detailed in EPSRC (2011), provides a structured yet flexible environment for developing innovative solutions to complex challenges.
- g) Gamification and Digital Pedagogy – Emerging pedagogical models (Luckin et al., 2016) support the integration of gamification, social media, and digital learning tools in EE

While existing literature recognises some of these elements separately, no prior framework has comprehensively integrated ecosystems, pedagogy, and digital innovation into a unified model that can inform both EE research and practice. The Adaptive Framework fills this gap by offering a multi-layered approach to developing entrepreneurial competencies.

| | |
|---------------------------|--|
| Ecosystem Domains | THE ADAPTIVE FRAMEWORK FOR ENTREPRENEURSHIP PEDAGOGY. The framework highlights the necessity of a holistic approach to entrepreneurship education that acknowledges the complex interplay between the ecosystem, institutional frameworks, teaching methods, and the evolving cultural, community and technological landscape, and how they all affect the development of entrepreneurship skills. An effective framework of this sort, will lead to Entrepreneurial, Practical and Adaptable graduates able to thrive within a dynamic entrepreneurial ecosystem. |
| University Environment | |
| Entrepreneurship Pedagogy | |
| Entrepreneurship Skills | |

Figure 50: The Adaptive Framework for Entrepreneurship Pedagogy



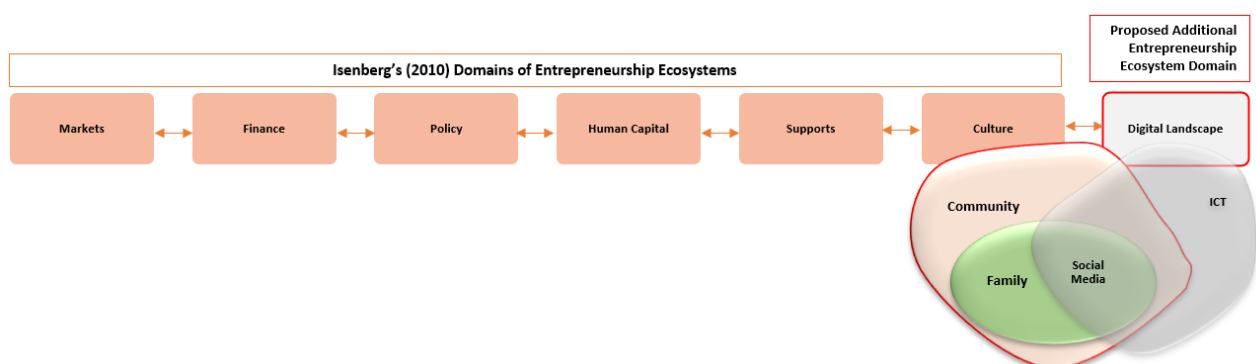
7.2.1.1 Expanding Isenberg's (2010) Entrepreneurship Ecosystem Model

- ***Introducing the Digital Landscape as a New Ecosystem Domain***

This research makes a theoretical breakthrough by identifying the Digital Landscape as a seventh and growing critical domain in entrepreneurial ecosystems. While Isenberg (2010) focused on factors such as finance, Human Capital, markets, culture, and policy, he did not account for the growing role of digital technologies, social media, and online platforms in shaping EE. The Digital Landscape (Figure 51) consists of:

- a) ICT Infrastructure and Internet Access – Directly influences access to entrepreneurial learning, networking, and digital business opportunities (Abaho et al., 2024; Felicetti et al., 2024).
- b) Social Media – Functions as an informal but powerful learning tool, shaping entrepreneurial mindsets even before formal education begins (Felicetti et al., 2024; Kreiterling, 2023).
- c) Regulatory Environment and Digital Governance – Policies on cybersecurity, internet accessibility, and taxation directly impact entrepreneurial engagement (Abaho et al., 2024; Kituyi et al., 2024; Freedom House, 2022; Global Dev, 2023),

Figure 51: Expanded Ecosystem Domains (Adapted from Isenberg's Domains of Entrepreneurship Ecosystems)



Together, these components form the foundation for modern entrepreneurial ecosystems, highlighting the necessity of digital and data skills for entrepreneurial success. By integrating digital ecosystems into EE theory, this research redefines how entrepreneurship skills are developed in an era of digital transformation. While existing guidelines, such as those from

the QAA (2012, 2018), mention the importance of digital and data skills, no other frameworks have explicitly detailed the role of the Digital Landscape within entrepreneurship ecosystems. This research, therefore, makes a novel theoretical contribution by explicitly addressing how the interplay between digital infrastructure, social media, and regulatory governance affects entrepreneurship skills development.

- ***Culture: Broadening the Concept Beyond Isenberg (2010)***

While Isenberg (2010) conceptualised culture as shaped by success stories and role models, the Adaptive Framework expands the definition to recognise and incorporate the role of community, family, and social media influences in imparting Entrepreneurship skills to students. The study established that:

- a) **Community:** Early exposure to side hustles and informal business activities shapes entrepreneurial attitudes, particularly in developing economies.
- b) **Family:** Entrepreneurship is often socialised through family businesses and economic necessity, yet EE models rarely account for this.
- c) **Social Media as a Cultural Force:** As well as being a key part of the ICT domain, and also featuring among key entrepreneurship skills, social media emerged as an important component of culture as it enabled students to connect with other youth and influencers, and learn about what is happening in other foreign cultures and communities. According to the students, this exposure acted as an invisible and influential force in shaping their entrepreneurship skills and interests by providing early exposure to entrepreneurial role models, influencing self-employment aspirations before formal EE begins.

The evidence presented in this research emphasises the need for a holistic approach that recognises the evolving nature of culture in entrepreneurship ecosystems and considers the influence of students' digital, family and community backgrounds. This holistic approach should be adaptable and context-specific, integrating digital and social media components into the EE curricula to address the contemporary dynamics of the wider ecosystems.

7.2.1.2 Advancing the QAA (2012, 2018) Entrepreneurship Skills Framework

This study challenges the existing QAA framework, which outlines seven entrepreneurship skills, by demonstrating that Risk-Taking and Networking should be recognised as distinct and essential skills.

a) Risk-Taking as a Core Entrepreneurial Skill

While the QAA framework subsumes risk-taking under decision-making, this study finds that students and lecturers consistently emphasise risk-taking as a separate competency, equipping students with the willingness to undertake uncertain ventures despite the potential for failure. In the absence of this skill, students note that a prospective entrepreneur would be apprehensive in undertaking an entrepreneurial endeavour for which they perceive uncertainty. The research argues that risk-taking involves:

- Managing uncertainty and failure
- Developing resilience in unpredictable business environments
- Recognising and acting on high-risk, high-reward opportunities

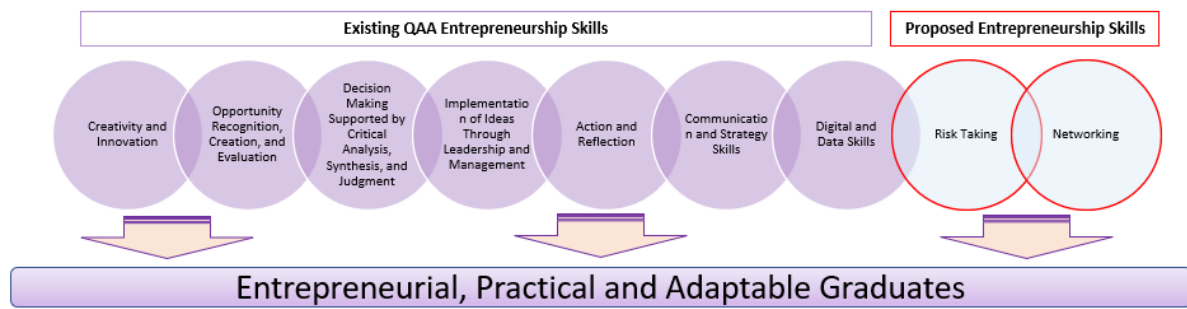
b) Networking as a Foundational Competency

Networking, on the other hand, facilitates the creation of valuable connections, resource acquisition, and knowledge exchange, which are critical for entrepreneurial growth and sustainability. Its importance notwithstanding, networking was not explicitly included among the QAA (2012; 2018) entrepreneurship skills. This study finds that entrepreneurial success is increasingly dependent on the ability to:

- Leverage personal and professional networks for resources
- Build strategic partnerships and collaborations
- Navigate digital business environments through online networking

By expanding the QAA framework (Figure 52), this study offers a more comprehensive and globally relevant model for entrepreneurship skills development.

Figure 52: Proposed Entrepreneurship Skills (Adapted from the QAA, 2012).



7.2.1.3 Bridging Pedagogical Gaps in Entrepreneurship Education

Universities act as key nodes within the entrepreneurship ecosystem, shaping educational policies, curricula and teaching methods. This research identifies a disconnect between students' preference for experiential, digital, and extracurricular learning and lecturers' reliance on traditional, curricular-focused EE methods. The findings suggest that universities influence the entrepreneurship skills through their policies and teaching methods, which need to be responsive to ecosystem dynamics. This aligns with the literature suggesting that adaptive university policies are crucial for effective EE (Neck and Greene, 2011).

In this regard, the comparison between BCU and MUBS reveals differences in institutional approaches, with the latter showing higher flexibility and adaptability in teaching methods compared to the former. This flexibility attributed to university politics respondents, is critical for responding to the dynamic needs of students and the ecosystem. Adaptive policies drive curriculum design, teaching methods, student-teacher ratios, university infrastructure, including the deployment of digital tools. It also facilitates engagement with other players within the wider entrepreneurship ecosystem, such as industry partners.

The research suggests a preference for a combination of curricular, co-curricular, and extra-curricular methods for delivery of EE, with a stronger focus on extra-curricular activities to provide hands-on experience. This aligns with the findings of Fayolle and Gailly (2015) and Kolb (1984), who advocate for experiential learning in helping students apply what they are learning. However, while students preferred a greater focus on extra-curricular methods, lecturers were more comfortable with curricula and co-curricular EE methods. The Adaptive Framework for EE attempts to address this discrepancy by proposing pedagogical approaches that attempt to bridge this gap, responding to the needs and preferences of

both students and lecturers. The Adaptive Framework resolves this by incorporating the following (Figure 53):

a) Collaborative Projects

- **Industry Partnerships:** Collaboration with industry partners in the design of projects that address real-world business challenges to provide students with practical experience and insights into industry dynamics.
- **Startup Incubators:** Establishment of incubators within the institutions where students can develop and test their business ideas with the support of mentors and real industry experts.

b) Networking Opportunities

- **Guest Lectures and Workshops:** Invitation of entrepreneurs, investors or Venture Capitalists, and industry experts to share their experiences and insights through interactive sessions.
- **Networking Events:** Organising events where students can meet and interact with industry professionals, further enhancing valuable connections and collaborations.
- **Mentorship Programmes:** Pairing students with experienced entrepreneurs who can provide guidance, support, and feedback throughout their entrepreneurial journey.

c) Interdisciplinary Collaboration

- **Cross-Disciplinary Projects:** Designing of interdisciplinary course works that encourage students to collaborate on projects requiring diverse skillsets. For example, business students could work with engineering students and medical students on product development. This would provide an all-rounded experiences for the students.
- **Hackathons and Competitions:** Hosting university-wide events that challenge interdisciplinary teams to develop solutions to real-world problems, promoting creativity, teamwork, and entrepreneurial thinking (Oliver et al., 2007). These

competitions should be extended, beyond the university, allowing students to enter into nationwide and global competitions.

d) Customised Learning Paths

- **Modular Courses:** To address logistical challenges, Universities could offer modular courses that allow students to tailor their education to their interests and career goals. These courses should provide flexibility in learning and assessment methods to cater for the varying educational needs.
- **Adaptive Learning Platforms:** Facilitating technology-driven personalisation tools that provide real-time feedback and resources tailored to individual learning paces and needs (Luckin et al., 2016).

e) Adoption of Gamification in Entrepreneurship Education

Students noted that the internet and social media serve as key platforms for learning, networking, and inspiration that transcend the classroom boundaries. Students also demonstrated the desire for extracurricular entrepreneurship education approaches over curricular approaches. To this end, incorporating gaming and gamification elements into EE would significantly enhance learning by aligning with students' preference for extracurricular approaches and leveraging digital infrastructure.

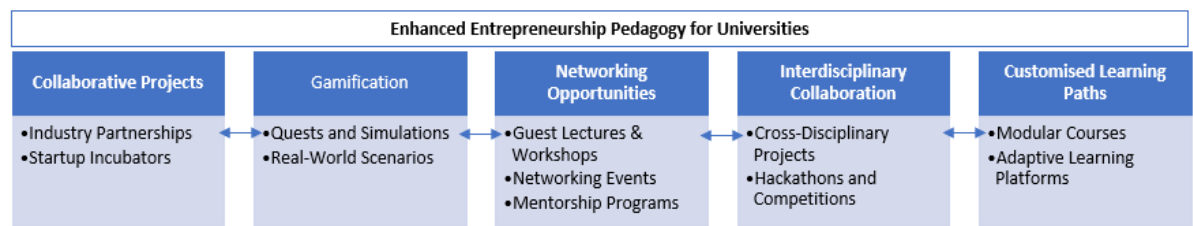
This research proposes the inclusion of gamified elements, such as entrepreneurship quests and role-playing, which would immerse students in startup ecosystems, helping them develop leadership and problem-solving skills through real-world scenarios. Lecturers could also design quests where students act as entrepreneurs and involve them in making key business decisions and navigating real-time societal challenges. These collaborative gamified projects would also foster teamwork, and give the students the chance to launch virtual businesses, provide peer feedback, and learn in a community-driven environment.

Additionally, competitive leaderboards and badges could replace traditional grading systems. This would motivate students to excel by earning points and rewards for completing tasks or mastering entrepreneurship skills at various stages. These verified

achievements could be shared on platforms like LinkedIn, adding a professional dimension to the learning experience.

The benefits of gamification in entrepreneurship education cannot be understated. They would include increased student engagement, as dynamic and enjoyable learning environments keep them motivated. Gamification is also likely to enhance skill acquisition by simulating real-world challenges, promoting creativity, decision-making, and strategic thinking. Moreover, through iterative challenges, students would build resilience and adaptive thinking, and gain practical experience from ideation to execution. Additionally, immediate feedback in gamified settings would allow for real-time adjustments, thereby fostering continuous learning and improvement. Most importantly, this approach moves beyond conventional EE models, advocating for a dynamic, student-centred, and tech-driven learning environment ultimately increasing their interest and engagement throughout the course.

Figure 53: Enhanced Entrepreneurship Pedagogy for Universities



Summary: A New Paradigm for Entrepreneurship Education

By integrating entrepreneurial ecosystems, skills frameworks, and pedagogical innovations, the Adaptive Framework for Entrepreneurship Pedagogy offers a transformational approach to EE theory. This research calls for a paradigm shift, recognising EE as a dynamic, ecosystem-driven process that must evolve in response to digitalisation, changing student expectations, and global entrepreneurial realities.

7.3 CONTRIBUTION TO PRACTICE

The Adaptive Framework (Figure 50) provides a robust foundation for understanding and improving EE in HIEs. In particular, it provides guidance on the following;

- i. Clarity on how the ecosystems contribute to the delivery of entrepreneurship education, and how they impact the acquisition of entrepreneurship skills.
- ii. It guides the development of university policies and pedagogical approaches to EE offering a delicate balance between curricula, co-curricular and extra-curricular EE methods.
- iii. It provides a comprehensive set of entrepreneurship skills that equip students to become entrepreneurial, practical and adaptable graduates.

Some of the above proposed pedagogical approaches, such as experiential learning and the integration of digital tools, are already being implemented or been discussed during recent course revalidation in the College of Business, Digital Transformation, and Entrepreneurship at BCU. However, while there are examples of good practice, a more consistent and intentional implementation of these approaches across all departments could be considered to ensure standardisation across board.

At a national level, The UK government's recently launched Curriculum and Assessment Review (Department for Education, 2024) emphasises the need for a "broader, richer" curriculum that prepares students for life and work, with a focus on cultural learning, foundational skills such as reading, writing, and maths, and emerging priorities such as digital and communication skills. However, while these are welcome, there is a noticeable omission of explicit references to entrepreneurship or enterprise skills, which are crucial in fostering innovation, problem-solving, and adaptability in today's dynamic job market (Neck and Greene, 2011). In response to this gap, the Adaptive Framework for Entrepreneurship Pedagogy offers a significant opportunity to enhance curriculum design by emphasising entrepreneurial ecosystems alongside pedagogical strategies.

7.4 CONTRIBUTION TO POLICY and STRATEGY

Governments traditionally view entrepreneurship ecosystems as mechanisms to enhance business activity, stimulate economic growth, and improve the ease of doing business. However, this research extends this perspective by positioning entrepreneurship ecosystems as fundamental to the development of entrepreneurship education (EE) and entrepreneurship skills. While Isenberg's (2010) six-domain framework includes education under the Human Capital domain, it does not provide sufficient clarity on the type of EE that should be delivered, the pedagogical approaches best suited for EE and the specific entrepreneurship skills required to prepare graduates for dynamic economic landscapes. This research addresses these gaps by integrating EE more explicitly into entrepreneurial ecosystem theory, proposing an Adaptive Framework for Entrepreneurship Pedagogy (Figure 55) that informs policy and strategy for governments and higher education institutions (HEIs).

a) Family and Community: Unpacking the Role of Culture in EE Policy Design

Entrepreneurship policies often emphasise success stories of well-known entrepreneurs, but this research identifies family and community as crucial, yet overlooked, cultural forces shaping early-stage entrepreneurial skills development. In developing economies, students are often introduced to business practices informally through family-run enterprises, side hustles, and community trade. These experiences pre-date formal EE exposure but remain underutilized in university curricula. Additionally, entrepreneurial skills often develop outside of formal education through interactions with mentors, local entrepreneurs, and peer groups.

These nuances should not be ignored in EE policy design. Governments and HEIs should design EE policies that recognise and leverage students' pre-university entrepreneurial exposure; encourage community-based EE initiatives such as local entrepreneurship mentorship programs; and adapt university curricula to integrate students' informal entrepreneurial experiences into formal learning. By embedding cultural and social influences into national EE strategies, policymakers can foster a more inclusive and

responsive EE system that better prepares students for entrepreneurship in their respective economic contexts.

b) Recognising the Digital Landscape as a Core Policy Domain

This research introduces the Digital Landscape as a new domain within entrepreneurship ecosystems, addressing a critical gap in Isenberg's (2010) framework. Unlike existing policy approaches that focus solely on digital infrastructure for business, this research emphasises the role of digital tools in EE and entrepreneurship skills development. The Digital Landscape comprises three key components: ICT Infrastructure and Internet Access – ensuring that all students have digital access to EE resources; Social Media as a Learning Tool – recognising social media's role in entrepreneurship skills acquisition, networking, and industry engagement; and Regulatory Environment and Digital Governance – developing policies that support digital entrepreneurship and online learning.

These findings have several implications for policy initiatives.

- Foremost, governments should integrate digital entrepreneurship education into national policies, ensuring EE curricula include digital business models, e-commerce, and social media marketing.
- HEIs should adopt hybrid learning models that blend online and offline entrepreneurship education.
- Lastly, digital infrastructure investment should be linked to EE policies, ensuring equal access to online learning tools for all students.

By treating the Digital Landscape as a key enabler of entrepreneurship education, governments can enhance EE accessibility, promote digital entrepreneurship, and modernise EE delivery.

c) Strengthening National Pedagogical Policies for EE

The Adaptive Framework for Entrepreneurship Pedagogy (Figure 55) provides a structured policy approach for governments and HEIs to improve the design, implementation, and assessment of EE policies. It outlines key components for EE investment, including:

- i. Collaborative Learning Spaces – Funding for business incubators, living labs, and co-working spaces to promote hands-on entrepreneurial learning.
- ii. Networking Opportunities – Policies that connect students with industry mentors, investors, and entrepreneurial networks.
- iii. Customisable Learning Paths – Enabling universities to offer flexible, student-centred EE programs.
- iv. Interdisciplinary Collaboration – Supporting cross-sectoral learning, where students from business, technology, and creative disciplines co-develop entrepreneurial ventures.

In aligning national EE strategies with the Adaptive Framework, policymakers can create responsive, skills-oriented entrepreneurship education policies that equip graduates with practical, market-relevant competencies.

d) Entrepreneurship Education as a Strategic National Indicator

At a macroeconomic level, governments track entrepreneurship and innovation performance through instruments such as The Global Entrepreneurship Monitor (GEM), The UNDP Human Development Index (HDI) and The Global Innovation Index (GII). This research suggests that the Adaptive Framework could be developed into an interactive benchmarking tool, allowing governments to track and compare national EE capacity by:

- i. Mapping entrepreneurship ecosystem maturity across different countries.
- ii. Assessing the strength of national EE policies, pedagogies, and digital integration.
- iii. Identifying gaps in entrepreneurship skills development relative to economic needs.

Such an instrument would enable policymakers to regularly evaluate and refine EE strategies in response to technological advancements, industry trends, and global best practices.

e) Strategic Recommendations for Governments and HEIs

Based on these insights, the research proposes the following policy and strategy recommendations:

i. For Governments:

- Embed EE in national education policies by incorporating entrepreneurial skill development at all education levels – primary, secondary and tertiary.
- Prioritise digital entrepreneurship education by integrating ICT, social media, and online business models into curricula.
- Develop policy incentives for industry-academic collaboration, fostering entrepreneurial ecosystems where universities, businesses, and policymakers co-create EE programs.

ii. For Higher Education Institutions (HEIs):

- Adopt the Adaptive Framework for EE to create dynamic, ecosystem-aligned entrepreneurship programs.
- Enhance EE infrastructure investment, including startup incubators, networking platforms, and experiential learning spaces.
- Implement digital learning policies that ensure equal access to online EE resources.

Summary: A Transformational Policy Approach to Entrepreneurship Education

This research redefines how EE policies should be designed and implemented. It advocates for a holistic, ecosystem-driven approach to EE that integrates culture, digital transformation, and interdisciplinary collaboration; a structured EE benchmarking system that allows countries to track and compare EE development globally; and a stronger emphasis on digital entrepreneurship education, ensuring that EE policies align with the realities of modern business environments. By leveraging the Adaptive Framework as a policy tool, governments and HEIs can develop, refine, and scale entrepreneurship education strategies that are future-focused, inclusive, and impact-driven.

7.5 RECOMMENDATIONS ON THE IMPLEMENTATION OF THE ADAPTIVE FRAMEWORK

To effectively implement the Adaptive Framework for Entrepreneurship Pedagogy, various stakeholders within the entrepreneurship education (EE) ecosystem must assume distinct but complementary roles. Higher education institutions (HEIs), in particular, are pivotal in shaping curricula, pedagogical strategies, digital integration, and engagement with industry and communities. The following recommendations outline institutional strategies for aligning EE with entrepreneurial ecosystems to ensure students acquire the skills, experiences, and competencies required for success in an evolving entrepreneurial landscape.

7.5.1 EDUCATION INSTITUTIONS

a) Redefining EE Pedagogical Methods and Skills Development

HEIs should adopt a pedagogical approach that reflects the interconnected and dynamic nature of EE, ensuring clarity in teaching methods and entrepreneurship skills development. Specifically, The Adaptive Framework highlights the need for collaborative learning experiences, experiential learning models, networking opportunities, interdisciplinary collaboration, and customisable learning paths.

A crucial enhancement to EE curricula is the explicit inclusion of risk-taking and networking as core competencies. Institutions should embed business simulations, venture-building exercises, and industry collaborations that encourage students to develop a risk-taking mindset and build professional networks in controlled environments. Additionally, curricula should be responsive to industry needs. As a strategic move, advisory panels comprising industry leaders, policymakers, and entrepreneurs should be established to continuously assess and refine entrepreneurship education, ensuring alignment with emerging business trends and skills demands. This would maintain relevance and adaptability of entrepreneurship curricula.

b) Customisation of Education and Development of Niche Expertise

Traditional EE curricula often adopt a one-size-fits-all model, overlooking the diverse aspirations and pre-university entrepreneurial exposure of students. The Adaptive

Framework advocates for a tailored, student-centred approach that aligns EE with students' passions and career goals. Such an approach should also leverage students' family and community entrepreneurial experiences, and provide flexible, modular learning pathways that cater to different entrepreneurial ambitions. Where logistical constraints limit customisation, institutions should invest in adaptive learning technologies that provide personalised learning experiences. Universities should take advantage of AI-driven platforms which can be used to analyse students' learning styles and interests, offering customised course content, project recommendations, and skill development paths.

c) Integrating Gamification into EE

Gamification has emerged as a powerful tool for engaging students and enhancing learning outcomes in EE. By leveraging digital platforms, interactive simulations, and experiential challenges, universities can create immersive learning environments that foster entrepreneurial problem-solving skills through real-world scenarios, encourage competitive learning via leaderboards, quests, and startup challenges, and reinforce risk-taking behaviours by allowing students to experiment with business decisions in the relative safety of simulated settings. To mitigate against the cost implications of such a policy, Universities should collaborate with technology firms and innovative startups to develop custom EE gamification tools that align with regional and industry-specific entrepreneurial challenges.

d) Preparing Lecturers for the “Adaptive” Approach to EE

Implementing the Adaptive Framework requires significant shifts in teaching methodologies. Universities must equip lecturers with theoretical and practical expertise in innovative EE pedagogies (e.g., action learning, gamification, experiential education), digital learning technologies (e.g., AI-driven assessment, virtual simulations), and entrepreneurial mentorship (e.g., guiding student-led ventures). To ensure successful implementation, universities should:

- i. Establish ongoing faculty development programs on emerging EE methodologies.
- ii. Provide training on digital platforms for delivering EE, including interactive simulations and AI-driven learning management systems.

- iii. Address logistical constraints, particularly in resource-constrained environments such as Uganda, by increasing faculty capacity and reducing student-to-lecturer ratios.

e) Leveraging Family and Community Networks in EE

This research identifies family and community as crucial, yet underutilised, influences on entrepreneurship education. Universities should formalise strategies for:

- i. Integrating students' pre-university entrepreneurial experiences into curricula.
- ii. Encouraging family engagement in EE initiatives (e.g., mentorship programs, family business case studies).
- iii. Establishing university-community partnerships to provide student-led business support services.

For example, universities could set up Entrepreneurship Clinics where students work with community entrepreneurs to solve real business challenges, providing consulting, financial planning, and marketing support.

f) Promoting Lifelong Learning and Continuous Professional Development (CPD) in EE

Given the dynamic nature of entrepreneurship and evolving industry needs, universities should institutionalise lifelong learning pathways that:

- i. Offer short courses, CPDs, and micro-credentials tailored to emerging entrepreneurship skills.
- ii. Provide access to continuous entrepreneurial learning through online platforms and industry workshops.
- iii. Collaborate with governments and industry to establish national lifelong learning frameworks for entrepreneurship education.

g) Conducting Longitudinal Studies on EE Ecosystems

A key limitation identified in this research is the lack of longitudinal data on how entrepreneurship ecosystems evolve. Universities should collaborate with industry and policymakers to conduct longitudinal research on the evolution of entrepreneurship

ecosystems and examine how policy changes, digital transformation, and pedagogical shifts impact EE outcomes. This would ensure the development of data-driven EE policy frameworks informed by real-time ecosystem trends.

Summary: A Transformational Approach to EE Implementation

For the Adaptive Framework for Entrepreneurship Pedagogy to be successfully implemented, HEIs must move beyond conventional EE models and embrace an ecosystem-driven, technology-integrated, and student-centred approach. This will require a fundamental rethinking of EE pedagogical methods. By adopting this transformative approach, HEIs will be positioned to equip students with adaptable, future-ready entrepreneurship skills, ensuring that graduates thrive in complex, rapidly evolving business environments.

7.5.2 INDUSTRY AND SUPPORT NETWORKS

The successful implementation of the Adaptive Framework for Entrepreneurship Pedagogy requires robust collaboration between educational institutions, industry partners, entrepreneurship support networks, entrepreneurship hubs, and donor agencies. These stakeholders play a crucial role in bridging the gap between academia and industry, ensuring that entrepreneurship education (EE) is aligned with real-world business challenges, innovation demands, and emerging economic trends. This section outlines strategic recommendations for industry partners, entrepreneurship support networks, business chambers, entrepreneurship hubs, and donor agencies, ensuring the Adaptive Framework is effectively embedded within the entrepreneurship ecosystem.

A. INDUSTRY PARTNERS: STRENGTHENING UNIVERSITY-INDUSTRY COLLABORATION

i. Embedding Industry-Led Challenges into EE Pedagogy

A significant barrier in traditional EE is the disconnect between academic learning and industry practice. To help alleviate this situation, industry partners should play an active role in bridging this gap by:

- Providing real-world business challenges for students to solve as part of coursework and EE programs.
- Collaborating with chambers of commerce and business associations to identify industry-specific challenges that students can work on.
- Organising student pitch sessions, where students present solutions to business leaders, receiving feedback, mentorship, and potential investment opportunities.

These initiatives mirror existing models such as Knowledge Transfer Partnerships (KTPs) in the UK, where universities deploy students to work on real-world problems under faculty supervision. Similar programs should be expanded and institutionalised, particularly in emerging economies where industry-academic collaboration remains underdeveloped.

ii. Establishing Structured Internship and Apprenticeship Programs

The Adaptive Framework emphasises practical, hands-on learning, which requires strong industry participation in structured internships and apprenticeships. To this end, industry partners should:

- Design structured, paid internships that expose students to entrepreneurial problem-solving in real business environments.
- Pair students with industry mentors, providing ongoing guidance, industry insights, and networking opportunities.
- Extend successful UK models (e.g., the BCU internship model) to developing economies, particularly for MUBS and other African HEIs, where industry-university integration remains fragmented.

iii. Industry Investment in EE Infrastructure and Resources

Findings from this research highlight a lack of resources and digital infrastructure in some educational institutions, particularly in developing economies. As part of their CSR, industry partners should:

- Donate essential entrepreneurship tools and software, enabling students to gain exposure to market-relevant technologies.

- Provide access to business facilities for prototyping, testing, and product development.
- Establish industry-sponsored seed funding programs to support student-led startups emerging from EE programs.

B. ENTREPRENEURSHIP SUPPORT NETWORKS: BRIDGING ACADEMIA AND BUSINESS ECOSYSTEMS

Entrepreneurship support networks – including business chambers, professional associations, and mentorship organisations – should act as intermediaries between universities and the business ecosystem by:

- i. Facilitating student-business mentorship programs, pairing students with successful entrepreneurs and business leaders.
- ii. Hosting industry networking events where students, lecturers, and entrepreneurs collaborate.
- iii. Advocating for policy reforms that encourage stronger university-industry engagement in EE.

Strategic Action: National and regional business chambers should establish Entrepreneurship Education Councils to facilitate ongoing dialogue and collaboration between HEIs and industry.

C. ENTREPRENEURSHIP HUBS AND INCUBATORS: ENHANCING STARTUP DEVELOPMENT

Entrepreneurship hubs, accelerators, and incubators play a crucial role in transforming entrepreneurship education into real-world business ventures. To ensure the Adaptive Framework is effectively implemented, these hubs should:

- i. Offer co-working spaces, mentorship, and startup acceleration programs specifically designed for university students.
- ii. Collaborate with universities to create campus-based startup incubators that provide students with funding, legal support, and business advisory services.

- iii. Facilitate joint entrepreneurship competitions, allowing students to pitch business ideas and access seed funding.

Strategic Action: Where resources permit, Universities should establish their own incubation hubs, or formally integrate entrepreneurship hubs into EE curricula, ensuring students have structured pathways into the startup ecosystem.

D. DONOR AGENCIES AND INTERNATIONAL DEVELOPMENT ORGANISATIONS

In many regions, governments alone cannot finance the full spectrum of entrepreneurship education reforms. Donor agencies and international organisations, such as the World Bank, UNDP, Mastercard Foundation, and regional development funds, should:

- i. Provide grants for universities to develop entrepreneurship curricula, incubators, and industry collaboration programs.
- ii. Fund national research initiatives to track the evolution of entrepreneurship ecosystems and EE effectiveness.
- iii. Support pilot programs for the Adaptive Framework, enabling universities to test and refine its implementation in different economic contexts.

Strategic Action: Donor agencies should establish National Entrepreneurship Education Development Funds, co-financing EE infrastructure, research, and digital transformation.

E. ESTABLISHING FORMAL COLLABORATION FRAMEWORKS BETWEEN ACADEMIA, INDUSTRY, AND SUPPORT NETWORKS

For these recommendations to be effectively implemented, academia, industry, and support organisations must move beyond informal partnerships and establish structured collaboration agreements. These should include:

- i. Memoranda of Understanding (MoUs) between universities and industry partners, outlining mutual commitments to EE development.
- ii. National-level Public-Private Partnerships (PPPs) that co-fund EE innovation hubs, accelerators, and digital transformation initiatives.

- iii. Cross-sector Knowledge Transfer Agreements, ensuring that universities and industry jointly develop and implement entrepreneurship programs.

Strategic Action: Governments should incentivise long-term industry-university partnerships by offering tax incentives for companies that actively invest in EE infrastructure and skills development.

SUMMARY: A MULTI-STAKEHOLDER APPROACH TO EE REFORM

The Adaptive Framework for Entrepreneurship Pedagogy provides a comprehensive model for rethinking entrepreneurship education. However, its success depends on structured collaboration between education institutions, government, and various stakeholders in the wider entrepreneurship ecosystem all of whom must take a more proactive role in skills development, curriculum design, and EE resource investment. Entrepreneurship support networks should act as bridges between academia and business ecosystems, ensuring EE is aligned with market needs. Only by leveraging these multi-stakeholder partnerships will universities successfully embed the Adaptive Framework and produce graduates who are entrepreneurial, practical, and adaptable in an ever-changing business environment.

7.6 PROPOSED IMPLEMENTATION STEPS FOR THE ADAPTIVE FRAMEWORK FOR ENTREPRENEURSHIP PEDAGOGY

The effective implementation of the Adaptive Framework for Entrepreneurship Pedagogy requires a structured and multi-stakeholder approach that ensures alignment between education institutions, industry, and the broader entrepreneurial ecosystem. This research proposes a strategic roadmap that prioritises stakeholder buy-in, resource investment, and scalable implementation across primary, secondary, and tertiary education levels to foster coherent and sustainable entrepreneurship skills development (see Appendix 9.3 detailed recommendations).

A. DEVELOPMENT OF A PRACTITIONERS' MANUAL FOR HIGHER EDUCATION INSTITUTIONS

A key short-to-medium-term step is the development of a comprehensive Practitioners' Manual for Higher Education Institutions (HEIs). This manual will serve as a practical, evidence-based resource to:

- i. Guide educators in implementing experiential learning strategies that move beyond traditional classroom instruction.
- ii. Integrate local entrepreneurial ecosystems into EE, ensuring students gain real-world exposure through hands-on projects, internships, and simulations.
- iii. Provide structured learning pathways, particularly in resource-constrained environments, enabling students to tailor their entrepreneurship education to personal and market-driven needs.

The manual should emphasise the two key entrepreneurship skills identified in this research – risk-taking and networking – by offering targeted exercises and simulations designed to enhance students' ability to navigate uncertainty and build strategic business relationships, and guidelines on leveraging digital platforms (ICT and social media) to support learning, networking, and venture creation.

To ensure customisation of EE pedagogy, the manual should include strategies for:

- Modular course structures, allowing students to select entrepreneurship-focused electives based on their interests and local economic demands.
- Adaptive learning techniques, including AI-driven personalisation and low-cost mobile learning solutions (Miles and Singal, 2010), making EE more accessible in low-resource settings such as Makerere University Business School (MUBS).
- Peer learning networks and community-based projects, ensuring students engage with practical, real-world entrepreneurship challenges.

This manual will serve as a scalable, adaptable resource, ensuring EE curricula remain relevant, inclusive, and responsive to local and global economic shifts.

B. MONITORING AND EVALUATION (M&E) FRAMEWORK

To ensure the effectiveness and long-term impact of the Adaptive Framework, a robust Monitoring and Evaluation (M&E) system must be integrated into its implementation. The Practitioners' Manual should define Key Performance Indicators (KPIs) to measure aspects such as:

- i. Student Entrepreneurial Outcomes: Number of startups launched, venture sustainability, participation in business competitions, and engagement in entrepreneurial internships.
- ii. Entrepreneurial Mindset Development: Behavioural indicators such as risk-taking, creativity, problem-solving, and resilience.
- iii. Lecturer Engagement with Experiential Learning: Frequency and depth of adoption of innovative EE teaching methodologies.
- iv. Industry Collaboration Metrics: Number and quality of business partnerships, internships, industry-led projects, and co-created curricula.

To ensure continuous refinement, HEIs should adopt a structured evaluation timeline:

- Annual Reviews: Modelled after the UK's National Student Survey (NSS), institutions could assess student and faculty feedback, tracking progress and challenges in EE implementation.

- Biannual Industry Assessments: Evaluating how well EE graduates meet industry needs, identifying gaps in skills development.
- Longitudinal Studies: HEIs should conduct multi-year tracking of graduates to assess the long-term impact of EE on career trajectories, business creation, and ecosystem contributions.

By integrating rigorous evaluation mechanisms, this framework will remain dynamic and adaptable, ensuring entrepreneurship education remains future-focused, practical, and ecosystem-aligned.

7.7 LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Research limitations are inherent constraints that may impact the scope, applicability, or validity of findings. Acknowledging these limitations enhances transparency and contextual understanding, ensuring that conclusions are interpreted with appropriate caution (Creswell and Creswell, 2017). While this study provides valuable insights into the nexus of entrepreneurship ecosystems, EE pedagogy, and entrepreneurship skills, this research, nonetheless, encountered the following limitations:

a) Institutional Scope and Pedagogical Discrepancies

A key limitation of this research is its focus on only two institutions – BCU in the UK and MUBS in Uganda. While these case studies offer valuable insights, they represent only a small segment of the broader higher education landscape in both countries. Given the diversity in institutional structures, entrepreneurship ecosystems, and student demographics, findings may not be fully generalisable to other universities (Davidsson, 2015). However, this study was designed to conduct an in-depth micro-level analysis rather than establish broadly generalisable conclusions. Nevertheless, future research should broaden the institutional scope, incorporating a wider range of universities across different educational contexts to capture variations in EE pedagogical models, institutional policies, and mini-ecosystem dynamics. Expanding the study to include additional institutions across the UK, Uganda, and other regions is likely to provide a more comprehensive understanding of EE practices and their adaptability across diverse academic environments.

Additionally, this study revealed notable misalignments between student and lecturer perspectives on EE methods, particularly regarding the classification of curricular, co-curricular, and extracurricular approaches. While this study did not focus on clarifying these ambiguities, future research should:

- i. Investigate faculty resistance to non-traditional EE pedagogies, assessing how institutional policies shape lecturer attitudes toward experiential learning.
- ii. Examine logistical constraints – including resource limitations, faculty workload, and administrative policies – that may hinder the implementation of student-centred, hands-on EE approaches.

- iii. Provide policy recommendations to bridge the gap between educator expectations and student learning preferences, ensuring more effective EE delivery.

b) Geographic and Cultural Context

The study was conducted in two countries with distinct economic, cultural, and policy environments.

- The UK operates within a structured regulatory framework for EE, whereas Uganda's system is more flexible but constrained by resource limitations.
- Cultural attitudes toward entrepreneurship vary – entrepreneurship is often seen as a career necessity in Uganda but as an alternative career path in the UK.

These differences mean that findings may not apply directly to other countries. To enhance the generalisability of findings, future research should extend beyond the current institutional sample by conducting comparative studies across multiple universities to assess variations in EE implementation. Additionally, research should expand beyond the UK and Uganda to explore entrepreneurship ecosystems, especially in the East African Community (EAC) due to limited publications on EE from the African continent. Such studies should also investigate how economic, cultural, and institutional factors shape EE models in different higher education systems. This would help contribute to a more global understanding of EE best practices, allowing for context-sensitive frameworks that can be adapted across diverse education systems.

c) Constraints on Customisation of Education

While this research highlights the importance of tailoring EE to individual student needs, it does not fully explore the practical constraints of implementing such customised educational models. These include institutional resource limitations (e.g., staff capacity, infrastructure, funding), logistical challenges (e.g., large class sizes, particularly in Uganda), and technological barriers, especially in low-resource settings. Further studies should assess the scalability and feasibility of personalised EE approaches, particularly in developing economies where infrastructure constraints may hinder adaptive learning models.

d) Methodological Constraints

i. Absence of Industry and Policy Stakeholder Perspectives

While this study primarily focused on students and educators, EE ecosystems involve multiple stakeholders, including industry leaders who recruit entrepreneurship graduates and invest in university-business collaborations, and government policymakers who design national EE strategies and funding mechanisms. Due to time and logistical constraints, the research did not include interviews with key industry stakeholders such as employers, policymakers and members of business support networks such as chambers of commerce and entrepreneurship hubs. These perspectives are likely to have enriched the overall understanding of the practical implications of EE and how well it aligns with wider ecosystem / industry needs and policy objectives. Additionally, such stakeholders are likely to have provided deeper insights and highlighted potential areas for collaboration between academia, government and industry.

While the research could have benefited from the perspectives of a wider stakeholder base, its thrust was focused on the stakeholders that are directly responsible to the delivery and receipt of EE, namely students and lecturers. Nonetheless, future research should explore perspectives of other ecosystem players on entrepreneurship skills. Such insights would ensure that EE policies remain responsive to real-world demands.

ii. Sample Size

The use of a mixed methods approach, while valuable for in-depth insights, was not without its challenges. For instance, this research acknowledges that the survey samples used were smaller than ideal. The small sample sizes used meant that the findings had reduced statistical power, limiting the ability to draw definitive conclusions. To mitigate against this, however, the survey results served only as a guide to the focus groups discussions and interviews, which offered rich and deeper insights into the three research domains.

Additionally, this study provides a snapshot of EE within current entrepreneurship ecosystems, but long-term effects remain underexplored. Future research should:

- Use longitudinal designs to track students before, during, and after EE programs to assess long-term entrepreneurial intentions, skills retention, and business success rates.
- Examine how evolving entrepreneurship ecosystems influence EE methodologies over time.
- Investigate the sustainability of EE programs – such as how curriculum changes impact entrepreneurship outcomes in the long run.

Longitudinal studies could offer deeper insights into EE's effectiveness, guiding evidence-based reforms in entrepreneurship curricula and policies.

iii. Impact of COVID-19 Pandemic

The research was conducted as universities were breaking off due to COVID-19 pandemic restrictions. Some focus groups were conducted on the actual day of the lockdown in the UK, which is likely to have affected participants' focus and responses. Additionally, the researcher took a two-year break during the pandemic for personal and career-related reasons, further impacting the study's continuity and context.

Additionally, the COVID-19 pandemic's disruption of traditional educational practices was real and may have altered the dynamics of entrepreneurship ecosystems and EE worldwide. Evidence suggests that lockdowns, social distancing measures, and the transition to remote learning disrupted traditional educational practices, affecting both the delivery and reception of EE (Chirikov et al., 2020), and by extension the generalisability of this research's findings as the data was collected just before lockdown. The rapid shift to online learning and changes in student engagement could have since impacted the effectiveness and perceptions of EE methods (Chirikov et al., 2020). For instance, face-to-face interactions, which are integral to experiential learning in EE, were limited during the lockdown, potentially impacting the effectiveness of certain pedagogical approaches post the pandemic, given that a whole cohort of students are only emerging from these lockdown practices and might struggle to adjust to some of the recommendations from this research as the data was collected just before lockdown.

iv. Potential Bias in Self-Reported Data

This research relied on self-reported data from students and lecturers. Due to some of the methodologies used, such as focus groups, respondents may have provided socially desirable responses or inaccurately recall their experiences, potentially biasing the results of the study (Babbie and Mouton, 2012; Bryman and Bell, 2015; Bosma et al., 2018). However, this research attempted to mitigate the impact of respondent biases through triangulation mainly by using multiple data sources which helped to cross-verify the self-reported information. Future research could strengthen reliability by incorporating observational studies – evaluating student engagement in real-time entrepreneurship activities.

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9. APPENDICES

9.1 REFLECTIONS

My journey into entrepreneurship, particularly within the realms of entrepreneurship education and ecosystem development, has been both a professional and deeply personal endeavour for me. My entry into this field began at Kingston University in 2014. After a lengthy period in the corporate sector, particularly in pensions administration in London, I decided to pivot towards academia, enrolling in a BSc in Business Management. This decision marked the beginning of a transformative journey that would redefine my career and academic pursuits. Becoming the President of the Entrepreneurship Society and establishing “Kingston Nest” – a student-run business incubator – provided a fertile ground for developing my passion for entrepreneurship, and entrepreneurship education. Through hands-on initiatives such as the “Bright Ideas Competition”, I gained a profound understanding of the role of experiential learning in fostering innovation and entrepreneurial spirit among students.

This period was formative, leading to the creation of NASE Africa, a social enterprise aimed at promoting entrepreneurship education in Uganda through a variety of initiatives including the Leap Conference and the Youth IDEAthons, which have, to date, facilitated over \$560,000 in grants to youth entrepreneurs. These experiences laid the foundation for my deeper involvement in Uganda’s entrepreneurship and innovation ecosystem, particularly through my engagements with universities such as MUBS and my role in Startup Uganda, where I have contributed to curriculum design and policy initiatives like the Startup Act for Uganda respectively.

Upon receiving a 50% Future Leader Scholarship to pursue an MBA at the University of Surrey, I found myself amidst a cohort of highly accomplished Chevening scholars – an experience that was both inspiring and challenging. The MBA programme’s emphasis on the digital business landscape further solidified my interest in understanding the digital dimensions of entrepreneurship. Following my MBA, I joined Anglia Ruskin University in Cambridge as a Partnerships and Enterprise Development Officer, where I worked on fostering relationships between the university and external stakeholders, including local

SMEs, research councils, and government agencies. A key achievement during this period was my involvement in establishing Reactor, the university's business incubator, which focused on supporting startups and SMEs in leveraging gaming and gamification technologies. These experiences prompted a critical inquiry into the factors that shape entrepreneurial behaviour and the role of universities in nurturing entrepreneurial talent. It was during a chance conversation at a dinner with East African PhD students at the University of Cambridge that I was motivated to explore these questions further at the doctoral level, ultimately leading me to Birmingham City University to pursue a PhD in Entrepreneurship.

Throughout my PhD journey, I encountered numerous challenges and opportunities that reshaped my understanding of entrepreneurship education and entrepreneurship ecosystems. The sheer volume of literature on what I initially assumed to be straightforward concepts – such as the definition of entrepreneurship – required delving into historical perspectives dating back to the 1700s. This process was intellectually demanding, necessitating a rigorous engagement with diverse academic discourses.

I was on course to finish the PhD in less than three years. However, the outbreak of the COVID-19 pandemic disrupted my research timeline, prompting a temporary hiatus to focus on family and deliver entrepreneurship-related projects in both the UK and Uganda. Unbeknownst to me at the time, this period of practical engagement reminded me, and provided invaluable insights into the real-world application of entrepreneurship skills and the dynamics of entrepreneurship ecosystems.

In the UK, I co-founded the African Business Chamber (AfBC) – an organisation that supports African-owned businesses and entrepreneurs in the UK. During the pandemic, AfBC played a crucial role in supporting African startups and SMEs, leveraging partnerships and funding from Innovate UK to deliver online sessions aimed at helping businesses adapt and thrive amidst the disruptions. This experience highlighted the importance of specific entrepreneurship skills such as opportunity recognition, creativity, innovation, risk-taking, decision-making, and digital proficiency. The pandemic also helped to highlight the critical role these skills play in navigating uncertainty and seizing new opportunities, particularly in a rapidly changing digital landscape.

Simultaneously, while in Uganda, I was involved in the Youth IDEathon project under the auspices of NASE Africa – a national initiative in partnership with UNDP Uganda. This project attracted over 4,800 new business ideas from youth, with over 100 participants receiving grants totalling over \$500,000. The initiative also brought to light the importance of a comprehensive set of entrepreneurship skills, including digital skills, creativity, opportunity recognition, decision-making, and reflective practice. Conducted during a stringent lockdown, the project emphasised the need for agility and robust digital capabilities not only among participants but also within the organising team.

The success of this initiative further illuminated the critical role of entrepreneurship ecosystems in fostering innovation and entrepreneurial activity. Having lived through the pandemic in both the UK and Uganda – albeit through different lockdown periods – my reflection on the two countries' responses to the COVID-19 pandemic revealed stark differences in the scope, scale, and effectiveness of their respective entrepreneurship ecosystems. Before I left the UK, I had witnessed the UK's response, which was characterised by extensive financial support, a robust digital infrastructure, regulatory flexibility, and targeted support for specific sectors. For instance, the Coronavirus Job Retention Scheme (CJRS) and the Self-Employment Income Support Scheme (SEISS) provided substantial financial relief to businesses and self-employed individuals (HM Treasury, 2020). Additionally, the UK leveraged its advanced digital infrastructure to facilitate remote work, e-commerce, and digital business models (Tech Nation, 2020). In contrast, Uganda's response was constrained by limited fiscal capacity, weaker digital infrastructure, and a narrower scope of support. The primary measures included tax deferrals, penalty waivers, and concessional loans through the Uganda Development Bank (UDB) targeting specific sectors such as agriculture, manufacturing (Uganda Development Bank, 2020). This disparity helped me to appreciate the critical role that well-developed entrepreneurship ecosystems play in enhancing entrepreneurial resilience and adaptability.

From a pedagogical perspective, this research contributes significantly to the discourse on entrepreneurship education by advocating for an enhanced pedagogical framework that incorporates risk-taking and networking as essential entrepreneurship skills. The pandemic experience highlighted that risk-taking is not merely an academic or abstract concept, but a critical competence that can determine business survival and success. Additionally, the role

of ICT entrepreneurship has since become increasingly evident, necessitating their inclusion as a core domain within the entrepreneurship ecosystem framework. Consequently, this research proposes an enhanced entrepreneurship education pedagogy and policies for universities that emphasise a multifaceted approach that better aligns entrepreneurship education with the needs of contemporary students and the dynamic nature of entrepreneurship ecosystems.

The findings of this study have profound implications for both developed and developing economies. In developed economies like the UK, the emphasis should be on leveraging advanced digital infrastructures and fostering regulatory flexibility to support innovation and entrepreneurial resilience. In contrast, for developing economies such as Uganda, there is a need for a more holistic approach that addresses the digital divide and fosters a supportive regulatory environment. One of the key contributions of this research is the identification of ICT as a fundamental domain of the entrepreneurship ecosystem, alongside the role of community, family, and social media in fostering entrepreneurship skills and education.

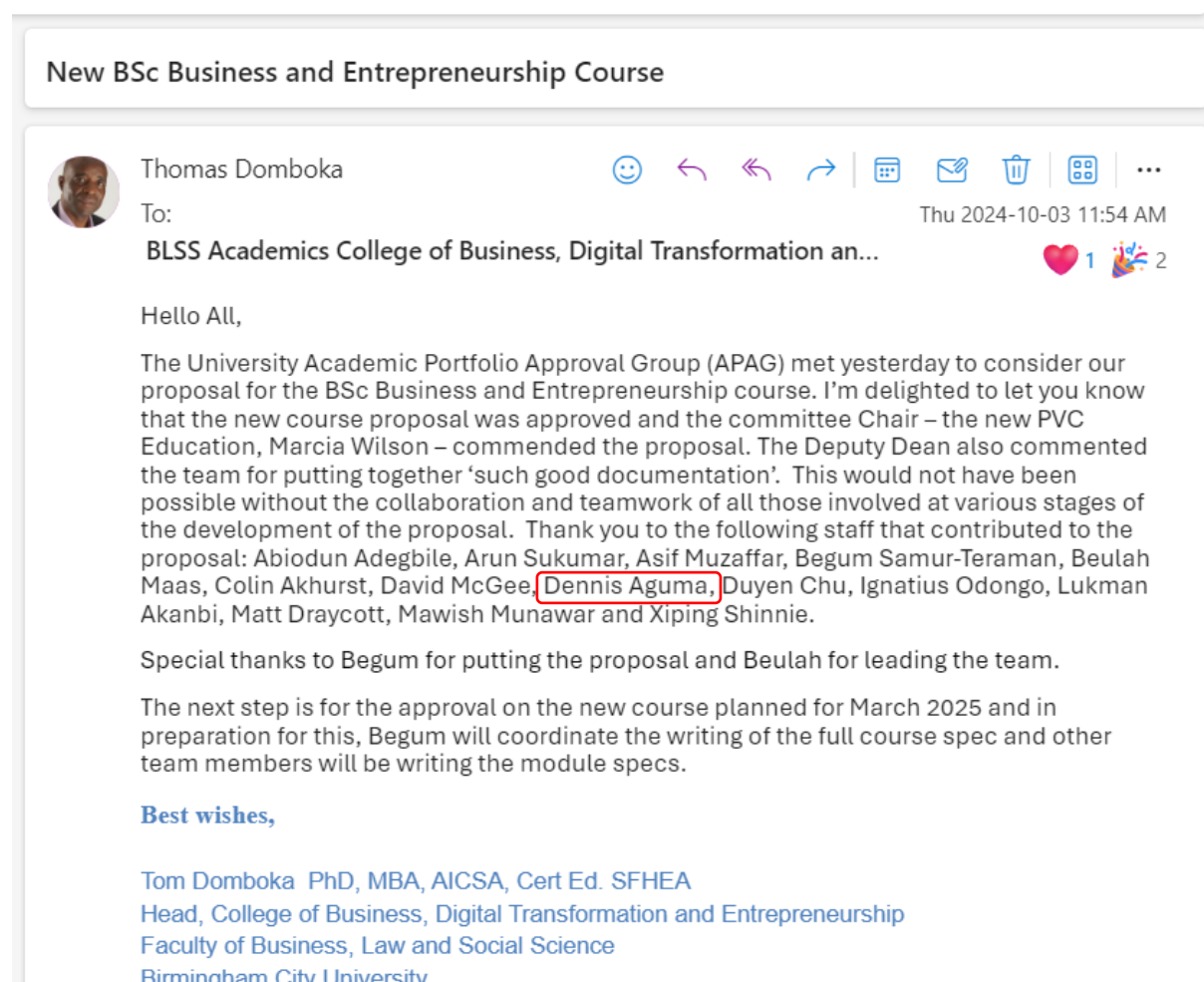
Reflecting on my teaching experiences in both Uganda and the UK, as well as my work with NGOs, startups, and SMEs, it is evident that entrepreneurship education and ecosystems are inextricably linked. For entrepreneurship education to be effective, it must be responsive to the ever-evolving nature of the global and local contexts in which students operate. However, universities, while critical, the research underscores the necessity for their entrepreneurship education to extend beyond university walls, recognising that many entrepreneurs, particularly in Sub-Saharan Africa, do not possess formal higher education qualifications. Therefore, a more holistic approach is required - one that begins at the primary education level, progresses through secondary education, and extends into the community, ensuring that entrepreneurship education is accessible to all – regardless of socio-economic status or educational attainment.

Such a holistic strategy will enable the cultivation of entrepreneurs who are not only capable of thriving within their local ecosystems, but also adaptable to the broader global environment.

9.2 DEMONSTRATION OF IMPACT

Over the years, some of my engagements with MUBS, notably the Annual Leap Conference, have, in a small way, contributed to the institution's adoption of an extracurricular entrepreneurship education approach. Implementation of aspects of the Adaptive Framework approach means that nearly all of MUBS entrepreneurship projects are now practical and hands-on.

Figure 54: Email from head of the Business Digital Transformation and Entrepreneurship at BCU confirming my involvement in the design of a new entrepreneurship course.



At BCU, insights from my findings have contributed to enhancing existing courses through the reapproval process and developing the college's new Entrepreneurship Course (Figure 54). I designed the Sales and Negotiation module and supported the development of two others – Ideation and The Entrepreneurial Challenge. Additionally, elements of the framework, such as collaborative industry projects and guest lectures, are already in place,

while others, like gamification, interdisciplinary collaboration, and customised learning paths, are currently being explored by the college. At the time of writing this PhD, The College of Business, Digital Transformation, and Entrepreneurship, along with the wider university, are eager to integrate STEAM House, the university's business incubator, to enhance course delivery and provide students with opportunities for practical, hands-on learning.

More recently, however, working under the guidance of Prof. Ernest Abaho and Abnest Consultancy, who were engaged by the Mastercard Foundation and the Private Sector Foundation of Uganda to design an entrepreneurship curriculum, some of my preliminary findings informed and complimented the curriculum design. This curriculum, implemented by Cyber School Technology Solutions, incorporates local entrepreneurship ecosystem factors. These considerations are reflected in the case studies, examples, and language used to break down key concepts, making them accessible to participants and students, especially those in Technical and Vocational Colleges who may not have attended university. The curriculum development process was collaborative and well-received by various stakeholders and agencies, including the National Curriculum Development Centre, Directorate of Industrial Training, National Council for Higher Education, and the Federation of Uganda Employers' Association (Figure 55).

Figure 55: The author, as part of the Abnest Consulting team, sharing insights on entrepreneurship education



Additionally, my research experiences have informed my deeper involvement in Uganda's entrepreneurship and innovation ecosystem, especially my role in Startup Uganda, where, through engagements, feedback, and support to the lead consultant, Prof. Ernest Abaho, I have contributed to policy initiatives such as the ongoing Startup Policy for Uganda.

9.3 PROPOSED FULL IMPLEMENTATION STEPS FOR THE ADAPTIVE FRAMEWORK FOR EE

The successful implementation of the Adaptive Framework For EE requires a strategic approach involving multiple stakeholders within the entrepreneurship education (EE) ecosystem. The steps outlined below detail the processes and roles necessary to ensure the Framework is effectively introduced, rolled out, resourced, and continuously developed.

A. Introducing the Framework to Stakeholders

The first step in implementing the Adaptive Framework For EE is to ensure that all relevant stakeholders are informed of the research findings and the proposed framework. This can be achieved through organising a dedicated stakeholder engagement conference to formally introduce the Adaptive Framework For EE to a broader audience. This event would serve as a platform for securing stakeholder buy-in, addressing any concerns, and refining the implementation plan. To be meaningful, the conference should involve key stakeholders from academia, industry, policy, and support networks and would serve as a platform to present the research findings and gather initial feedback about the Adaptive Framework For EE.

Additionally, the research findings should be published in reputable academic journals to establish the credibility of the Adaptive Framework For EE within the academic community. These papers would highlight the theoretical underpinnings and practical implications of the framework. The research should also be used to develop a concise policy brief that summarises the key findings and recommendations, and distribute it to policymakers, educational institutions, and industry leaders. Given that the research covers two countries, two briefs should be tailored for each country. The briefs should be emphasising the need for the Adaptive Framework For EE in enhancing entrepreneurship education, but aligning the policy brief the respective national and institutional educational goals.

B. Ensuring Stakeholder Buy-In

Given that BCU and MUBS are in the process of finalising a Memorandum of Understanding (MoU) to formalise their collaboration (Evidence??), these institutions can jointly champion the implementation of the Adaptive Framework For EE in their respective countries. The

MoU could serve as a foundation for a coordinated approach, leveraging the strengths and resources of both institutions.

To be effective in coordinating this, a select committee consisting of representatives from BCU, MUBS, industry partners, policymakers, and support networks could be established. This committee, coordinated by the researcher, would be responsible for reviewing the recommendations, developing an implementation strategy, and providing ongoing oversight. The committee should also include student representatives to ensure that the framework aligns with student needs and preferences.

C. Rolling Out the Implementation of the Framework

The Adaptive Framework For EE should be rolled out in phases to manage resources effectively and allow for iterative learning. The initial phase could involve pilot programs at BCU and MUBS, where the framework is tested with a select group of students and faculty. Based on the outcomes of the pilot phase, the framework can then be refined and expanded to other institutions, including integrating into the existing entrepreneurship education curriculum. This integration could involve embedding Sandpit activities within existing courses, creating new modules focused on experiential learning.

To ensure its success, HEI's should equip lecturers with the necessary skills and knowledge to implement the Adaptive Framework For EE effectively. This could involve the continuous delivery of professional development workshops, training on new pedagogical methods, and creating a support network for educators.

As the Adaptive Framework For EE proves successful, the researcher and the select committee should consider expanding it to other institutions, regions, or even internationally. This expansion could involve creating a network of institutions that adopt the Adaptive Framework For EE, sharing resources, and collaborating on joint initiatives.

D. Resourcing the Framework

As already highlighted in the research, the success of the Adaptive Framework For EE requires HEIs to identify and secure the necessary resources to support its implementation. This includes financial resources, educational materials, digital tools, and physical

infrastructure. Potential sources of funding include institutional budgets, government grants, private sector sponsorships, and philanthropic donations. HEIs should also leverage partnerships with industry to provide resources such as software, tools, equipment, and access to facilities. Industry partners can also contribute by offering mentorship, internships, and practical business challenges that form the core of the Sandpit activities.

E. Future Development and Continuous Improvement

Given the evolving nature of ecosystems, stakeholder should establish a robust system for monitoring and evaluating the implementation of the Adaptive Framework For EE. This should involve setting clear benchmarks for success, regular assessment of student outcomes, and feedback loops to inform ongoing improvements. Evaluation metrics could include student engagement, skill acquisition, startup creation, and industry collaboration.

There is also need to continuously benchmark the Adaptive Framework For EE against best practices in entrepreneurship education globally. This could involve participating in international conferences and collaborating with other institutions that have implemented similar frameworks.

9.4 PRE-STUDY: FULL FINDINGS

1. INTRODUCTION

This appendix presents the full findings from the pre-study surveys, which were conducted as an initial phase to inform the broader research design and approach. Unlike the pilot study, which focused on refining data collection instruments and methodologies, the pre-study served as an exploratory investigation to identify key themes and trends related to entrepreneurship skills, teaching methods, and the influence of entrepreneurship ecosystems on education and skill development.

The pre-study surveys were administered to both students and lecturers at Birmingham City University (BCU) in the UK and Makerere University Business School (MUBS) in Uganda. The surveys aimed to capture perceptions of entrepreneurial competencies, preferences for entrepreneurship education (EE) methods, and the role of local ecosystem factors in shaping both the delivery and outcomes of EE. By examining these dimensions, the pre-study provided a foundational understanding of the contextual variables influencing entrepreneurship education in both developed and developing country settings.

The quantitative data collected during this phase highlighted preliminary trends and correlations that informed the development of the subsequent research phases. These findings guided the refinement of the research objectives, the formulation of more targeted research questions, and the adaptation of data collection instruments for the main study.

The Appendix is organised into two main sections. The first section examines the data from students while the second presents findings from lecturers. For the former, it covers their entrepreneurial skills' self-assessment, highlighting perceived strengths and gaps in competencies. It also explores student preferences and perceptions regarding EE teaching methods and provides insights into the effectiveness of different pedagogical approaches. The second section captures the lecturers' perspectives on the same issues but delves further into the perceived impact of ecosystem factors – such as cultural influences, institutional support, and access to resources – on both entrepreneurship education practices and the development of entrepreneurial skills.

Methodological Approach for Survey Data

Online surveys were conducted to collect quantitative data from students and lecturers at BCU and MUBS. The surveys consisted of structured questionnaires that included closed-ended questions with predetermined response options (Appendix 9.13 and 9.14). The findings below are from a comparative survey analysis of students and lecturers at BCU and MUBS. Survey Data was analysed using a combination of descriptive and inferential statistics. Descriptive statistics were used to analyse the profiles of the participants such as age, gender, region, course and year of study. It was also used to capture frequency distribution of the responses in line with the variables under investigation. Inferential statistics were used to test the statistical significance of the relations between different variables.

2. STUDENT SURVEYS

2.1. OVERALL DATA SPREAD AND KEY DEMOGRAPHICS

Age Groups

The majority of participants (72.45%) were in the 18-21 age group. The second largest group was 22-25 years (23.98%). At BCU, most participants (74.80%) were also aged 18-21, followed by 21.26% aged 22-25. However, MUBS had a slightly higher proportion of participants (28.99%) in the 22-25 age group compared to BCU, though the majority (68.12%) were still aged 18-21 (See Table 68).

Table 68: Age Groups of student participants

| VARIABLE | OVERALL Numbers (%) | BCU Numbers (%) | MUBS Numbers (%) | PVALUE |
|--------------------|------------------------|--------------------|---------------------|--------|
| 18-21 years | 142 (72.45) | 95 (74.80) | 47 (68.12) | 0.2474 |
| 22-25 years | 47 (23.98) | 27 (21.26) | 20 (28.99) | |
| 26-29 years | 6 (3.06) | 5 (3.94) | 1 (1.45) | |
| 30 and above years | 1 (0.51) | 0 (0.00) | 1 (1.45) | |

Univariate and Multivariate Analysis: In the initial analysis, a p-value of 0.2474 suggested that age was unlikely to significantly influence the results of the study (See Table 68 above). However, when the 18-21 age group was compared with other age groups (22-25, 26-29 and 30+), the analysis showed that there was no significant statistical difference (Table 69). Therefore, age as a unit of analysis, was excluded.

Table 69: Univariate and Multivariate Analysis on Age Group of student Participants

| Variables | Univariate | | Multivariate | |
|--------------------------|-------------------|----------------|---------------------|----------------|
| Age group (years) | Beta (SE) | p-value | Beta (SE) | p-value |
| 22-25 vs. 18-21 | 2.5 (1.1) | 0.025 | 2.3 (1.1) | 0.035 |
| 26-29 vs. 18-21 | 5.5 (2.7) | 0.047 | 6.4 (2.7) | 0.018 |
| 30+ vs. 18-21 | 7.3 (6.6) | 0.27 | 4.2 (6.4) | 0.514 |

Gender

There were more male (55.10%) than female participants (43.88%). However, at BCU, the majority were male (62.99%), with females made up 37.01%. While a higher percentage of participants at MUBS were female (56.52%) compared to males (40.58%) (Table 70).

Gender distribution showed a significant statistical difference between the two universities ($p = 0.0030$), with BCU having had more male participants, while MUBS had more female participants (See Table 70). However, a chi-square test revealed no statistically significant difference in gender distribution between female and male students at MUBS ($\chi^2 = 0.5487$, $p = 0.5487$), and BCU suggesting that gender is unlikely to have significantly influenced the results of the research. Additionally, no significant association was found between age groups and gender ($\chi^2 = 0.5487$, $p = 0.5487$).

Table 70: Gender spread for student participants

| VARIABLE | OVERALL Numbers (%) | BCU Numbers (%) | MUBS Numbers (%) | PVALUE |
|-------------------|----------------------------|------------------------|-------------------------|---------------|
| Female | 86 (43.88) | 47 (37.01) | 39 (56.52) | 0.0030 |
| Male | 108 (55.10) | 80 (62.99) | 28 (40.58) | |
| Prefer not to say | 2 (1.02) | 0 (0.00) | 1 (2.90) | |

Ethnicity

Across the two institutions, Black participants made up the largest ethnic group (47.45%), followed by Asian (31.12%), White (19.90%), and Mixed (1.53%). At BCU, however, the participants were predominantly Asian (48.03%) and White (30.71%), with Black participants accounting for just 18.90%. This was in sharp contrast to MUBS, where all participants were exclusively Black (100%). Consequently, ethnic composition differed significantly ($p < 0.0001$) between the two institutions where BCU had a more diverse ethnic mix, compared to MUBS whose participants were entirely Black (Table 71).

Table 71: The ethnicity between the two universities (BCU and MUBS)

| VARIABLE | OVERALL Numbers (%) | BCU Numbers (%) | MUBS Numbers (%) | PVALUE |
|----------|------------------------|--------------------|---------------------|--------|
| Asian | 61 (31.12) | 61 (48.03) | 0 (0.00) | <.0001 |
| Black | 93 (47.45) | 24 (18.90) | 69 (100.0) | |
| Mixed | 3 (1.53) | 3 (2.36) | 0 (0.00) | |
| White | 39 (19.90) | 39 (30.71) | 0 (0.00) | |

Year of Study

Most participants at both institutions were in their 1st year (63.27%). At BCU, 66.93% were 1st year students while MUBS had slightly fewer 1st year participant students (56.52%). There was no significant statistical difference in the year of study between the two universities ($p = 0.1489$) (see Table 72).

Table 72: Year of study between the two universities (BCU and MUBS)

| VARIABLE | OVERALL Numbers (%) | BCU Numbers (%) | MUBS Numbers (%) | PVALUE |
|----------|------------------------|--------------------|---------------------|--------|
| 1st Year | 124 (63.27) | 85 (66.93) | 39 (56.52) | 0.1489 |
| 3rd Year | 72 (36.73) | 42 (33.07) | 30 (43.48) | |

Mode of Study (Part-time vs. Full-time)

The majority of the participants from both institutions were full-time students (73.98%). A key difference between the two institutions was that all participants at BCU were full-time (100%), while a notable portion of MUBS participants (73.91%) were part-time students. ++This variation represents a significant statistical difference in the mode of study between the two institutions ($p < 0.0001$) (Table 73).

Table 73: The mode of study at both BCU and MUBS

| VARIABLE | OVERALL Numbers (%) | BCU Numbers (%) | MUBS Numbers (%) | PVALUE |
|-----------|------------------------|--------------------|---------------------|--------|
| Fulltime | 145 (73.98) | 127 (100.0) | 18 (26.09) | <.0001 |
| Part time | 51 (26.02) | 0 (0.00) | 51 (73.91) | |

Course Studied

The most common course attended by the participants at both institutions was Business (74.49%). At BCU, the percentage of participants studying Business was 97.64% compared to MUBS which was 31.88%. However, majority of students at MUBS were studying

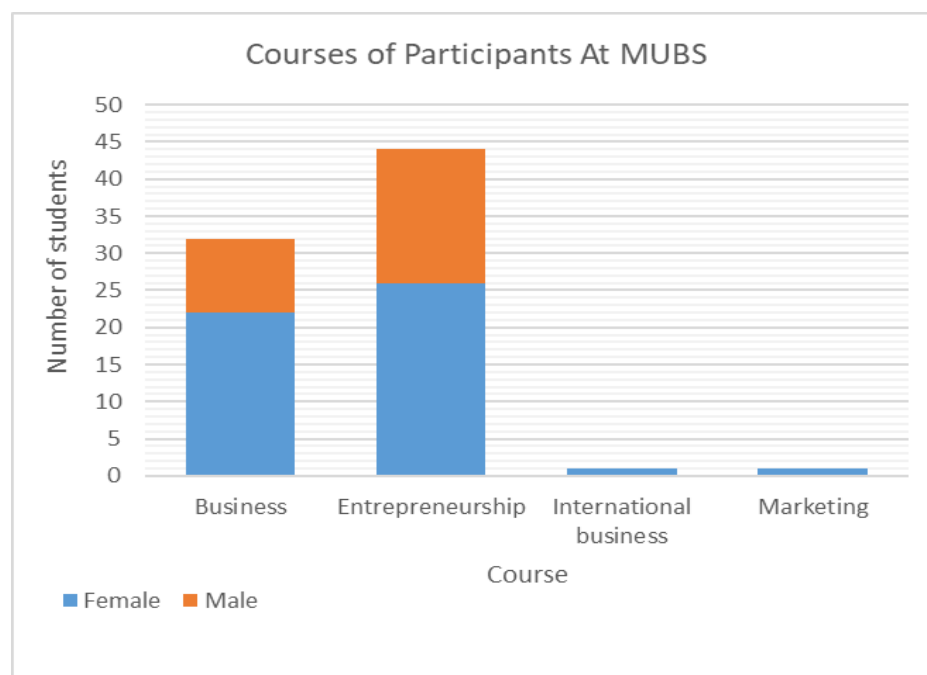
Entrepreneurship (65.22%). BCU did not have an Entrepreneurship Course at the time of data collection and analysis. Consequently, the course distribution was statistically significant ($p < 0.0001$, Table 74).

Table 74: Courses studied at the universities

| VARIABLE | OVERALL Numbers (%) | BCU Numbers (%) | MUBS Numbers (%) | PVALUE |
|------------------------|------------------------|--------------------|---------------------|--------|
| Business | 146 (74.49) | 124 (97.64) | 22 (31.88) | <.0001 |
| Entrepreneurship | 47 (23.98) | 2 (1.57) | 45 (65.22) | |
| International business | 1 (0.51) | 0 (0.00) | 1 (1.45) | |
| Marketing | 1 (0.51) | 0 (0.00) | 1 (1.45) | |
| Other | 1 (0.51) | 1 (0.79) | 0 (0.00) | |

However, the gender distribution of courses taken shows more females than males at both institutions (Figure 56).

Figure 56: Courses of Participants At MUBS.



Region where students came from

This variable carries more significance in Uganda than the UK because of the regional demarcation of the country, which tends to have tribal and cultural connotations. Because the UK does not follow similar geographical demarcations, the data from BCU has been omitted from this analysis (see Table 75).

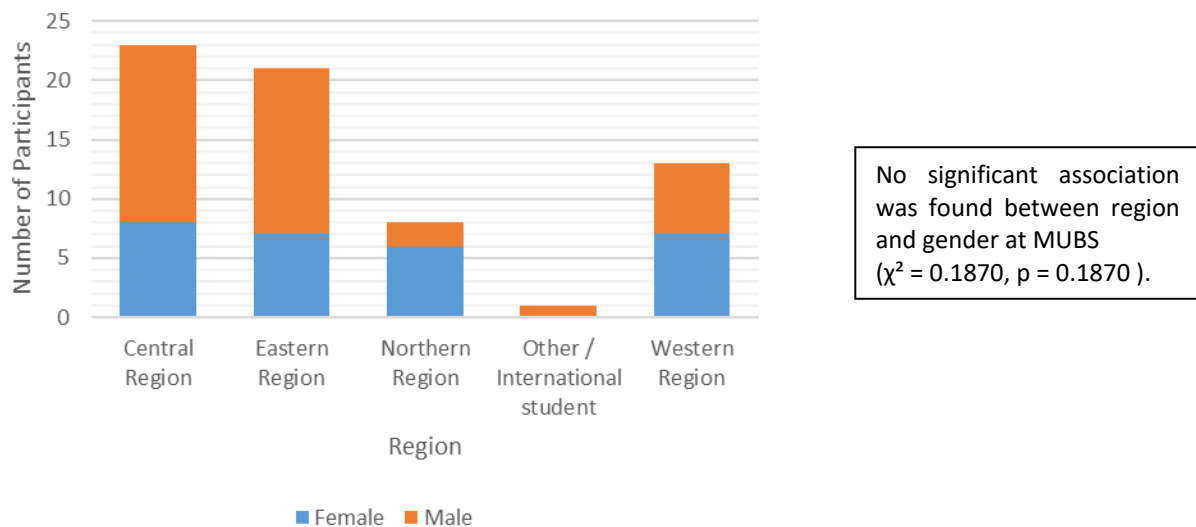
Table 75: Where Student participants At MUBS The Universities Came From.

| VARIABLE | MUBS Numbers (%) | Most respondents at MUBS were predominantly from the Central (35.29%) and Eastern (30.88%) Regions. The Western Regions and Northern regions of Uganda also contributed to the sample, albeit with fewer respondents of 20.59% and 11.76% respectively. |
|-------------------------------|------------------|---|
| Central Region | 24 (35.29) | |
| Eastern Region | 21 (30.88) | |
| Northern Region | 8 (11.76) | |
| Other / International student | 1 (1.47) | |
| Southern | 0 (0.00) | |
| Western Region | 14 (20.59) | |

Notes Regarding Table 75 Above.

- Southerners are also regarded as coming from the west (Westerners) in the context of Uganda. This explains why there were no southerners in the Ugandan dataset.
- In central and Eastern regions, there were more males than females, while in Northern and Western., there were more females (See Figure 57).

Figure 57: Regional Distribution of MUBS' Participants



Regression: Model Fit Diagnostics

Respondents' data was tested for evidence of multicollinearity. The results are shown in Table 76 below.

Table 76: Model Fit Diagnostics

| | |
|---|--|
| VIF ~ 1.01 and 1.06 Tolerance ranges between 0.94-0.98 | The variance inflation factor (VIF) values ranged between 1.01 and 1.06, indicating no multicollinearity issues. Tolerance values ranged between 0.94 and 0.98, further confirming the absence of multicollinearity. |
|---|--|

2.2. STUDENTS' POSSESSION OF ENTREPRENEURSHIP SKILLS

One of this research's objectives was to establish the extent to which the students at the participating universities were perceived to be entrepreneurial. The primary focus of this analysis was to evaluate students' self-assessment of their entrepreneurship skills across seven key areas;

1. Creativity and Innovation and Innovation
2. Opportunity Recognition, creation, and evaluation
3. Decision making supported by critical analysis, synthesis, and judgement.
4. Implementation of ideas through leadership and management
5. Action and Reflection
6. Communication and strategy skills
7. Digital and Data Skills

The students were asked to rate themselves on a scale of 1 to 7, on the extent to which they thought they possessed the above skills, with 1 being the lowest rating while 7 being the highest. The data was then analysed using SAS to determine the overall perception of students' possession of entrepreneurship skills and any significant differences in skill levels between students at the two institutions. Below are the overall findings.

a) Creativity and Innovation and Innovation

Most of students from both institutions (85%) rated themselves from 4 to 7, representing a strong belief that they possessed Creativity and Innovation and innovation skills (

Table 77).

The highest rating for both institutions was 5, representing 26.77% for BCU, and 26.09% for MUBS. No students from MUBS ranked themselves between 1 and 2, while 5.61% of students from BCU ranked themselves within this range. While this might suggest a higher level of confidence among students at MUBS than at BCU on possession of Creativity and

Innovation and Innovation skills, there was no significant statistical difference to prove that this difference exists (p-value = 0.4451).

Table 77: Creativity and Innovation and Innovation Skills

| VARIABLE: Rating | OVERALL No (%) | BCU No (%) | MUBS No (%) | PVALUE |
|-------------------------|---------------------------|-----------------------|------------------------|---------------|
| 1 | 3 (1.53) | 3 (2.36) | 0 (0.00) | 0.4451 |
| 2 | 4 (2.04) | 4 (3.15) | 0 (0.00) | |
| 3 | 19 (9.69) | 11 (8.66) | 8 (11.59) | |
| 4 | 46 (23.47) | 32 (25.20) | 14 (20.29) | |
| 5 | 52 (26.53) | 34 (26.77) | 18 (26.09) | |
| 6 | 45 (22.96) | 28 (22.05) | 17 (24.64) | |
| 7 | 27 (13.78) | 15 (11.81) | 12 (17.39) | |

b) Opportunity Recognition, Creation, and Evaluation

The distribution of responses was similar between the two institutions as both groups predominantly rated themselves between 4 and 6 indicating confidence in their ability to recognise and evaluate opportunities. A p-value of 0.2047 indicates that there is no notable statistical significance in this skill area between BCU and MUBS' students (Table 78).

Table 78: Opportunity Recognition, Creation, and Evaluation

| VARIABLE: Rating | OVERALL No (%) | BCU No (%) | MUBS No (%) | PVALUE |
|-------------------------|---------------------------|-----------------------|------------------------|---------------|
| 1 | 3 (1.53) | 1 (0.79) | 2 (2.90) | 0.2047 |
| 2 | 1 (0.51) | 1 (0.79) | 0 (0.00) | |
| 3 | 21 (10.71) | 14 (11.02) | 7 (10.14) | |
| 4 | 49 (25.00) | 39 (30.71) | 10 (14.49) | |
| 5 | 58 (29.59) | 35 (27.56) | 23 (33.33) | |
| 6 | 34 (17.35) | 20 (15.75) | 14 (20.29) | |
| 7 | 30 (15.31) | 17 (13.39) | 13 (18.84) | |

c) Decision Making Supported by Critical Analysis, Synthesis, and Judgment

The majority of MUBS students rated themselves between 5 and 7 compared to BCU students whose rating fell between 4 and 5, meaning that MUBS students generally perceive

themselves as having better decision-making skills, compared to their BCU counterparts. This is proved by a statistically significant value of 0.0132 (Table 79).

Table 79: Decision Making supported by critical analysis, synthesis, and judgement.

| VARIABLE: Rating | OVERALL No (%) | BCU No (%) | MUBS No (%) | PVALUE |
|-------------------------|---------------------------|-----------------------|------------------------|---------------|
| 1 | 1 (0.51) | 1 (0.79) | 0 (0.00) | 0.0132 |
| 2 | 2 (1.02) | 0 (0.00) | 2 (2.90) | |
| 3 | 12 (6.12) | 9 (7.09) | 3 (4.35) | |
| 4 | 38 (19.39) | 33 (25.98) | 5 (7.25) | |
| 5 | 56 (28.57) | 33 (25.98) | 23 (33.33) | |
| 6 | 48 (24.49) | 26 (20.47) | 22 (31.88) | |
| 7 | 39 (19.90) | 25 (19.69) | 14 (20.29) | |

d) Implementation of Ideas Through Leadership and Management

Students from both institutions mostly rated themselves between 4 and 6 (Table 80). This suggest that both groups of students believe they have strong leadership and management skills for implementing ideas. However, MUBS students had slightly higher ratings in the upper range (6 and 7) than BCU students. Notwithstanding this slight edge, the p-value of 0.5117 indicates that the statistical difference between the institutions was not significant.

Table 80: Implementation of ideas through Leadership and Management.

| VARIABLE: Rating | OVERALL No (%) | BCU No (%) | MUBS No (%) | p-VALUE |
|-----------------------------|---------------------------|-----------------------|------------------------|----------------|
| 1 | 2 (1.02) | 1 (0.79) | 1 (1.45) | 0.5117 |
| 2 | 6 (3.06) | 2 (1.57) | 4 (5.80) | |
| 3 | 18 (9.18) | 14 (11.02) | 4 (5.80) | |
| 4 | 37 (18.88) | 26 (20.47) | 11 (15.94) | |
| 5 | 58 (29.59) | 38 (29.92) | 20 (28.99) | |
| 6 | 44 (22.45) | 26 (20.47) | 18 (26.09) | |
| 7 | 31 (15.82) | 20 (15.75) | 11 (15.94) | |

e) Action and Reflection

While both groups primarily rated themselves between 4 and 6, there was a slight tendency for MUBS students to rate themselves at the upper end (between 5 and 7) (Table 81). While this might indicate a stronger emphasis on reflective practices at MUBS, the p-value of 0.4917 indicates that this difference had no statistical significance.

Table 81: Action and Reflection

| VARIABLE: Rating | OVERALL No (%) | BCU No (%) | MUBS No (%) | p-VALUE |
|-------------------------|---------------------------|-----------------------|------------------------|----------------|
| 2 | 3 (1.53) | 2 (1.57) | 1 (1.45) | 0.4917 |
| 3 | 18 (9.18) | 12 (9.45) | 6 (8.70) | |
| 4 | 40 (20.41) | 31 (24.41) | 9 (13.04) | |
| 5 | 55 (28.06) | 35 (27.56) | 20 (28.99) | |
| 6 | 46 (23.47) | 26 (20.47) | 20 (28.99) | |
| 7 | 34 (17.35) | 21 (16.54) | 13 (18.84) | |

f) Communication and Strategy Skills

MUBS students rated themselves significantly higher at the upper end of the scale (ratings 5 and 7), while most BCU students rated themselves between 4 and 6. This difference is reflected in the statistically significant p-value of 0.0074 (Table 82).

Table 82: Communication and Strategy Skills between BCU and MUBS

| VARIABLE: Rating | OVERALL No (%) | BCU No (%) | MUBS No (%) | p-VALUE |
|-------------------------|---------------------------|-----------------------|------------------------|----------------|
| 2 | 4 (2.04) | 1 (0.79) | 3 (4.35) | 0.0074 |
| 3 | 13 (6.63) | 12 (9.45) | 1 (1.45) | |
| 4 | 33 (16.84) | 27 (21.26) | 6 (8.70) | |
| 5 | 52 (26.53) | 34 (26.77) | 18 (26.09) | |
| 6 | 48 (24.49) | 30 (23.62) | 18 (26.09) | |
| 7 | 46 (23.47) | 23 (18.11) | 23 (33.33) | |

g) Digital and Data Skills

MUBS students believe they possess stronger digital and data skills as they rated themselves higher at the upper extremes (6 and 7) compared to BCU students who had higher frequencies in the mid-range ratings (3 and 4). The p-value of 0.0402 indicates a statistically significant difference between the two institutions (Table 83).

Table 83: Digital and Data Skills

| VARIABLE: Rating | OVERALL No (%) | BCU No (%) | MUBS No (%) | p-VALUE |
|------------------|-------------------|---------------|----------------|---------|
| 1 | 7 (3.57) | 6 (4.72) | 1 (1.45) | 0.0402 |
| 2 | 9 (4.59) | 5 (3.94) | 4 (5.80) | |
| 3 | 22 (11.22) | 16 (12.60) | 6 (8.70) | |
| 4 | 38 (19.39) | 31 (24.41) | 7 (10.14) | |
| 5 | 51 (26.02) | 34 (26.77) | 17 (24.64) | |
| 6 | 38 (19.39) | 20 (15.75) | 18 (26.09) | |
| 7 | 31 (15.82) | 15 (11.81) | 16 (23.19) | |

2.3. KEY OBSERVATIONS ON POSSESSION OF ENTREPRENEURSHIP SKILLS BY STUDENTS

a) Commonality of Entrepreneurship Skills

The overall consistency in the distribution of ratings suggests a broad consensus on the scope of entrepreneurship skills among both BCU and MUBS students. This confirms the commonality of these skills between the two institutions which could imply similarity in teaching approaches between the two institutions.

b) MUBS Vs BCU: Overall Entrepreneurship Skills

Note: There was a tendency for MUBS students to rate themselves relatively higher than their BCU counterparts across all the skill areas, particularly in decision-making, communication skills, and digital and data skills (Table 78, Table 79, Table 80, Table 81, Table 82 and Table 83 above). From a statistical perspective, the p-values of 0.0176 and 0.0055 (Table 84) for the mean and median respectively indicate significant statistical differences in possession of entrepreneurship skills between BCU and MUBS students.

Table 84: Mean and Median

| VARIABLE | OVERALL | BCU | MUBS | p-VALUE |
|--------------|-------------------|-------------------|-------------------|---------|
| Mean (SD) | n=196; 35.5 (6.7) | n=127; 34.7 (6.5) | n= 69; 37.0 (6.7) | 0.0176 |
| Median (IQR) | 35.0 (31-40) | 34.0 (31-38) | 38.0 (33-42) | 0.0055 |

c) Students' Ratings of their entrepreneurship skills based on Gender

Overall, males at BCU and MUBS tended to rate themselves slightly higher than females. However, the data shows (Table 85) that there is no statistical significance in the possession of entrepreneurship skills based on gender at BCU. The exception was a slightly significant rating in Digital and Data skills (p-value of 0.0641) reflecting somewhat higher ratings by

males over females. Similarly, the data shows that there was no statistical significance in the possession of entrepreneurship skills based on gender at MUBS (Table 85).

Table 85: Possession of entrepreneurship skills based on gender at BCU.

| Variable | Overall | Female | Male | p-value |
|---------------------------|------------|------------|------------|---------|
| Creativity and Innovation | | | | 0.3217 |
| 1 | 3 (2.36) | 2 (4.26) | 1 (1.25) | |
| 2 | 4 (3.15) | 0 (0.00) | 4 (5.00) | |
| 3 | 11 (8.66) | 4 (8.51) | 7 (8.75) | |
| 4 | 32 (25.20) | 14 (29.79) | 18 (22.50) | |
| 5 | 34 (26.77) | 15 (31.91) | 19 (23.75) | |
| 6 | 28 (22.05) | 9 (19.15) | 19 (23.75) | |
| 7 | 15 (11.81) | 3 (6.38) | 12 (15.00) | |
| Opportunity Recognition | | | | 0.5710 |
| 1 | 1 (0.79) | 1 (2.13) | 0 (0.00) | |
| 2 | 1 (0.79) | 1 (2.13) | 0 (0.00) | |
| 3 | 14 (11.02) | 6 (12.77) | 8 (10.00) | |
| 4 | 39 (30.71) | 16 (34.04) | 23 (28.75) | |
| 5 | 35 (27.56) | 11 (23.40) | 24 (30.00) | |
| 6 | 20 (15.75) | 6 (12.77) | 14 (17.50) | |
| 7 | 17 (13.39) | 6 (12.77) | 11 (13.75) | |
| Decision Making | | | | 0.4458 |
| 1 | 1 (0.79) | 1 (2.13) | 0 (0.00) | |
| 3 | 9 (7.09) | 3 (6.38) | 6 (7.50) | |
| 4 | 33 (25.98) | 14 (29.79) | 19 (23.75) | |
| 5 | 33 (25.98) | 14 (29.79) | 19 (23.75) | |
| 6 | 26 (20.47) | 6 (12.77) | 20 (25.00) | |
| 7 | 25 (19.69) | 9 (19.15) | 16 (20.00) | |
| Implementation | | | | 0.5281 |
| 1 | 1 (0.79) | 0 (0.00) | 1 (1.25) | |
| 2 | 2 (1.57) | 0 (0.00) | 2 (2.50) | |
| 3 | 14 (11.02) | 8 (17.02) | 6 (7.50) | |
| 4 | 26 (20.47) | 11 (23.40) | 15 (18.75) | |
| 5 | 38 (29.92) | 13 (27.66) | 25 (31.25) | |
| 6 | 26 (20.47) | 9 (19.15) | 17 (21.25) | |
| 7 | 20 (15.75) | 6 (12.77) | 14 (17.50) | |
| Action & Reflection | | | | 0.4952 |
| 2 | 2 (1.57) | 0 (0.00) | 2 (2.50) | |
| 3 | 12 (9.45) | 7 (14.89) | 5 (6.25) | |
| 4 | 31 (24.41) | 11 (23.40) | 20 (25.00) | |

| | | | | |
|----------------|------------|------------|------------|--------|
| 5 | 35 (27.56) | 14 (29.79) | 21 (26.25) | |
| 6 | 26 (20.47) | 9 (19.15) | 17 (21.25) | |
| 7 | 21 (16.54) | 6 (12.77) | 15 (18.75) | |
| | | | | |
| Communication | | | | 0.5880 |
| 2 | 1 (0.79) | 0 (0.00) | 1 (1.25) | |
| 3 | 12 (9.45) | 4 (8.51) | 8 (10.00) | |
| 4 | 27 (21.26) | 7 (14.89) | 20 (25.00) | |
| 5 | 34 (26.77) | 12 (25.53) | 22 (27.50) | |
| 6 | 30 (23.62) | 14 (29.79) | 16 (20.00) | |
| 7 | 23 (18.11) | 10 (21.28) | 13 (16.25) | |
| | | | | |
| Digital & Data | | | | 0.0641 |
| 1 | 6 (4.72) | 4 (8.51) | 2 (2.50) | |
| 2 | 5 (3.94) | 3 (6.38) | 2 (2.50) | |
| 3 | 16 (12.60) | 8 (17.02) | 8 (10.00) | |
| 4 | 31 (24.41) | 12 (25.53) | 19 (23.75) | |
| 5 | 34 (26.77) | 10 (21.28) | 24 (30.00) | |
| 6 | 20 (15.75) | 9 (19.15) | 11 (13.75) | |
| 7 | 15 (11.81) | 1 (2.13) | 14 (17.50) | |

Table 86: Possession of entrepreneurship skills based on gender at MUBS

| variable | Overall | Female | Male | p-value |
|---------------------------|------------|------------|------------|---------|
| | | | | |
| Creativity and Innovation | | | | 0.5040 |
| 3 | 7 (10.45) | 6 (15.38) | 1 (3.57) | |
| 4 | 14 (20.90) | 9 (23.08) | 5 (17.86) | |
| 5 | 18 (26.87) | 9 (23.08) | 9 (32.14) | |
| 6 | 16 (23.88) | 8 (20.51) | 8 (28.57) | |
| 7 | 12 (17.91) | 7 (17.95) | 5 (17.86) | |
| | | | | |
| Opportunity Recognition | | | | 0.3792 |
| 1 | 2 (2.99) | 1 (2.56) | 1 (3.57) | |
| 3 | 6 (8.96) | 5 (12.82) | 1 (3.57) | |
| 4 | 10 (14.93) | 7 (17.95) | 3 (10.71) | |
| 5 | 23 (34.33) | 14 (35.90) | 9 (32.14) | |
| 6 | 14 (20.90) | 8 (20.51) | 6 (21.43) | |
| 7 | 12 (17.91) | 4 (10.26) | 8 (28.57) | |
| | | | | |
| Decision Making | | | | 0.6719 |
| 2 | 2 (2.99) | 1 (2.56) | 1 (3.57) | |
| 3 | 3 (4.48) | 1 (2.56) | 2 (7.14) | |
| 4 | 4 (5.97) | 3 (7.69) | 1 (3.57) | |
| 5 | 23 (34.33) | 16 (41.03) | 7 (25.00) | |
| 6 | 21 (31.34) | 11 (28.21) | 10 (35.71) | |
| 7 | 14 (20.90) | 7 (17.95) | 7 (25.00) | |

| | | | | |
|---------------------|------------|------------|------------|--------|
| | | | | |
| Implementation | | | | 0.1183 |
| 1 | 0 (0.00) | 0 (0.00) | 0 (0.00) | |
| 2 | 3 (4.48) | 3 (7.69) | 0 (0.00) | |
| 3 | 4 (5.97) | 3 (7.69) | 1 (3.57) | |
| 4 | 11 (16.42) | 8 (20.51) | 3 (10.71) | |
| 5 | 20 (29.85) | 13 (33.33) | 7 (25.00) | |
| 6 | 18 (26.87) | 9 (23.08) | 9 (32.14) | |
| 7 | 11 (16.42) | 3 (7.69) | 8 (28.57) | |
| Action & Reflection | | | | 0.5189 |
| 2 | 1 (1.49) | 1 (2.56) | 0 (0.00) | |
| 3 | 5 (7.46) | 4 (10.26) | 1 (3.57) | |
| 4 | 9 (13.43) | 7 (17.95) | 2 (7.14) | |
| 5 | 19 (28.36) | 10 (25.64) | 9 (32.14) | |
| 6 | 20 (29.85) | 11 (28.21) | 9 (32.14) | |
| 7 | 13 (19.40) | 6 (15.38) | 7 (25.00) | |
| Communication | | | | 0.4893 |
| 2 | 2 (2.99) | 2 (5.13) | 0 (0.00) | |
| 3 | 1 (1.49) | 1 (2.56) | 0 (0.00) | |
| 4 | 6 (8.96) | 2 (5.13) | 4 (14.29) | |
| 5 | 18 (26.87) | 12 (30.77) | 6 (21.43) | |
| 6 | 17 (25.37) | 9 (23.08) | 8 (28.57) | |
| 7 | 23 (34.33) | 13 (33.33) | 10 (35.71) | |
| Digital & Data | | | | 0.3660 |
| 1 | 1 (1.49) | 1 (2.56) | 0 (0.00) | |
| 2 | 4 (5.97) | 3 (7.69) | 1 (3.57) | |
| 3 | 5 (7.46) | 1 (2.56) | 4 (14.29) | |
| 4 | 7 (10.45) | 4 (10.26) | 3 (10.71) | |
| 5 | 16 (23.88) | 12 (30.77) | 4 (14.29) | |
| 6 | 18 (26.87) | 10 (25.64) | 8 (28.57) | |
| 7 | 16 (23.88) | 8 (20.51) | 8 (28.57) | |

Table 87: Summary of BCU and MUBS' Students ratings of their entrepreneurship skills, based on gender

| Entrepreneurship Skill | p-values | |
|---------------------------|----------|--------|
| | BCU | MUBS |
| Creativity and Innovation | 0.3217 | 0.5040 |
| Opportunity Recognition | 0.5710 | 0.3792 |
| Decision Making | 0.4458 | 0.6719 |
| Implementation | 0.5281 | 0.1183 |
| Action & Reflection | 0.4952 | 0.5189 |
| Communication | 0.5880 | 0.4893 |
| Digital & Data | 0.0641 | 0.3660 |

Detailed observations for students' possession of each of the entrepreneurship skills - based on gender.

i. Creativity and Innovation

| BCU | MUBS |
|---|---|
| <ul style="list-style-type: none"> Overall: <ul style="list-style-type: none"> Higher scores were generally more frequent. Females and males both rated highly in the 4 to 7 range. Gender Differences: <ul style="list-style-type: none"> Females: Higher percentages in the mid-range (4, 5). Males: Slightly higher in the highest range (6, 7). | <ul style="list-style-type: none"> Overall: <ul style="list-style-type: none"> Ratings were similarly distributed as BCU. Slightly more even spread across the higher scores. Gender Differences: <ul style="list-style-type: none"> Females: Higher representation in the 4, 5, and 6 range. Males: More balanced, with notable scores in the highest range (7). |

ii. Opportunity Recognition, Creation, and Evaluation

| BCU: | MUBS: |
|---|---|
| <ul style="list-style-type: none"> Overall: <ul style="list-style-type: none"> Higher scores (4, 5, 6) were common. Few low ratings. Gender Differences: <ul style="list-style-type: none"> Females: More even spread, with some low scores. Males: More concentrated in the 4, 5, 6 range. | <ul style="list-style-type: none"> Overall: <ul style="list-style-type: none"> Higher scores were frequent. Low scores were rare. Gender Differences: <ul style="list-style-type: none"> Females: Concentrated in the mid to high range. Males: Slightly higher in the highest range (7). |

iii. Decision Making Supported by Critical Analysis, Synthesis, and Judgment

| BCU: | MUBS: |
|--|--|
| <ul style="list-style-type: none"> Overall: <ul style="list-style-type: none"> Scores mostly concentrated in the 4, 5, 6, 7 range. Gender Differences: <ul style="list-style-type: none"> Females: More even spread across 4, 5, 6. Males: Higher at 6 and 7. | <ul style="list-style-type: none"> Overall: <ul style="list-style-type: none"> Scores concentrated in the 5, 6 range. Gender Differences: <ul style="list-style-type: none"> Females: Higher in mid-range (4, 5). Males: More balanced, with high ratings at 6 and 7. |

iv. Implementation of Ideas Through Leadership and Management

| BCU: | MUBS: |
|-------------|--------------|
|-------------|--------------|

| | |
|--|---|
| <ul style="list-style-type: none"> • Overall: <ul style="list-style-type: none"> ○ Higher scores (5, 6) were common. • Gender Differences: <ul style="list-style-type: none"> ○ Females: More even spread, some lower scores. ○ Males: Higher at 5 and 6. | <ul style="list-style-type: none"> • Overall: <ul style="list-style-type: none"> ○ Scores mostly high (5, 6, 7). • Gender Differences: <ul style="list-style-type: none"> ○ Females: Concentrated in mid-range (4, 5). ○ Males: Balanced, with higher scores at 6 and 7. |
|--|---|

v. Action & Reflection

| BCU: | MUBS: |
|--|--|
| <ul style="list-style-type: none"> • Overall: <ul style="list-style-type: none"> ○ Higher scores (4, 5, 6) were common. • Gender Differences: <ul style="list-style-type: none"> ○ Females: Higher in the mid-range (4, 5). ○ Males: Slightly higher in the highest range (6, 7). | <ul style="list-style-type: none"> • Overall: <ul style="list-style-type: none"> ○ High scores (5, 6, 7) were frequent. • Gender Differences: <ul style="list-style-type: none"> ○ Females: Higher in mid-range (4, 5). ○ Males: Higher at 6 and 7. |

vi. Communication and Strategy Skills

| BCU: | MUBS: |
|---|--|
| <ul style="list-style-type: none"> • Overall: <ul style="list-style-type: none"> ○ High scores (5, 6, 7) were common. • Gender Differences: <ul style="list-style-type: none"> ○ Females: Slightly more in mid-range (4, 5). ○ Males: Higher at 5, 6, 7. | <ul style="list-style-type: none"> • Overall: <ul style="list-style-type: none"> ○ Scores mostly high (5, 6, 7). • Gender Differences: <ul style="list-style-type: none"> ○ Females: Even distribution in the mid-range (4, 5, 6). ○ Males: Slightly higher at 6 and 7. |

vii. Digital & Data Skills

| BCU: | MUBS: |
|--|---|
| <ul style="list-style-type: none"> • Overall: <ul style="list-style-type: none"> ○ Scores concentrated in the mid to high range. • Gender Differences: <ul style="list-style-type: none"> ○ Females: Higher in mid-range (4, 5). ○ Males: Slightly higher at 5 and 6. | <ul style="list-style-type: none"> • Overall: <ul style="list-style-type: none"> ○ Scores mostly high (5, 6, 7). • Gender Differences: <ul style="list-style-type: none"> ○ Females: Higher in mid-range (4, 5). ○ Males: Higher at 6 and 7. |

2.4. DIFFERENCES IN POSSESSION OF ENTREPRENEURSHIP SKILLS BETWEEN 1ST AND 3RD YEAR STUDENTS AT BOTH INSTITUTIONS

The analysis revealed no significant differences between 1st and 3rd year students at both institutions, except for Communication at BCU and Opportunity Recognition at MUBS which had p-values of 0.0157 and 0.0017 respectively (Table 88). This means that 1st year students at BCU reported having better communication skills than 3rd year students. At MUBS, 3rd year students reported having better Opportunity Recognition skills than 1st year students.

Table 88: Comparisons between Students' Entrepreneurship skills-based Year of Study (1st Years vs 3rd Years).

| Entrepreneurship Skill | p-values | |
|---------------------------|----------|--------|
| | BCU | MUBS |
| Creativity and Innovation | 0.5610 | 0.1571 |
| Opportunity Recognition | 0.3482 | 0.0017 |
| Decision Making | 0.7815 | 0.4196 |
| Implementation | 0.5008 | 0.2088 |
| Action & Reflection | 0.9335 | 0.2642 |
| Communication | 0.0157 | 0.0886 |
| Digital & Data | 0.6220 | 0.7623 |

DETAILED ANALYSIS AND OBSERVATIONS FOR EACH COHORT

A) Birmingham City University (BCU)

Entrepreneurship Skills Overall:

- First Year: Mean 35.0 (SD 6.7), Median 35.0 (IQR 31-39)
- Third Year: Mean 34.1 (SD 6.3), Median 34.0 (IQR 30-37)
- P-value: 0.4598 (not significant)

Creativity and Innovation & Innovation:

- First Year: Mean 14.1 (SD 2.4), Median 14.0 (IQR 13-16)
- Third Year: Mean 14.4 (SD 3.1), Median 14.0 (IQR 13-16)
- P-value: 0.5320 (not significant)

Opportunity Recognition:

- First Year: Mean 13.6 (SD 2.7), Median 14.0 (IQR 12-15)
- Third Year: Mean 14.0 (SD 2.8), Median 14.0 (IQR 12-16)
- P-value: 0.3758 (not significant)

Decision Making:

- First Year: Mean 14.2 (SD 2.7), Median 14.0 (IQR 12-16)
- Third Year: Mean 14.3 (SD 2.9), Median 15.0 (IQR 13-17)
- P-value: 0.7982 (not significant)

Implementation of Ideas:

- First Year: Mean 14.3 (SD 2.9), Median 14.0 (IQR 12-16)
- Third Year: Mean 15.1 (SD 2.8), Median 15.0 (IQR 14-17)
- P-value: 0.1329 (not significant)

Action & Reflection:

- First Year: Mean 14.6 (SD 2.6), Median 14.0 (IQR 13-17)
- Third Year: Mean 14.5 (SD 2.5), Median 15.0 (IQR 13-16)
- P-value: 0.8559 (not significant)

Communication and Strategy Skills:

- First Year: Mean 15.3 (SD 2.6), Median 16.0 (IQR 13-17)
- Third Year: Mean 15.4 (SD 3.0), Median 16.0 (IQR 14-18)
- P-value: 0.8679 (not significant)

Digital & Data Skills:

- First Year: Mean 13.8 (SD 2.7), Median 14.0 (IQR 12-16)
- Third Year: Mean 12.7 (SD 2.7), Median 13.0 (IQR 11-15)
- P-value: 0.0385 (significant)

B) Makerere University Business School (MUBS)**Entrepreneurship Skills Overall:**

- First Year: Mean 35.6 (SD 7.3), Median 36.0 (IQR 30-42)
- Third Year: Mean 38.9 (SD 5.4), Median 39.5 (IQR 35-42)
- P-value: 0.0451 (significant)

Creativity and Innovation & Innovation:

- First Year: Mean 14.7 (SD 2.5), Median 15.0 (IQR 13-16)
- Third Year: Mean 16.3 (SD 2.4), Median 16.0 (IQR 15-18)
- P-value: 0.0094 (significant)

Opportunity Recognition:

- First Year: Mean 15.1 (SD 2.6), Median 16.0 (IQR 13-17)
- Third Year: Mean 16.3 (SD 2.6), Median 16.0 (IQR 15-19)
- P-value: 0.0625 (approaching significance)

Decision Making:

- First Year: Mean 14.9 (SD 2.8), Median 15.0 (IQR 13-17)
- Third Year: Mean 15.7 (SD 2.5), Median 16.0 (IQR 14-17)
- P-value: 0.2115 (not significant)

Implementation of Ideas:

- First Year: Mean 14.6 (SD 2.7), Median 15.0 (IQR 13-17)
- Third Year: Mean 15.9 (SD 2.1), Median 16.0 (IQR 15-17)
- P-value: 0.0285 (significant)

Action & Reflection:

- First Year: Mean 14.6 (SD 2.6), Median 15.0 (IQR 13-17)

- Third Year: Mean 15.8 (SD 2.4), Median 16.0 (IQR 14-17)
- P-value: 0.0471 (significant)

Communication and Strategy Skills:

- First Year: Mean 16.0 (SD 2.7), Median 17.0 (IQR 15-18)
- Third Year: Mean 17.1 (SD 1.9), Median 17.0 (IQR 16-19)
- P-value: 0.0516 (approaching significance)

Digital & Data Skills:

- First Year: Mean 14.8 (SD 2.8), Median 14.0 (IQR 13-17)
- Third Year: Mean 16.2 (SD 2.8), Median 16.0 (IQR 14-18)
- P-value: 0.0533 (approaching significance)

2.5. STUDENTS' POSSESSION OF ENTREPRENEURSHIP SKILLS BY MODE OF STUDY – FULL TIME VS PART TIME

This section provides analysis of the possession of entrepreneurship skills based on whether the students were full-time or part-time. The data is only for MUBS since all BCU respondents were full time students.

a) Creativity and Innovation and Innovation (Table 89)

The ratings of full-time students were distributed between moderate to high for Creativity and Innovation and innovation skills. Although a sizeable number of part time students rated high on Creativity and Innovation and innovation skills, there were sizeable number of moderate ratings (3 and 4). However, the p-value of 0.4633, suggests that there was no statistically significant difference between full time and part-time students' ratings on possession of Creativity and Innovation and innovation skills (Table 89).

Table 89: Creativity and Innovation and Innovation

| Variable | Overall No (%) | Fulltime No (%) | Part Time No (%) | P-value |
|--|----------------|-----------------|------------------|---------|
| Creativity and Innovation and Innovation | | | | 0.4633 |
| 3 | 8 (11.59) | 1 (5.56) | 7 (13.73) | |
| 4 | 14 (20.29) | 6 (33.33) | 8 (15.69) | |
| 5 | 18 (26.09) | 4 (22.22) | 14 (27.45) | |
| 6 | 17 (24.64) | 5 (27.78) | 12 (23.53) | |
| 7 | 12 (17.39) | 2 (11.11) | 10 (19.61) | |

b) Opportunity Recognition, Creation, and Evaluation (Table 90)

The majority of full-time students rated high indicating strong confidence in their Opportunity Recognition skills. Part-time students rated between moderate to high on this skill. However, the p-value of 0.0402 suggests that there's a statistically significant difference between part-time students and full-time students on Opportunity Recognition skills, with a higher scale bending towards part time students (Table 90).

Table 90: Opportunity Recognition, Creation, and Evaluation

| Variable | Overall | Fulltime | Part Time | P-Value |
|-------------------------|----------|-----------|-----------|---------|
| Opportunity Recognition | | | | 0.0402 |
| 1 | 2 (2.90) | 2 (11.11) | 0 (0.00) | |

| | | | | |
|---|------------|-----------|------------|--|
| 3 | 7 (10.14) | 3 (16.67) | 4 (7.84) | |
| 4 | 10 (14.49) | 0 (0.00) | 10 (19.61) | |
| 5 | 23 (33.33) | 5 (27.78) | 18 (35.29) | |
| 6 | 14 (20.29) | 3 (16.67) | 11 (21.57) | |
| 7 | 13 (18.84) | 5 (27.78) | 8 (15.69) | |

c) Decision Making Supported by Critical Analysis, Synthesis, and Judgment (Table 91)

Both groups of students generally rated themselves high on decision-making skills. While the p-value of 0.2007 is not statistically significant, the ratings of part-time students at MUBS were higher on this skillset (Table 91).

Table 91: Decision Making Supported by Critical Analysis, Synthesis, and Judgment

| Variable | Overall | Fulltime | Part Time | P-Value |
|-----------------|------------|-----------|------------|---------|
| Decision Making | | | | 0.2007 |
| 2 | 2 (2.90) | 2 (11.11) | 0 (0.00) | |
| 3 | 3 (4.35) | 1 (5.56) | 2 (3.92) | |
| 4 | 5 (7.25) | 1 (5.56) | 4 (7.84) | |
| 5 | 23 (33.33) | 4 (22.22) | 19 (37.25) | |
| 6 | 22 (31.88) | 7 (38.89) | 15 (29.41) | |
| 7 | 14 (20.29) | 3 (16.67) | 11 (21.57) | |

d) Implementation of Ideas through Leadership and Management (Table 92)

A majority of both fulltime and parttime students rated themselves highly on possession of leadership and management skills. However, all fulltime students rated themselves from moderate to high on these skills, while for full part time students, there was a notable number of those that rated themselves between low and moderate. Nonetheless, the p-value of 0.5625 suggest that there was no significant difference between the two groups.

Table 92: Implementation of Ideas through Leadership and Management

| Variable | Overall | Fulltime | Part Time | P-Value |
|----------------|------------|-----------|------------|---------|
| Implementation | | | | 0.5625 |
| 1 | 1 (1.45) | 0 (0.00) | 1 (1.96) | |
| 2 | 4 (5.80) | 0 (0.00) | 4 (7.84) | |
| 3 | 4 (5.80) | 0 (0.00) | 4 (7.84) | |
| 4 | 11 (15.94) | 3 (16.67) | 8 (15.69) | |
| 5 | 20 (28.99) | 7 (38.89) | 13 (25.49) | |
| 6 | 18 (26.09) | 6 (33.33) | 12 (23.53) | |
| 7 | 11 (15.94) | 2 (11.11) | 9 (17.65) | |

e) Action and Reflection (Table 93)

For fulltime students, there was more or less equal distribution of the ratings between low to moderate vs high on action and reflection skills. For parttime students however, more ratings were towards the higher end on these skills. the p-value of 0.7257 suggest that there was no statistically significant difference between the two groups.

Table 93: Action and Reflection

| Variable | Overall | Fulltime | Part Time | P - Value |
|-----------------------|------------|-----------|------------|-----------|
| Action and Reflection | | | | 0.7257 |
| 2 | 1 (1.45) | 0 (0.00) | 1 (1.96) | |
| 3 | 6 (8.70) | 2 (11.11) | 4 (7.84) | |
| 4 | 9 (13.04) | 2 (11.11) | 7 (13.73) | |
| 5 | 20 (28.99) | 3 (16.67) | 17 (33.33) | |
| 6 | 20 (28.99) | 7 (38.89) | 13 (25.49) | |
| 7 | 13 (18.84) | 4 (22.22) | 9 (17.65) | |

f) Communication and Strategy Skills (Table 94)

Both groups felt confident in their communication and strategy skills as shown by the high ratings. The p-value of 0.4719 suggest that there was no statistically significant difference between the two groups.

Table 94: Communication and Strategy Skills

| Variable | Overall | Fulltime | Part Time | P-Value |
|---------------|------------|-----------|------------|---------|
| Communication | | | | 0.4719 |
| 2 | 3 (4.35) | 0 (0.00) | 3 (5.88) | |
| 3 | 1 (1.45) | 1 (5.56) | 0 (0.00) | |
| 4 | 6 (8.70) | 2 (11.11) | 4 (7.84) | |
| 5 | 18 (26.09) | 4 (22.22) | 14 (27.45) | |
| 6 | 18 (26.09) | 4 (22.22) | 14 (27.45) | |
| 7 | 23 (33.33) | 7 (38.89) | 16 (31.37) | |

g) Digital and Data Skills (Table 95)

Both groups exhibited confidence in their digital and data skills, with part-time students, although not by a big margin, showing slightly higher ratings. The p-value of 0.4719 suggests that there was no statistically significant difference between the two groups.

Table 95: Digital and Data Skills

| Variable | Overall | Fulltime | Part Time | P - Value |
|------------------|------------|-----------|------------|-----------|
| Digital and Data | | | | 0.3643 |
| 1 | 1 (1.45) | 0 (0.00) | 1 (1.96) | |
| 2 | 4 (5.80) | 1 (5.56) | 3 (5.88) | |
| 3 | 6 (8.70) | 1 (5.56) | 5 (9.80) | |
| 4 | 7 (10.14) | 4 (22.22) | 3 (5.88) | |
| 5 | 17 (24.64) | 6 (33.33) | 11 (21.57) | |
| 6 | 18 (26.09) | 4 (22.22) | 14 (27.45) | |
| 7 | 16 (23.19) | 2 (11.11) | 14 (27.45) | |

Summary: Overall, both full-time and part-time students at MUBS exhibited strong ratings across various entrepreneurship skills, with part-time students generally rating themselves higher in several skills. While most of the ratings appeared different between the two groups, the high p-values signified that there was no statistical significance between them.

2.6. STUDENTS' POSSESSION OF ENTREPRENEURSHIP SKILLS BASED ON THEIR HOME REGIONS

This section focuses specifically on the analysis of key differences in the possession of entrepreneurship skills among students from different regions within Uganda: Central, Eastern, Northern, and Western Uganda. While the analysis was done for both BCU and MUBS, only Uganda's data is presented here because of heavy regional tribal influences whose effect the study sought to explore. Additionally, this section only covers key areas where the differences were significant. These are Communication Skills and Digital and Data Skills.

a) Communication Skills:

There were significant differences for preferences in entrepreneurship skills education methods for communication skills, particularly extra-curricular Skills ($p=0.0147$). When asked which education methods were effective in equipping them with communication skills, students from Central Uganda showed a stronger preference for curricular methods for developing communication skills, those from Eastern Uganda preferred extracurricular methods, those from Northern Uganda leaned towards co-curricular methods while students from Western Uganda showed a balanced preference but slightly favoured extracurricular methods (Table 96). This suggests that the preferences for how communication skills are taught vary widely across regions.

b) Digital and Data Skills

Regarding this skill, central Uganda exhibited strong preference for curricular methods. Eastern Uganda on the other hand exhibited high preference for extracurricular methods, while students from Northern Uganda preferred co-curricular methods. Just like communication skill above, students from Western Uganda had mixed preferences, but this time with a slight tilt towards extracurricular methods, reflecting a practical approach to learning digital skills.

Table 96: Key differences in the possession of entrepreneurship skills among students from different regions within Uganda

| Variable | Overall | Central | Eastern | Northern | Western | P-Value |
|---|------------|-----------|------------|-----------|-----------|---------|
| Creativity and Innovation and innovation | | | | | | 0.5901 |
| 3 | 7 (10.45) | 2 (8.33) | 2 (9.52) | 2 (25.00) | 1 (7.14) | |
| 4 | 13 (19.40) | 5 (20.83) | 7 (33.33) | 0 (0.00) | 1 (7.14) | |
| 5 | 18 (26.87) | 5 (20.83) | 5 (23.81) | 2 (25.00) | 6 (42.86) | |
| 6 | 17 (25.37) | 6 (25.00) | 5 (23.81) | 2 (25.00) | 4 (28.57) | |
| 7 | 12 (17.91) | 6 (25.00) | 2 (9.52) | 2 (25.00) | 2 (14.29) | |
| Opportunity Recognition | | | | | | 0.1854 |
| 1 | 2 (2.99) | 1 (4.17) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |
| 3 | 7 (10.45) | 2 (8.33) | 3 (14.29) | 0 (0.00) | 2 (14.29) | |
| 4 | 9 (13.43) | 2 (8.33) | 3 (14.29) | 2 (25.00) | 2 (14.29) | |
| 5 | 22 (32.84) | 9 (37.50) | 10 (47.62) | 2 (25.00) | 1 (7.14) | |
| 6 | 14 (20.90) | 6 (25.00) | 2 (9.52) | 0 (0.00) | 6 (42.86) | |
| 7 | 13 (19.40) | 4 (16.67) | 2 (9.52) | 4 (50.00) | 3 (21.43) | |
| Decision Making | | | | | | 0.8149 |
| 2 | 2 (2.99) | 1 (4.17) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |
| 3 | 2 (2.99) | 1 (4.17) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |
| 4 | 5 (7.46) | 1 (4.17) | 1 (4.76) | 1 (12.50) | 2 (14.29) | |
| 5 | 22 (32.84) | 8 (33.33) | 7 (33.33) | 1 (12.50) | 6 (42.86) | |
| 6 | 22 (32.84) | 7 (29.17) | 6 (28.57) | 3 (37.50) | 6 (42.86) | |
| 7 | 14 (20.90) | 6 (25.00) | 5 (23.81) | 3 (37.50) | 0 (0.00) | |
| Implementation of ideas | | | | | | 0.9125 |
| 1 | 1 (1.49) | 1 (4.17) | 0 (0.00) | 0 (0.00) | 0 (0.00) | |
| 2 | 3 (4.48) | 0 (0.00) | 1 (4.76) | 1 (12.50) | 1 (7.14) | |
| 3 | 4 (5.97) | 1 (4.17) | 1 (4.76) | 0 (0.00) | 2 (14.29) | |
| 4 | 11 (16.42) | 5 (20.83) | 3 (14.29) | 1 (12.50) | 2 (14.29) | |
| 5 | 19 (28.36) | 8 (33.33) | 5 (23.81) | 1 (12.50) | 5 (35.71) | |
| 6 | 18 (26.87) | 6 (25.00) | 7 (33.33) | 3 (37.50) | 2 (14.29) | |
| 7 | 11 (16.42) | 3 (12.50) | 4 (19.05) | 2 (25.00) | 2 (14.29) | |
| Action & Reflection | | | | | | 0.4956 |
| 2 | 1 (1.49) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |
| 3 | 4 (5.97) | 1 (4.17) | 1 (4.76) | 1 (12.50) | 1 (7.14) | |
| 4 | 9 (13.43) | 2 (8.33) | 1 (4.76) | 2 (25.00) | 4 (28.57) | |
| 5 | 20 (29.85) | 9 (37.50) | 6 (28.57) | 1 (12.50) | 4 (28.57) | |
| 6 | 20 (29.85) | 6 (25.00) | 9 (42.86) | 1 (12.50) | 4 (28.57) | |
| 7 | 13 (19.40) | 6 (25.00) | 3 (14.29) | 3 (37.50) | 1 (7.14) | |
| Communication and Strategy | | | | | | 0.5749 |
| 2 | 3 (4.48) | 2 (8.33) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |

| | | | | | | |
|---------------------------|------------|------------|-----------|-----------|-----------|--------|
| 3 | 1 (1.49) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |
| 4 | 5 (7.46) | 1 (4.17) | 2 (9.52) | 0 (0.00) | 2 (14.29) | |
| 5 | 17 (25.37) | 5 (20.83) | 5 (23.81) | 3 (37.50) | 4 (28.57) | |
| 6 | 18 (26.87) | 9 (37.50) | 3 (14.29) | 4 (50.00) | 2 (14.29) | |
| 7 | 23 (34.33) | 7 (29.17) | 9 (42.86) | 1 (12.50) | 6 (42.86) | |
| | | | | | | |
| Digital & Data | | | | | | 0.1050 |
| 1 | 1 (1.49) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |
| 2 | 4 (5.97) | 1 (4.17) | 2 (9.52) | 1 (12.50) | 0 (0.00) | |
| 3 | 6 (8.96) | 1 (4.17) | 1 (4.76) | 1 (12.50) | 3 (21.43) | |
| 4 | 6 (8.96) | 0 (0.00) | 5 (23.81) | 0 (0.00) | 1 (7.14) | |
| 5 | 17 (25.37) | 6 (25.00) | 5 (23.81) | 1 (12.50) | 5 (35.71) | |
| 6 | 17 (25.37) | 6 (25.00) | 3 (14.29) | 3 (37.50) | 5 (35.71) | |
| 7 | 16 (23.88) | 10 (41.67) | 4 (19.05) | 2 (25.00) | 0 (0.00) | |

2.7. OVERALL CONCLUSION OF FINDINGS ON STUDENT PERCEPTIONS OF ENTREPRENEURIAL ORIENTATION

One of the study's key objectives was to assess how students at the participating universities perceived their own entrepreneurial abilities. The findings revealed that, across the board, students rated themselves as highly entrepreneurial. This perception remained consistent regardless of variables such as age, gender, year of study or country of origin.

2.8. STUDENTS' PERCEPTIONS ON ENTREPRENEURSHIP EDUCATION

The third objective of this research was to explore the extent to which students' entrepreneurship skills were developed through entrepreneurship education at the participating universities. This section presents the findings on the effectiveness and preference of different EE methods (curricular, co-curricular, and extracurricular) in equipping students with various entrepreneurship skills. The analysis compares responses from students at BCU and MUBS.

While there were notable differences in preferences between BCU and MUBS students, in summary, the p-values below indicate that overall, the ratings between the two institutions were statistically significant on the suitability of the different teaching methods for each of the entrepreneurship skills:

- Opportunity Recognition (Curricular): $p = 0.0091$ (significant)
- Opportunity Recognition (Extracurricular): $p < 0.0001$ (highly significant)
- Decision Making (Extracurricular): $p = 0.0389$ (significant)
- Action and Reflection (Co-Curricular): $p = 0.0265$ (significant)
- Communication and Strategy (Extracurricular): $p = 0.0029$ (significant)
- Digital and Data Skills (Curricular): $p = 0.0011$ (significant)

This demonstrates that students perceived different methods to be effective for different types of skills. Looking at the teaching preferences for each skill between BCU and MUBS, key insights emerge which are summarised as follows.

a) Observations on teaching methods on Creativity and Innovation and Innovation (Table 97).

Curricular: This received high ratings at MUBS and moderate ratings at BCU

Co-Curricular: Received mixed ratings, between moderate to high, at both institutions.

Extracurricular: This was deemed most effective overall and received the highest ratings from both universities.

Key Observation: The p-values for curricular (0.4446), co-curricular (0.1892) and extra curricula (0.7123) indicated no substantial difference between MUBS and BCU students for their preference in the effectiveness of teaching methods for Creativity and Innovation and Innovation skill.

Table 97, showing Creativity and Innovation and Innovation in the two universities.

| VARIABLE and RATING | OVERALL Number (%) | BCU Number (%) | MUBS Number (%) | PVALUE |
|---------------------|-----------------------|-------------------|--------------------|--------|
| Curricular | | | | 0.4446 |
| 1 | 6 (3.06) | 5 (3.94) | 1 (1.45) | |
| 2 | 11 (5.61) | 9 (7.09) | 2 (2.90) | |
| 3 | 19 (9.69) | 13 (10.24) | 6 (8.70) | |
| 4 | 38 (19.39) | 28 (22.05) | 10 (14.49) | |
| 5 | 51 (26.02) | 31 (24.41) | 20 (28.99) | |
| 6 | 28 (14.29) | 17 (13.39) | 11 (15.94) | |
| 7 | 43 (21.94) | 24 (18.90) | 19 (27.54) | |
| Co-Curricular | | | | 0.1892 |
| 1 | 4 (2.04) | 4 (3.15) | 0 (0.00) | |
| 2 | 4 (2.04) | 4 (3.15) | 0 (0.00) | |
| 3 | 52 (26.53) | 31 (24.41) | 21 (30.43) | |
| 4 | 37 (18.88) | 28 (22.05) | 9 (13.04) | |
| 5 | 43 (21.94) | 28 (22.05) | 15 (21.74) | |
| 6 | 33 (16.84) | 17 (13.39) | 16 (23.19) | |
| 7 | 22 (11.22) | 14 (11.02) | 8 (11.59) | |
| Extra-Curricular | | | | 0.7123 |
| 1 | 10 (5.10) | 8 (6.30) | 2 (2.90) | |
| 2 | 3 (1.53) | 2 (1.57) | 1 (1.45) | |
| 3 | 16 (8.16) | 12 (9.45) | 4 (5.80) | |
| 4 | 32 (16.33) | 22 (17.32) | 10 (14.49) | |
| 5 | 38 (19.39) | 24 (18.90) | 14 (20.29) | |
| 6 | 47 (23.98) | 31 (24.41) | 16 (23.19) | |
| 7 | 50 (25.51) | 28 (22.05) | 22 (31.88) | |

b) Opportunity Recognition, Creation, And Evaluation (Table 98)

Curricular: Students considered it moderately effective at BCU and highly effective at MUBS.

Co-Curricular: This was perceived to be moderately effective at BCU, and equally split between moderate and high at MUBS.

Extracurricular: This was considered most effective overall, particularly at MUBS where students rated extracurricular methods significantly higher than BCU students. At BCU, it was split between moderate and high, while at MUBS, it was perceived to be highly effective. These differences in perception by students of the two institutions on the effectiveness in teaching methods explains the significant p-values on Curricular (p-value 0.0091) and Extracurricular (p-value < 0.0001).

Table 98: Opportunity Recognition, Creation, and Evaluation.

| VARIABLE and RATING | OVERALL Number (%) | BCU Number (%) | MUBS Number (%) | P-VALUE |
|----------------------------|-------------------------------|---------------------------|----------------------------|----------------|
| Curricular | | | | 0.0091 |
| 1 | 3 (1.53) | 3 (2.36) | 0 (0.00) | |
| 2 | 8 (4.08) | 6 (4.72) | 2 (2.90) | |
| 3 | 16 (8.16) | 8 (6.30) | 8 (11.59) | |
| 4 | 50 (25.51) | 38 (29.92) | 12 (17.39) | |
| 5 | 47 (23.98) | 36 (28.35) | 11 (15.94) | |
| 6 | 40 (20.41) | 22 (17.32) | 18 (26.09) | |
| 7 | 32 (16.33) | 14 (11.02) | 18 (26.09) | |
| | | | | |
| Co-Curricular | | | | 0.0468 |
| 1 | 4 (2.04) | 4 (3.15) | 0 (0.00) | |
| 2 | 6 (3.06) | 4 (3.15) | 2 (2.90) | |
| 3 | 41 (20.92) | 24 (18.90) | 17 (24.64) | |
| 4 | 39 (19.90) | 28 (22.05) | 11 (15.94) | |
| 5 | 55 (28.06) | 42 (33.07) | 13 (18.84) | |
| 6 | 33 (16.84) | 17 (13.39) | 16 (23.19) | |
| 7 | 18 (9.18) | 8 (6.30) | 10 (14.49) | |
| | | | | |
| Extracurricular | | | | <.0001 |
| 1 | 6 (3.06) | 6 (4.72) | 0 (0.00) | |
| 2 | 11 (5.61) | 8 (6.30) | 3 (4.35) | |
| 3 | 29 (14.80) | 22 (17.32) | 7 (10.14) | |
| 4 | 36 (18.37) | 31 (24.41) | 5 (7.25) | |
| 5 | 28 (14.29) | 20 (15.75) | 8 (11.59) | |
| 6 | 38 (19.39) | 12 (9.45) | 26 (37.68) | |
| 7 | 48 (24.49) | 28 (22.05) | 20 (28.99) | |

c) Decision Making Supported by Critical Analysis, Synthesis, And Judgement (Table 99).

Curricular: High ratings from both universities, indicating strong effectiveness. Specifically, most BCU students rated between moderate and high, while most MUBS students curricula methods highly.

Co-Curricular: This showed mixed ratings at both institutions with both BCU and MUBS students posting significant ratings at the lower end (rating 2), implying that this teaching method may not be highly effective for equipping students with decision making skills.

Extracurricular: This was rated moderate to high by BCU students and high by MUBS students. The p-value of 0.0389 shows a difference in perception between BCU and MUBS students with the latter preferring extracurricular methods for decision making skills.

Table 99: Decision Making supported by Critical Analysis and Synthesis

| VARIABLE and RATING | OVERALL Number (%) | BCU Number (%) | MUBS Number (%) | p Value |
|----------------------------|-------------------------------|---------------------------|----------------------------|----------------|
| Curricular | | | | 0.0966 |
| 1 | 3 (1.53) | 3 (2.36) | 0 (0.00) | |
| 2 | 7 (3.57) | 7 (5.51) | 0 (0.00) | |
| 3 | 10 (5.10) | 9 (7.09) | 1 (1.45) | |
| 4 | 35 (17.86) | 23 (18.11) | 12 (17.39) | |
| 5 | 52 (26.53) | 33 (25.98) | 19 (27.54) | |
| 6 | 46 (23.47) | 29 (22.83) | 17 (24.64) | |
| 7 | 43 (21.94) | 23 (18.11) | 20 (28.99) | |
| Co-Curricular | | | | 0.4002 |
| 1 | 2 (1.02) | 2 (1.57) | 0 (0.00) | |
| 2 | 47 (23.98) | 29 (22.83) | 18 (26.09) | |
| 3 | 12 (6.12) | 7 (5.51) | 5 (7.25) | |
| 4 | 27 (13.78) | 21 (16.54) | 6 (8.70) | |
| 5 | 48 (24.49) | 31 (24.41) | 17 (24.64) | |
| 6 | 37 (18.88) | 20 (15.75) | 17 (24.64) | |
| 7 | 23 (11.73) | 17 (13.39) | 6 (8.70) | |
| Extracurricular | | | | 0.0389 |
| 1 | 5 (2.55) | 5 (3.94) | 0 (0.00) | |
| 2 | 9 (4.59) | 4 (3.15) | 5 (7.25) | |
| 3 | 21 (10.71) | 19 (14.96) | 2 (2.90) | |
| 4 | 34 (17.35) | 23 (18.11) | 11 (15.94) | |
| 5 | 48 (24.49) | 31 (24.41) | 17 (24.64) | |
| 6 | 45 (22.96) | 24 (18.90) | 21 (30.43) | |
| 7 | 34 (17.35) | 21 (16.54) | 13 (18.84) | |

d) Implementation Of Ideas Through Leadership and Management (Table 100)

Curricular: Overall, this was rated well, with significant ratings of 5 and 7.

Co-Curricular: This also had positive ratings, especially at MUBS.

Extra-Curricular: This was perceived as effective overall, with high ratings from both MUBS and BCU. However, MUBS students showed a higher preference for extracurricular methods. Notwithstanding this, the P Value was not significant, indicating no substantial difference between MUBS and BCU for this skill.

Table 100: Implementation of Ideas Through Leadership and Management

| VARIABLE and RATING | OVERALL Number (%) | BCU Number (%) | MUBS Number (%) | p-value |
|-------------------------|--------------------|----------------|-----------------|---------|
| Curricular | | | | 0.5283 |
| 1 | 2 (1.02) | 2 (1.57) | 0 (0.00) | |
| 2 | 10 (5.10) | 5 (3.94) | 5 (7.25) | |
| 3 | 22 (11.22) | 16 (12.60) | 6 (8.70) | |
| 4 | 34 (17.35) | 25 (19.69) | 9 (13.04) | |
| 5 | 57 (29.08) | 37 (29.13) | 20 (28.99) | |
| 6 | 29 (14.80) | 16 (12.60) | 13 (18.84) | |
| 7 | 42 (21.43) | 26 (20.47) | 16 (23.19) | |
| Co-Curricular | | | | 0.1465 |
| 1 | 5 (2.55) | 4 (3.15) | 1 (1.45) | |
| 2 | 9 (4.59) | 6 (4.72) | 3 (4.35) | |
| 3 | 17 (8.67) | 15 (11.81) | 2 (2.90) | |
| 4 | 51 (26.02) | 28 (22.05) | 23 (33.33) | |
| 5 | 57 (29.08) | 35 (27.56) | 22 (31.88) | |
| 6 | 33 (16.84) | 20 (15.75) | 13 (18.84) | |
| 7 | 24 (12.24) | 19 (14.96) | 5 (7.25) | |
| Extra-Curricular | | | | 0.3269 |
| 1 | 5 (2.55) | 3 (2.36) | 2 (2.90) | |
| 2 | 8 (4.08) | 8 (6.30) | 0 (0.00) | |
| 3 | 22 (11.22) | 16 (12.60) | 6 (8.70) | |
| 4 | 27 (13.78) | 18 (14.17) | 9 (13.04) | |
| 5 | 47 (23.98) | 30 (23.62) | 17 (24.64) | |
| 6 | 52 (26.53) | 29 (22.83) | 23 (33.33) | |
| 7 | 35 (17.86) | 23 (18.11) | 12 (17.39) | |

e) Action and Reflection (Table 101)

Curricular: This received favourable ratings. At BCU, it received mainly medium to high ratings, while it was mainly rated highly at MUBS.

Co-Curricular: This received mixed ratings at both BCU and MUBS. At BCU, most ratings were between moderate to high, while for MUBS students, the ratings were predominantly low. The difference in preferences between the two institutions is indicated by the statistically significant p-value of 0.0265 (Table 101).

Extracurricular: This showed high ratings for both BCU and MUBS students, suggesting that this was the most preferred method for action and reflection skills

Table 101: Action and Reflection

| VARIABLE and RATING | OVERALL Number (%) | BCU Number (%) | MUBS Number (%) | p-value |
|---------------------|-----------------------|-------------------|--------------------|---------|
| Curricular | | | | 0.2332 |
| 1 | 4 (2.04) | 3 (2.36) | 1 (1.45) | |
| 2 | 5 (2.55) | 2 (1.57) | 3 (4.35) | |
| 3 | 22 (11.22) | 18 (14.17) | 4 (5.80) | |
| 4 | 39 (19.90) | 28 (22.05) | 11 (15.94) | |
| 5 | 47 (23.98) | 25 (19.69) | 22 (31.88) | |
| 6 | 43 (21.94) | 27 (21.26) | 16 (23.19) | |
| 7 | 36 (18.37) | 24 (18.90) | 12 (17.39) | |
| | | | | |
| Co-Curricular | | | | 0.0265 |
| 2 | 7 (3.57) | 7 (5.51) | 0 (0.00) | |
| 3 | 52 (26.53) | 28 (22.05) | 24 (34.78) | |
| 4 | 26 (13.27) | 22 (17.32) | 4 (5.80) | |
| 5 | 49 (25.00) | 32 (25.20) | 17 (24.64) | |
| 6 | 34 (17.35) | 23 (18.11) | 11 (15.94) | |
| 7 | 28 (14.29) | 15 (11.81) | 13 (18.84) | |
| | | | | |
| Extracurricular | | | | 0.3892 |
| 1 | 4 (2.04) | 4 (3.15) | 0 (0.00) | |
| 2 | 9 (4.59) | 6 (4.72) | 3 (4.35) | |
| 3 | 19 (9.69) | 15 (11.81) | 4 (5.80) | |
| 4 | 26 (13.27) | 18 (14.17) | 8 (11.59) | |
| 5 | 53 (27.04) | 30 (23.62) | 23 (33.33) | |
| 6 | 53 (27.04) | 32 (25.20) | 21 (30.43) | |
| 7 | 32 (16.33) | 22 (17.32) | 10 (14.49) | |

f) Communication and Strategy Skills (Table 102)

Curricular: This was rated as moderate to high by BCU students and mostly high by MUBS students.

Co-Curricular: This was rated moderate to high by BCU students and mostly moderate by MUBS students.

Extracurricular: This was rated mostly high by students at both institutions. The significant p-value of 0.0029 emerges from MUBS students' ratings which tended to be higher for extracurricular methods, compared to BCU students.

Table 102: Communication and Strategy Skills.

| VARIABLE and RATING | OVERALL Number (%) | BCU Number (%) | MUBS Number (%) | p-value |
|---------------------|-----------------------|-------------------|--------------------|---------|
| Curricular | | | | 0.5084 |
| 1 | 6 (3.06) | 5 (3.94) | 1 (1.45) | |
| 2 | 6 (3.06) | 3 (2.36) | 3 (4.35) | |
| 3 | 13 (6.63) | 10 (7.87) | 3 (4.35) | |
| 4 | 29 (14.80) | 22 (17.32) | 7 (10.14) | |
| 5 | 43 (21.94) | 27 (21.26) | 16 (23.19) | |
| 6 | 59 (30.10) | 34 (26.77) | 25 (36.23) | |
| 7 | 40 (20.41) | 26 (20.47) | 14 (20.29) | |
| Co-Curricular | | | | 0.1528 |
| 2 | 3 (1.53) | 3 (2.36) | 0 (0.00) | |
| 3 | 14 (7.14) | 11 (8.66) | 3 (4.35) | |
| 4 | 52 (26.53) | 27 (21.26) | 25 (36.23) | |
| 5 | 51 (26.02) | 37 (29.13) | 14 (20.29) | |
| 6 | 40 (20.41) | 25 (19.69) | 15 (21.74) | |
| 7 | 36 (18.37) | 24 (18.90) | 12 (17.39) | |
| Extracurricular | | | | 0.0029 |
| 1 | 7 (3.57) | 7 (5.51) | 0 (0.00) | |
| 2 | 6 (3.06) | 3 (2.36) | 3 (4.35) | |
| 3 | 17 (8.67) | 17 (13.39) | 0 (0.00) | |
| 4 | 19 (9.69) | 14 (11.02) | 5 (7.25) | |
| 5 | 35 (17.86) | 23 (18.11) | 12 (17.39) | |
| 6 | 47 (23.98) | 30 (23.62) | 17 (24.64) | |
| 7 | 65 (33.16) | 33 (25.98) | 32 (46.38) | |

g) Digital and Data Skills (Table 103)

Curricular: While the ratings by both BCU and MUBS were almost similar (BCU students rated it moderate to high, and while MUBS students rated it relatively high), the significant p-value of 0.0011 indicates a statistical difference in preferences in teaching methods for curricular methods for digital and data skills

Co-Curricular: Mixed ratings, with students rating it moderate to high at BCU and moderately for MUBS.

Extracurricular: For BCU, the rating was moderate to high, while at MUBS it was rated high.

Table 103: Digital and Data Skills

| VARIABLE and RATING | OVERALL Number (%) | BCU Number (%) | MUBS Number (%) | p-value |
|---------------------|-----------------------|-------------------|--------------------|---------|
| Curricular | | | | 0.0011 |
| 1 | 7 (3.57) | 7 (5.51) | 0 (0.00) | |
| 2 | 4 (2.04) | 3 (2.36) | 1 (1.45) | |
| 3 | 18 (9.18) | 12 (9.45) | 6 (8.70) | |
| 4 | 25 (12.76) | 22 (17.32) | 3 (4.35) | |
| 5 | 66 (33.67) | 44 (34.65) | 22 (31.88) | |
| 6 | 31 (15.82) | 21 (16.54) | 10 (14.49) | |
| 7 | 45 (22.96) | 18 (14.17) | 27 (39.13) | |
| | | | | |
| Co-Curricular | | | | 0.2707 |
| 1 | 6 (3.09) | 6 (4.80) | 0 (0.00) | |
| 2 | 11 (5.67) | 9 (7.20) | 2 (2.90) | |
| 3 | 59 (30.41) | 35 (28.00) | 24 (34.78) | |
| 4 | 27 (13.92) | 20 (16.00) | 7 (10.14) | |
| 5 | 39 (20.10) | 25 (20.00) | 14 (20.29) | |
| 6 | 35 (18.04) | 20 (16.00) | 15 (21.74) | |
| 7 | 17 (8.76) | 10 (8.00) | 7 (10.14) | |
| | | | | |
| Extracurricular | | | | 0.0655 |
| 1 | 8 (4.08) | 7 (5.51) | 1 (1.45) | |
| 2 | 15 (7.65) | 14 (11.02) | 1 (1.45) | |
| 3 | 27 (13.78) | 19 (14.96) | 8 (11.59) | |
| 4 | 36 (18.37) | 25 (19.69) | 11 (15.94) | |
| 5 | 31 (15.82) | 17 (13.39) | 14 (20.29) | |
| 6 | 43 (21.94) | 23 (18.11) | 20 (28.99) | |
| 7 | 36 (18.37) | 22 (17.32) | 14 (20.29) | |

2.9. STUDENTS' ENTREPRENEURSHIP EDUCATION METHODS' PREFERENCES BY GENDER

Table 104 and Table 106 below provide a summary of the analysis for BCU and MUBS respectively.

a) EE Methods' Preferences by Gender at BCU

Table 104: EE Methods' Preferences by Gender At BCU

| VARIABLE | OVERALL | FEMALE | MALE | P-VALUE |
|--|-------------------|-------------------|-------------------|---------|
| Entrepreneurship skills Overall | | | | |
| Mean (SD) | n=127; 34.7 (6.5) | n= 47; 33.6 (6.7) | n= 80; 35.3 (6.4) | 0.1594 |
| Median (IQR) | 34.0 (31-38) | 34.0 (28-38) | 35.0 (31-39) | 0.1637 |
| | | | | |
| Creativity and Innovation: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n=127; 14.2 (2.6) | n= 47; 14.2 (2.7) | n= 80; 14.2 (2.6) | 0.9860 |
| Median (IQR) | 14.0 (13-16) | 14.0 (12-16) | 14.0 (13-16) | 0.7528 |
| | | | | |
| Opportunity Recognition: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n=127; 13.7 (2.7) | n= 47; 13.7 (3.1) | n= 80; 13.8 (2.5) | 0.9051 |
| Median (IQR) | 14.0 (12-16) | 13.0 (12-17) | 14.0 (13-15) | 0.6042 |
| | | | | |
| Decision Making: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n=127; 14.2 (2.7) | n= 47; 14.7 (3.1) | n= 80; 13.9 (2.5) | 0.0967 |
| Median (IQR) | 14.0 (13-16) | 15.0 (13-17) | 14.0 (13-16) | 0.1306 |
| | | | | |
| Implementation of ideas: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n=127; 14.6 (2.9) | n= 47; 14.7 (2.8) | n= 80; 14.5 (2.9) | 0.7451 |
| Median (IQR) | 15.0 (13-17) | 15.0 (13-17) | 15.0 (13-17) | 0.9040 |
| | | | | |
| Action and Reflection: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n=127; 14.5 (2.6) | n= 47; 14.7 (2.9) | n= 80; 14.5 (2.4) | 0.6781 |
| Median (IQR) | 15.0 (13-16) | 15.0 (13-17) | 15.0 (13-16) | 0.7725 |
| | | | | |
| Communication: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n=127; 15.3 (2.8) | n= 47; 15.8 (2.9) | n= 80; 15.0 (2.6) | 0.1278 |
| Median (IQR) | 16.0 (13-17) | 16.0 (13-18) | 15.0 (14-17) | 0.1333 |
| | | | | |
| Digital and Data Skills: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n=127; 13.4 (2.7) | n= 47; 13.0 (2.7) | n= 80; 13.6 (2.8) | 0.2050 |
| Median (IQR) | 13.0 (12-15) | 13.0 (12-15) | 14.0 (12-16) | 0.2287 |

- i. **Overall Analysis:** Across all the skills, there were no statistically significant differences between male and female students' ratings of the effectiveness of curricular, co-curricular, and extracurricular EE methods at BCU. This suggests that both genders perceive the education methods similarly in terms of their effectiveness.

The only exception was at BCU where there was a noticeable gender difference in students' preference for co-curricular EE methods' effectiveness in equipping them with Action and Reflection Skills, with males showing a tendency towards higher scores (5, 7), while females were more distributed across the mid to high range (4, 6) (Table 105). This suggests that gender plays a role in how students perceive and rate the effectiveness of co-curricular methods in developing their entrepreneurship skills, but only at BCU, and only with Action and Reflection Skills

- ii. **Educational Method Effectiveness:** The consistent ratings indicate that the EE methods are equally valued by both male and female students at BCU. This uniformity suggests that the current educational approaches do not inherently favour one gender over another, which is positive for inclusivity and equality in education.

Table 105: EE Methods' Preferences by Gender at BCU (Action & Reflection Only)

| VARIABLE | OVERALL | FEMALE | MALE | P-VALUE |
|---------------------------------------|------------|------------|------------|---------|
| Action and Reflection - Co-Curricular | | | | 0.0120 |
| 2 | 7 (5.51) | 1 (2.13) | 6 (7.50) | |
| 3 | 28 (22.05) | 9 (19.15) | 19 (23.75) | |
| 4 | 22 (17.32) | 14 (29.79) | 8 (10.00) | |
| 5 | 32 (25.20) | 8 (17.02) | 24 (30.00) | |
| 6 | 23 (18.11) | 12 (25.53) | 11 (13.75) | |
| 7 | 15 (11.81) | 3 (6.38) | 12 (15.00) | |

b) EE Methods' Preferences by Gender at MUBS (Table 106)

Table 106 Showing EE Methods' Preferences by Gender At MUBS

| VARIABLE | OVERALL | FEMALE | MALE | P-VALUE |
|---------------------------------|-------------------|-------------------|-------------------|---------|
| Entrepreneurship skills Overall | | | | |
| Mean (SD) | n= 69; 37.0 (6.7) | n= 39; 36.1 (6.9) | n= 28; 39.0 (5.5) | 0.0636 |

| | | | | |
|--|-------------------|-------------------|-------------------|--------|
| Median (IQR) | 38.0 (33-42) | 36.0 (31-42) | 40.5 (37-43) | 0.0977 |
| | | | | |
| Creativity and Innovation: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n= 69; 15.4 (2.6) | n= 39; 15.2 (2.5) | n= 28; 15.7 (2.7) | 0.3871 |
| Median (IQR) | 16.0 (14-17) | 16.0 (13-17) | 16.0 (15-18) | 0.4255 |
| | | | | |
| Opportunity Recognition: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n= 69; 15.6 (2.7) | n= 39; 15.2 (2.9) | n= 28; 16.3 (2.2) | 0.0895 |
| Median (IQR) | 16.0 (14-17) | 15.0 (12-17) | 16.0 (15-18) | 0.1532 |
| | | | | |
| Decision Making: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n= 69; 15.3 (2.7) | n= 39; 14.8 (2.7) | n= 28; 15.9 (2.4) | 0.0909 |
| Median (IQR) | 16.0 (14-17) | 15.0 (13-17) | 16.5 (14-18) | 0.0999 |
| | | | | |
| Implementation of ideas: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n= 69; 15.1 (2.5) | n= 39; 14.9 (2.8) | n= 28; 15.4 (2.2) | 0.3759 |
| Median (IQR) | 15.0 (14-17) | 15.0 (13-17) | 15.0 (14-17) | 0.5164 |
| | | | | |
| Action and Reflection: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n= 69; 15.1 (2.6) | n= 39; 14.9 (2.7) | n= 28; 15.3 (2.3) | 0.5641 |
| Median (IQR) | 15.0 (13-17) | 15.0 (13-17) | 16.0 (14-17) | 0.5166 |
| | | | | |
| Communication: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n= 69; 16.5 (2.5) | n= 39; 16.1 (2.8) | n= 28; 16.8 (1.9) | 0.2601 |
| Median (IQR) | 17.0 (16-18) | 16.0 (15-18) | 17.0 (16-19) | 0.3210 |
| | | | | |
| Digital and Data: Curricular, Cocurricular and Extra Curricular | | | | |
| Mean (SD) | n= 69; 15.4 (2.9) | n= 39; 15.2 (2.7) | n= 28; 15.7 (2.9) | 0.4826 |
| Median (IQR) | 16.0 (13-18) | 14.0 (13-18) | 16.0 (14-18) | 0.2542 |

Interpretation Of the Results: The overall perception shows a marginally significant difference between genders, with males perceiving most of the methods as slightly more effective overall than females. However, the p-values indicate that these differences are not statistically significant at the conventional 0.05 level. This suggests that both genders at MUBS perceive the education methods similarly in terms of their effectiveness and that, possibly, the university's educational approaches do not inherently favour one gender over another.

Comparison with BCU Results: The above analysis reveals mostly consistent perceptions of the effectiveness of EE methods at MUBS and BCU. While minor trends exist, particularly at MUBS, these differences are not statistically significant, indicating a generally equitable

approach to EE at both institutions. This is a positive outcome for promoting gender inclusivity in EE.

2.10. EE METHODS PREFERENCES BY ACADEMIC YEAR OF STUDY

This section presents the detailed results and analysis of the perceived effectiveness of each teaching method based on the year of study. The analysis was to identify any significant differences in preferences between 1st years and 3rd years. The study highlights notable differences between 1st years and 3rd students at MUBS and BCU, with MUBS showing more significant improvements. Below are the summaries of the analyses.

a) Overall Academic Year Differences

3rd Year Students: Third-year students at both institutions generally show higher preferences, indicating that as students advance, they generally tend to recognise the value and effectiveness of the EE methods more clearly. The data also shows a general trend where third-year students at both institutions have a higher preference for more active and practical methods of teaching entrepreneurship, such as co-curricular and extra-curricular activities, compared to first-year students. This may suggest that as students progress through their academic journey, they gain more appreciation for practical, hands-on experiences that complement their theoretical learning. 1st year students might need additional support or introductory modules to better appreciate these methods early on.

b) Institutional Differences: BCU vs. MUBS

MUBS students tend to rate the effectiveness of the methods higher, especially in later years, suggesting that the educational methods at MUBS might be more effective or better received. This could be due to different teaching methodologies, support structures, a more impactful entrepreneurship ecosystem or engagement with real-world entrepreneurial activities. There is need to explore this further.

BCU shows no such significant change. This suggests a potential need to review the teaching methods or support systems at BCU to ensure continuous skill development. Alternatively, BCU could benefit from investigating and possibly integrating successful elements from MUBS's approach to enhance its own programmes.

c) Skill-Specific Preferences:

- i. **Creativity and Innovation and Innovation:** Both first and third-year students at MUBS and BCU showed a strong preference for extracurricular activities in fostering Creativity and Innovation and innovation. However, there was significant improvement in ratings for teaching methods as students' progress at MUBS. There was no such change at BCU for the teaching methods in this skill.
- ii. **Opportunity Recognition:** Third-year students at both universities preferred co-curricular and extracurricular methods, indicating the importance of real-world applications and experiences in recognising, and evaluating opportunities. However, there were borderline significant improvement in ratings at MUBS, while there was no change at BCU.
- iii. **Decision Making:** Higher ratings for practical methods (co-curricular and extra-curricular) in third-year students suggest that decision-making skills are best developed through hands-on practice and reflection. There were no significant changes between academic years at either institution.
- iv. **Implementation of Ideas:** Similar to other skills, third-year students showed a preference for more practical approaches. However, there was a notable and significant improvement in ratings for teaching methods as students' progress at MUBS. There was no such change at BCU.
- v. **Action and Reflection:** There was significant improvement in ratings for teaching methods as students' progress at MUBS. No change at BCU.
- vi. **Communication and Strategy Skills:** Overall, there was a higher preference among 3rd years for practical methods. There was borderline significant improvement in ratings at MUBS, with no changes at BCU.
- vii. **Digital and Data Skills:** The emphasis on practical methods by third-year students underscores the importance of digital proficiency and data literacy in modern entrepreneurship. Notably, however, there was a significant decrease in ratings at BCU, borderline significant improvement at MUBS. Specifically, and especially given the significant decrease in digital skills at BCU, a targeted intervention to bolster these skills is necessary, especially given the increasing importance of digital proficiency in entrepreneurship.

Overall Student EE Preferences by Academic Year Of Study

Overall, the findings indicate a clear trend towards valuing practical, experiential learning methods as students' progress in their academic careers. The differences between MUBS and BCU also suggest that local contexts and programme structures significantly influence student preferences.

2.11. STUDENTS' ENTREPRENEURSHIP EDUCATION METHODS' PREFERENCES BASED ON YEAR OF STUDY

The analysis revealed no significant differences between 1st and 3rd year students at both institutions, except for Communication at BCU and Opportunity Recognition at MUBS which had p-values of 0.0157 and 0.0017 respectively (Table 107). This means that 1st year students at BCU reported having better communication skills than 3rd year students. At MUBS, 3rd year students reported having better Opportunity Recognition skills than 1st year students.

Table 107: Statistical expression of Entrepreneurship Education Methods' Preferences for Each Skill At BCU

| Variable | Overall | First Year | Third Year | p-value |
|--|--------------------|--------------------|--------------------|---------|
| Entrepreneurship skills Overall | | | | |
| Mean (SD) | n=127 ; 34.7 (6.5) | n= 85 ; 35.0 (6.7) | n= 42 ; 34.1 (6.3) | 0.4598 |
| Median (IQR) | 34.0 (31-38) | 35.0 (31-39) | 34.0 (30-37) | 0.3046 |
| Creativity and Innovation: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n=127 ; 14.2 (2.6) | n= 85 ; 14.1 (2.4) | n= 42 ; 14.4 (3.1) | 0.5320 |
| Median (IQR) | 14.0 (13-16) | 14.0 (13-16) | 14.0 (13-16) | 0.3374 |
| Opportunity Recognition: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n=127 ; 13.7 (2.7) | n= 85 ; 13.6 (2.7) | n= 42 ; 14.0 (2.8) | 0.3758 |
| Median (IQR) | 14.0 (12-16) | 14.0 (12-15) | 14.0 (12-16) | 0.3004 |
| Decision Making: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n=127 ; 14.2 (2.7) | n= 85 ; 14.2 (2.7) | n= 42 ; 14.3 (2.9) | 0.7982 |
| Median (IQR) | 14.0 (13-16) | 14.0 (12-16) | 15.0 (13-17) | 0.4956 |
| Implementation of ideas: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n=127 ; 14.6 (2.9) | n= 85 ; 14.3 (2.9) | n= 42 ; 15.1 (2.8) | 0.1329 |
| Median (IQR) | 15.0 (13-17) | 14.0 (12-16) | 15.0 (14-17) | 0.0887 |
| Action & Reflection: Curricular, Cocurricular & Extra Curricular | | | | |

| | | | | |
|---|--------------------|--------------------|--------------------|--------|
| Mean (SD) | n=127 ; 14.5 (2.6) | n= 85 ; 14.6 (2.6) | n= 42 ; 14.5 (2.5) | 0.8559 |
| Median (IQR) | 15.0 (13-16) | 14.0 (13-17) | 15.0 (13-16) | 0.9301 |
| Communication: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n=127 ; 15.3 (2.8) | n= 85 ; 15.3 (2.6) | n= 42 ; 15.4 (3.0) | 0.8679 |
| Median (IQR) | 16.0 (13-17) | 16.0 (13-17) | 16.0 (14-18) | 0.7647 |
| Digital & Data: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n=127 ; 13.4 (2.7) | n= 85 ; 13.8 (2.7) | n= 42 ; 12.7 (2.7) | 0.0385 |
| Median (IQR) | 13.0 (12-15) | 14.0 (12-16) | 13.0 (11-15) | 0.0786 |

Table 108: Statistical expression of Entrepreneurship Education Methods' Preferences for each skill by Year of Study At MUBS

| Variable | Overall | First Year | Third Year | p-value |
|--|--------------------|--------------------|--------------------|---------|
| Entrepreneurship skills Overall | | | | |
| Mean (SD) | n= 69 ; 37.0 (6.7) | n= 39 ; 35.6 (7.3) | n= 30 ; 38.9 (5.4) | 0.0451 |
| Median (IQR) | 38.0 (33-42) | 36.0 (30-42) | 39.5 (35-42) | 0.0467 |
| Creativity and Innovation: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n= 69 ; 15.4 (2.6) | n= 39 ; 14.7 (2.5) | n= 30 ; 16.3 (2.4) | 0.0094 |
| Median (IQR) | 16.0 (14-17) | 15.0 (13-16) | 16.0 (15-18) | 0.0189 |
| Opportunity Recognition: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n= 69 ; 15.6 (2.7) | n= 39 ; 15.1 (2.6) | n= 30 ; 16.3 (2.6) | 0.0625 |
| Median (IQR) | 16.0 (14-17) | 16.0 (13-17) | 16.0 (15-19) | 0.1183 |
| Decision Making: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n= 69 ; 15.3 (2.7) | n= 39 ; 14.9 (2.8) | n= 30 ; 15.7 (2.5) | 0.2115 |
| Median (IQR) | 16.0 (14-17) | 15.0 (13-17) | 16.0 (14-17) | 0.2699 |
| Implimentation of ideas: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n= 69 ; 15.1 (2.5) | n= 39 ; 14.6 (2.7) | n= 30 ; 15.9 (2.1) | 0.0285 |
| Median (IQR) | 15.0 (14-17) | 15.0 (13-17) | 16.0 (15-17) | 0.0319 |
| Action & Reflection: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n= 69 ; 15.1 (2.6) | n= 39 ; 14.6 (2.6) | n= 30 ; 15.8 (2.4) | 0.0471 |
| Median (IQR) | 15.0 (13-17) | 15.0 (13-17) | 16.0 (14-17) | 0.0463 |
| Communication: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n= 69 ; 16.5 (2.5) | n= 39 ; 16.0 (2.7) | n= 30 ; 17.1 (1.9) | 0.0516 |
| Median (IQR) | 17.0 (16-18) | 17.0 (15-18) | 17.0 (16-19) | 0.1546 |
| Digital & Data: Curricular, Cocurricular & Extra Curricular | | | | |
| Mean (SD) | n= 69 ; 15.4 (2.9) | n= 39 ; 14.8 (2.8) | n= 30 ; 16.2 (2.8) | 0.0533 |
| Median (IQR) | 16.0 (13-18) | 14.0 (13-17) | 16.0 (14-18) | 0.0490 |

2.12. STUDENTS' ENTREPRENEURSHIP EDUCATION METHODS' PREFERENCES BASED ON THEIR HOME REGIONS

Table 109 includes data on EE preferences from all student participants (BCU and MUBS). However, these regional factors were considered significant for the study, but only in Uganda. This section, therefore, focuses specifically on the analysis of key differences in the possession of entrepreneurship skills among students from different regions within Uganda. Additionally, this section only covers key areas where the differences were significant. These are Communication Skills and Digital and Data Skills.

a) Communication Skills:

There were significant differences for preferences in entrepreneurship skills education methods for communication skills, particularly extra-curricular Skills ($p=0.0147$). When asked which education methods were effective in equipping them with communication skills, students from Central Uganda showed a stronger preference for curricular methods for developing communication skills, those from Eastern Uganda preferred extracurricular methods, those from Northern Uganda leaned towards co-curricular methods while students from Western Uganda showed a balanced preference but slightly favoured extracurricular methods (Table 109). This suggests that the preferences for how communication skills are taught vary widely across regions.

b) Digital and Data Skills

Regarding this skill, central Uganda exhibited strong preference for curricular methods. Eastern Uganda on the other hand exhibited high preference for extracurricular methods, while students from Northern Uganda preferred co-curricular methods. Just like communication skill above, students from Western Uganda had mixed preferences, but this time with a slight tilt towards extracurricular methods, reflecting a practical approach to learning digital skills.

Table 109: Students' entrepreneurship education methods' preferences based on their home regions

| Variable | Overall | Central | Eastern | Northern | Western | p-value |
|--------------------------------------|---------|---------|---------|----------|---------|---------|
| Creativity and Innovation Curricular | | | | | | |

| | | | | | | |
|--|------------|------------|------------|-----------|-----------|--------|
| 1 | 1 (1.49) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 0 (0.00) | 0.1744 |
| 2 | 2 (2.99) | 0 (0.00) | 0 (0.00) | 1 (12.50) | 1 (7.14) | |
| 3 | 5 (7.46) | 1 (4.17) | 1 (4.76) | 2 (25.00) | 1 (7.14) | |
| 4 | 10 (14.93) | 2 (8.33) | 7 (33.33) | 0 (0.00) | 1 (7.14) | |
| 5 | 19 (28.36) | 10 (41.67) | 3 (14.29) | 1 (12.50) | 5 (35.71) | |
| 6 | 11 (16.42) | 4 (16.67) | 2 (9.52) | 2 (25.00) | 3 (21.43) | |
| 7 | 19 (28.36) | 7 (29.17) | 7 (33.33) | 2 (25.00) | 3 (21.43) | |
| | | | | | | |
| Creativity and Innovation Co-Curricular | | | | | | |
| 3 | 21 (31.34) | 5 (20.83) | 7 (33.33) | 3 (37.50) | 6 (42.86) | 0.0690 |
| 4 | 9 (13.43) | 4 (16.67) | 5 (23.81) | 0 (0.00) | 0 (0.00) | |
| 5 | 14 (20.90) | 7 (29.17) | 2 (9.52) | 1 (12.50) | 4 (28.57) | |
| 6 | 15 (22.39) | 2 (8.33) | 6 (28.57) | 4 (50.00) | 3 (21.43) | |
| 7 | 8 (11.94) | 6 (25.00) | 1 (4.76) | 0 (0.00) | 1 (7.14) | |
| | | | | | | |
| Creativity and Innovation Extra Curricular | | | | | | |
| 1 | 1 (1.49) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 0 (0.00) | 0.4798 |
| 2 | 1 (1.49) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |
| 3 | 4 (5.97) | 1 (4.17) | 1 (4.76) | 2 (25.00) | 0 (0.00) | |
| 4 | 10 (14.93) | 1 (4.17) | 4 (19.05) | 2 (25.00) | 3 (21.43) | |
| 5 | 14 (20.90) | 5 (20.83) | 4 (19.05) | 1 (12.50) | 4 (28.57) | |
| 6 | 16 (23.88) | 8 (33.33) | 5 (23.81) | 0 (0.00) | 3 (21.43) | |
| 7 | 21 (31.34) | 9 (37.50) | 5 (23.81) | 3 (37.50) | 4 (28.57) | |
| | | | | | | |
| Opportunity Recognition - Curricular | | | | | | |
| 2 | 2 (2.99) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 1 (7.14) | 0.1365 |
| 3 | 8 (11.94) | 0 (0.00) | 4 (19.05) | 3 (37.50) | 1 (7.14) | |
| 4 | 12 (17.91) | 7 (29.17) | 1 (4.76) | 1 (12.50) | 3 (21.43) | |
| 5 | 10 (14.93) | 3 (12.50) | 6 (28.57) | 0 (0.00) | 1 (7.14) | |
| 6 | 17 (25.37) | 7 (29.17) | 4 (19.05) | 1 (12.50) | 5 (35.71) | |
| 7 | 18 (26.87) | 7 (29.17) | 5 (23.81) | 3 (37.50) | 3 (21.43) | |
| | | | | | | |
| Opportunity Recognition Co-Curricular | | | | | | |
| 2 | 2 (2.99) | 0 (0.00) | 2 (9.52) | 0 (0.00) | 0 (0.00) | 0.0796 |
| 3 | 16 (23.88) | 7 (29.17) | 4 (19.05) | 1 (12.50) | 4 (28.57) | |
| 4 | 11 (16.42) | 6 (25.00) | 4 (19.05) | 0 (0.00) | 1 (7.14) | |
| 5 | 13 (19.40) | 6 (25.00) | 4 (19.05) | 3 (37.50) | 0 (0.00) | |
| 6 | 15 (22.39) | 2 (8.33) | 6 (28.57) | 1 (12.50) | 6 (42.86) | |
| 7 | 10 (14.93) | 3 (12.50) | 1 (4.76) | 3 (37.50) | 3 (21.43) | |
| | | | | | | |
| Opportunity Recognition - Extracurricular | | | | | | |
| 2 | 2 (2.99) | 0 (0.00) | 1 (4.76) | 1 (12.50) | 0 (0.00) | 0.4435 |
| 3 | 7 (10.45) | 2 (8.33) | 2 (9.52) | 0 (0.00) | 3 (21.43) | |
| 4 | 5 (7.46) | 3 (12.50) | 2 (9.52) | 0 (0.00) | 0 (0.00) | |
| 5 | 8 (11.94) | 4 (16.67) | 3 (14.29) | 0 (0.00) | 1 (7.14) | |
| 6 | 25 (37.31) | 7 (29.17) | 10 (47.62) | 4 (50.00) | 4 (28.57) | |

| | | | | | | |
|---|------------|------------|------------|-----------|-----------|--------|
| 7 | 20 (29.85) | 8 (33.33) | 3 (14.29) | 3 (37.50) | 6 (42.86) | |
| | | | | | | |
| Decision Making - Curricular | | | | | | |
| 3 | 1 (1.49) | 0 (0.00) | 0 (0.00) | 0 (0.00) | 1 (7.14) | 0.6250 |
| 4 | 10 (14.93) | 4 (16.67) | 3 (14.29) | 2 (25.00) | 1 (7.14) | |
| 5 | 19 (28.36) | 8 (33.33) | 4 (19.05) | 2 (25.00) | 5 (35.71) | |
| 6 | 17 (25.37) | 7 (29.17) | 4 (19.05) | 2 (25.00) | 4 (28.57) | |
| 7 | 20 (29.85) | 5 (20.83) | 10 (47.62) | 2 (25.00) | 3 (21.43) | |
| | | | | | | |
| Decision Making - Co-Curricular | | | | | | |
| 2 | 17 (25.37) | 4 (16.67) | 5 (23.81) | 3 (37.50) | 5 (35.71) | 0.5765 |
| 3 | 5 (7.46) | 2 (8.33) | 3 (14.29) | 0 (0.00) | 0 (0.00) | |
| 4 | 5 (7.46) | 2 (8.33) | 2 (9.52) | 1 (12.50) | 0 (0.00) | |
| 5 | 17 (25.37) | 7 (29.17) | 7 (33.33) | 1 (12.50) | 2 (14.29) | |
| 6 | 17 (25.37) | 7 (29.17) | 3 (14.29) | 3 (37.50) | 4 (28.57) | |
| 7 | 6 (8.96) | 2 (8.33) | 1 (4.76) | 0 (0.00) | 3 (21.43) | |
| | | | | | | |
| Decision Making - Extracurricular | | | | | | |
| 2 | 4 (5.97) | 0 (0.00) | 2 (9.52) | 1 (12.50) | 1 (7.14) | 0.5915 |
| 3 | 2 (2.99) | 1 (4.17) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |
| 4 | 11 (16.42) | 2 (8.33) | 6 (28.57) | 1 (12.50) | 2 (14.29) | |
| 5 | 16 (23.88) | 5 (20.83) | 4 (19.05) | 1 (12.50) | 6 (42.86) | |
| 6 | 21 (31.34) | 10 (41.67) | 6 (28.57) | 3 (37.50) | 2 (14.29) | |
| 7 | 13 (19.40) | 6 (25.00) | 2 (9.52) | 2 (25.00) | 3 (21.43) | |
| | | | | | | |
| Implementation Of Ideas - Curricular | | | | | | |
| 2 | 5 (7.46) | 0 (0.00) | 1 (4.76) | 1 (12.50) | 3 (21.43) | 0.0630 |
| 3 | 5 (7.46) | 2 (8.33) | 2 (9.52) | 0 (0.00) | 1 (7.14) | |
| 4 | 9 (13.43) | 4 (16.67) | 1 (4.76) | 3 (37.50) | 1 (7.14) | |
| 5 | 19 (28.36) | 8 (33.33) | 2 (9.52) | 3 (37.50) | 6 (42.86) | |
| 6 | 13 (19.40) | 4 (16.67) | 6 (28.57) | 1 (12.50) | 2 (14.29) | |
| 7 | 16 (23.88) | 6 (25.00) | 9 (42.86) | 0 (0.00) | 1 (7.14) | |
| | | | | | | |
| Implementation of ideas - Co-Curricular | | | | | | |
| 1 | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0 (0.00) | 0.7410 |
| 2 | 3 (4.48) | 1 (4.17) | 2 (9.52) | 0 (0.00) | 0 (0.00) | |
| 3 | 2 (2.99) | 1 (4.17) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |
| 4 | 23 (34.33) | 8 (33.33) | 6 (28.57) | 3 (37.50) | 6 (42.86) | |
| 5 | 22 (32.84) | 10 (41.67) | 8 (38.10) | 2 (25.00) | 2 (14.29) | |
| 6 | 12 (17.91) | 2 (8.33) | 4 (19.05) | 2 (25.00) | 4 (28.57) | |
| 7 | 5 (7.46) | 2 (8.33) | 0 (0.00) | 1 (12.50) | 2 (14.29) | |
| | | | | | | |
| Implementation Of Ideas - Extracurricular | | | | | | |
| 1 | 1 (1.49) | 0 (0.00) | 0 (0.00) | 1 (12.50) | 0 (0.00) | 0.2339 |
| 3 | 5 (7.46) | 1 (4.17) | 1 (4.76) | 0 (0.00) | 3 (21.43) | |
| 4 | 9 (13.43) | 3 (12.50) | 4 (19.05) | 1 (12.50) | 1 (7.14) | |

| | | | | | | |
|---|------------|------------|-----------|-----------|-----------|--------|
| 5 | 17 (25.37) | 4 (16.67) | 5 (23.81) | 3 (37.50) | 5 (35.71) | |
| 6 | 23 (34.33) | 10 (41.67) | 8 (38.10) | 1 (12.50) | 4 (28.57) | |
| 7 | 12 (17.91) | 6 (25.00) | 3 (14.29) | 2 (25.00) | 1 (7.14) | |
| | | | | | | |
| Action & Reflection - Curricular | | | | | | |
| 1 | 1 (1.49) | 0 (0.00) | 0 (0.00) | 1 (12.50) | 0 (0.00) | 0.4256 |
| 2 | 3 (4.48) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 2 (14.29) | |
| 3 | 4 (5.97) | 1 (4.17) | 2 (9.52) | 1 (12.50) | 0 (0.00) | |
| 4 | 10 (14.93) | 3 (12.50) | 3 (14.29) | 1 (12.50) | 3 (21.43) | |
| 5 | 21 (31.34) | 9 (37.50) | 7 (33.33) | 2 (25.00) | 3 (21.43) | |
| 6 | 16 (23.88) | 5 (20.83) | 4 (19.05) | 3 (37.50) | 4 (28.57) | |
| 7 | 12 (17.91) | 6 (25.00) | 4 (19.05) | 0 (0.00) | 2 (14.29) | |
| | | | | | | |
| Action & Reflection - Co-Curricular | | | | | | |
| 3 | 23 (34.33) | 6 (25.00) | 8 (38.10) | 3 (37.50) | 6 (42.86) | 0.5241 |
| 4 | 4 (5.97) | 4 (16.67) | 0 (0.00) | 0 (0.00) | 0 (0.00) | |
| 5 | 17 (25.37) | 7 (29.17) | 6 (28.57) | 2 (25.00) | 2 (14.29) | |
| 6 | 10 (14.93) | 3 (12.50) | 2 (9.52) | 2 (25.00) | 3 (21.43) | |
| 7 | 13 (19.40) | 4 (16.67) | 5 (23.81) | 1 (12.50) | 3 (21.43) | |
| | | | | | | |
| Action & Reflection - Extracurricular | | | | | | |
| 2 | 2 (2.99) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 1 (7.14) | 0.3270 |
| 3 | 3 (4.48) | 1 (4.17) | 0 (0.00) | 0 (0.00) | 2 (14.29) | |
| 4 | 8 (11.94) | 1 (4.17) | 3 (14.29) | 2 (25.00) | 2 (14.29) | |
| 5 | 23 (34.33) | 6 (25.00) | 8 (38.10) | 5 (62.50) | 4 (28.57) | |
| 6 | 21 (31.34) | 11 (45.83) | 6 (28.57) | 0 (0.00) | 4 (28.57) | |
| 7 | 10 (14.93) | 5 (20.83) | 3 (14.29) | 1 (12.50) | 1 (7.14) | |
| | | | | | | |
| Communication Strategy - Curricular | | | | | | |
| 1 | 1 (1.49) | 0 (0.00) | 0 (0.00) | 1 (12.50) | 0 (0.00) | 0.3867 |
| 2 | 2 (2.99) | 0 (0.00) | 2 (9.52) | 0 (0.00) | 0 (0.00) | |
| 3 | 3 (4.48) | 2 (8.33) | 0 (0.00) | 0 (0.00) | 1 (7.14) | |
| 4 | 6 (8.96) | 1 (4.17) | 3 (14.29) | 1 (12.50) | 1 (7.14) | |
| 5 | 16 (23.88) | 6 (25.00) | 6 (28.57) | 2 (25.00) | 2 (14.29) | |
| 6 | 25 (37.31) | 9 (37.50) | 6 (28.57) | 2 (25.00) | 8 (57.14) | |
| 7 | 14 (20.90) | 6 (25.00) | 4 (19.05) | 2 (25.00) | 2 (14.29) | |
| | | | | | | |
| Communication and strategy skills - Co-Curricular | | | | | | |
| 3 | 3 (4.48) | 0 (0.00) | 2 (9.52) | 0 (0.00) | 1 (7.14) | 0.8348 |
| 4 | 24 (35.82) | 8 (33.33) | 6 (28.57) | 4 (50.00) | 6 (42.86) | |
| 5 | 13 (19.40) | 4 (16.67) | 5 (23.81) | 1 (12.50) | 3 (21.43) | |
| 6 | 15 (22.39) | 5 (20.83) | 5 (23.81) | 2 (25.00) | 3 (21.43) | |
| 7 | 12 (17.91) | 7 (29.17) | 3 (14.29) | 1 (12.50) | 1 (7.14) | |
| | | | | | | |
| Communication Strategy - Extracurricular | | | | | | |
| 2 | 2 (2.99) | 1 (4.17) | 0 (0.00) | 1 (12.50) | 0 (0.00) | 0.0147 |

| | | | | | | |
|---|------------|------------|------------|-----------|-----------|--------|
| 4 | 4 (5.97) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 3 (21.43) | |
| 5 | 12 (17.91) | 2 (8.33) | 7 (33.33) | 1 (12.50) | 2 (14.29) | |
| 6 | 17 (25.37) | 6 (25.00) | 3 (14.29) | 1 (12.50) | 7 (50.00) | |
| 7 | 32 (47.76) | 15 (62.50) | 10 (47.62) | 5 (62.50) | 2 (14.29) | |
| | | | | | | |
| Digital & Data - Curricular | | | | | | |
| 2 | 1 (1.49) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 0 (0.00) | 0.0988 |
| 3 | 6 (8.96) | 2 (8.33) | 0 (0.00) | 1 (12.50) | 3 (21.43) | |
| 4 | 3 (4.48) | 1 (4.17) | 1 (4.76) | 0 (0.00) | 1 (7.14) | |
| 5 | 22 (32.84) | 5 (20.83) | 8 (38.10) | 1 (12.50) | 8 (57.14) | |
| 6 | 9 (13.43) | 5 (20.83) | 1 (4.76) | 3 (37.50) | 0 (0.00) | |
| 7 | 26 (38.81) | 11 (45.83) | 10 (47.62) | 3 (37.50) | 2 (14.29) | |
| | | | | | | |
| Digital and Data Skills - Co-Curricular | | | | | | |
| 2 | 2 (2.99) | 1 (4.17) | 1 (4.76) | 0 (0.00) | 0 (0.00) | 0.7901 |
| 3 | 23 (34.33) | 9 (37.50) | 5 (23.81) | 3 (37.50) | 6 (42.86) | |
| 4 | 6 (8.96) | 1 (4.17) | 2 (9.52) | 1 (12.50) | 2 (14.29) | |
| 5 | 14 (20.90) | 7 (29.17) | 6 (28.57) | 1 (12.50) | 0 (0.00) | |
| 6 | 15 (22.39) | 3 (12.50) | 6 (28.57) | 2 (25.00) | 4 (28.57) | |
| 7 | 7 (10.45) | 3 (12.50) | 1 (4.76) | 1 (12.50) | 2 (14.29) | |
| | | | | | | |
| Digital & Data – Extracurricular | | | | | | |
| 1 | 1 (1.49) | 0 (0.00) | 0 (0.00) | 1 (12.50) | 0 (0.00) | 0.0176 |
| 2 | 1 (1.49) | 0 (0.00) | 1 (4.76) | 0 (0.00) | 0 (0.00) | |
| 3 | 6 (8.96) | 0 (0.00) | 2 (9.52) | 0 (0.00) | 4 (28.57) | |
| 4 | 11 (16.42) | 2 (8.33) | 6 (28.57) | 1 (12.50) | 2 (14.29) | |
| 5 | 14 (20.90) | 3 (12.50) | 4 (19.05) | 2 (25.00) | 5 (35.71) | |
| 6 | 20 (29.85) | 12 (50.00) | 5 (23.81) | 1 (12.50) | 2 (14.29) | |
| 7 | 14 (20.90) | 7 (29.17) | 3 (14.29) | 3 (37.50) | 1 (7.14) | |

2.13. CONCLUSION OF FINDINGS: EFFECTIVENESS OF ENTREPRENEURSHIP EDUCATION (EE) METHODS

One of the research's objectives was to assess the extent to which students' entrepreneurship skills were developed through various EE methods at the participating universities. The findings highlight that extracurricular activities were generally preferred and viewed as the most effective for developing skills such as communication, Opportunity Recognition, and decision-making.

However, notable differences emerged between the two institutions. Students from MUBS expressed a stronger preference for extracurricular methods across most skill areas,

particularly in later years of study, indicating that these methods may be more effective or better received within their educational context. In contrast, BCU students demonstrated a moderate to high preference for extracurricular methods but appeared to value curricular and co-curricular approaches slightly more than their MUBS counterparts.

But overall, the results suggest a clear preference for practical, experiential learning methods, with students increasingly valuing these approaches as they advance in their academic journeys.

3. LECTURERS' SURVEY

This section presents findings gathered from BCU and MUBS' lecturers, offering their perspectives on student entrepreneurship at their respective campuses. It is important to note that the number of participants in the lecturers' survey was not large enough to support a robust quantitative analysis. Consequently, the presentation and analysis of the data is primarily descriptive, focusing on the demographic characteristics and key insights derived from the survey. More comprehensive and nuanced insights from lecturers are explored in the main study, which is purely qualitative.

3.1. OVERALL DATA SPREAD AND KEY DEMOGRAPHICS

The majority of participating lecturers were from BCU (Table 110). Due to this dominance, the researcher was mindful that the results regarding EE methods and approaches implemented at BCU might have a more prominent influence on these findings, hence the subsequent focus groups.

Table 110: General Participant Information for The Lecturers' Survey

| VARIABLE | OVERALL | BCU | MUBS | PVALUE |
|----------------------------|------------|------------|-----------|--------|
| Age group (years) | | | | 0.2219 |
| 18 - 24 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 25 - 34 | 9 (36.00) | 4 (25.00) | 5 (55.56) | |
| 35 - 44 | 9 (36.00) | 5 (31.25) | 4 (44.44) | |
| 45 - 54 | 5 (20.00) | 5 (31.25) | 0 (0.00) | |
| 65 - 74 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| Gender | | | | 0.9732 |
| Female | 11 (44.00) | 7 (43.75) | 4 (44.44) | |
| Male | 14 (56.00) | 9 (56.25) | 5 (55.56) | |
| | | | | |
| Year of teaching | | | | 0.1517 |
| 1st Year | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 1st Year,2nd Year | 3 (12.00) | 3 (18.75) | 0 (0.00) | |
| 1st Year,2nd Year,3rd Year | 4 (16.00) | 4 (25.00) | 0 (0.00) | |
| 2nd Year | 1 (4.00) | 0 (0.00) | 1 (11.11) | |
| 2nd Year,3rd Year | 1 (4.00) | 0 (0.00) | 1 (11.11) | |
| 3rd Year | 13 (52.00) | 7 (43.75) | 6 (66.67) | |
| | | | | |
| Mode of teaching | | | | 0.2688 |
| Fulltime | 23 (92.00) | 14 (87.50) | 9 (100.0) | |
| Part time | 2 (8.00) | 2 (12.50) | (0.00) | |

a) Age Group Distribution

Overall: The majority of participants were aged between 25-34 years (36%) and 35-44 years (36%), followed by those in the 45-54 years category (20%).

BCU: Age distribution was more diverse, with 6.25% aged 18-24, 25% aged 25-34, 31.25% aged 35-44, 31.25% aged 45-54, and 6.25% aged 65-74.

MUBS: The lecturers were predominantly in the 25-34 years (55.56%) and 35-44 years (44.44%) categories, with no participants in the other age ranges.

Implications: The age distribution indicates a younger teaching staff at MUBS compared to a more varied age range at BCU.

b) Gender Distribution:

Participants' gender distribution was fairly balanced, with 44% female and 56% male participants. This balance was consistent at both institutions, where, at BCU, 43.75% were female and 56.25% male, whereas at MUBS, 44.44% were female and 55.56% male (Table 110). This balanced gender representation at both institutions suggests, potentially, diverse perspectives in teaching approaches and classroom dynamics.

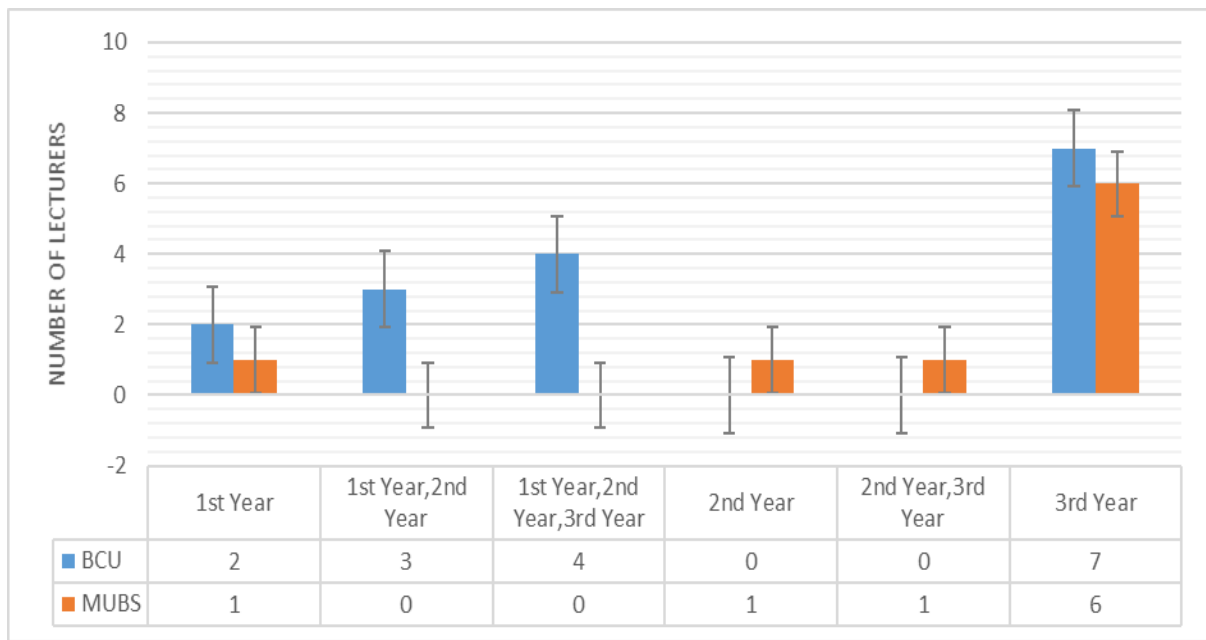
Note: *No participants in the study identified themselves with other gender types apart from male or female.*

c) Year of Teaching

The majority of participating lecturers taught 3rd year students (52%), followed by those teaching all three years (16%), 1st and 2nd years (12%), 1st year only (12%), 2nd and 3rd years (4%), and 2nd year only (4%). The notable differences are that at BCU, 43.75% taught 3rd year students, compared to MUBS' 66% (Table 110 & Table 111).

Unlike BCU which had lecturers teaching across a range of academic years, MUBS had fewer lecturers teaching across multiple academic years, with most of them focused on the 3rd year (Table 111).

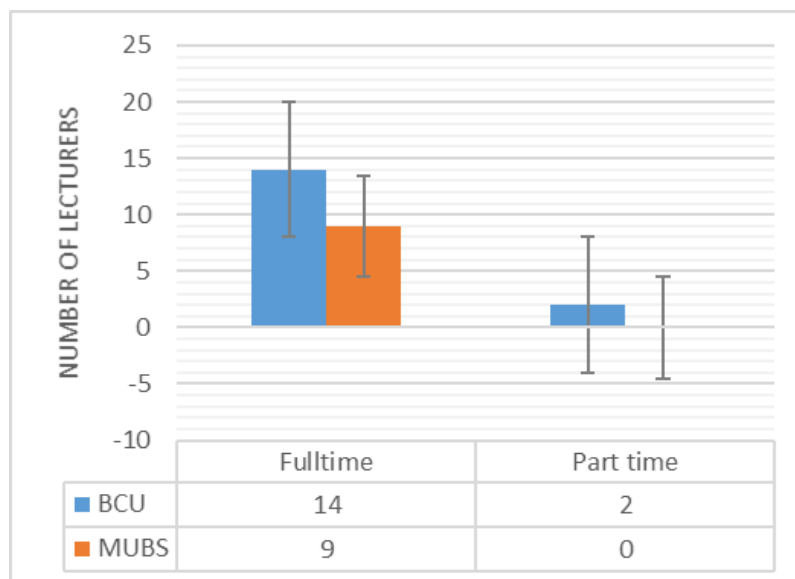
Table 111: Distribution of lecturers by academic years taught



d) Mode of Teaching

Overall: The majority of lecturers were full-time (92%), with a small fraction part-time (8%). Notably, all participants at MUBS were full time, while at BCU 87.5% were full-time and 12.5% part-time (Table 112, Table 110 and Table 112).

Table 112: Participant Lecturer's Mode of Teaching



3.2. LECTURERS' RATINGS OF STUDENTS' ENTREPRENEURSHIP SKILLS

The second objective of this research was to assess the extent to which students at the participating universities were perceived to possess entrepreneurship skills. While the previous section provided insights from the students' perspectives, this section presents the findings from lecturer surveys. It offers insights of lecturers from BCU and MUBS on the level of entrepreneurship skills demonstrated by their students.

Lecturers at BCU and MUBS were asked to rate their students on the extent to which they thought they possessed various entrepreneurship skills. The ratings were on a scale of 1 to 7, with 7 being the highest.

While lecturers' evaluations of their students' entrepreneurship skills were generally high (Table 113), students at both universities consistently rated themselves even higher across key competencies (Table 113). This discrepancy was particularly pronounced in areas such as decision-making (P-Value = 0.0132), communication (P-Value = 0.0074), and digital skills (P-Value = 0.0402).

Table 113: Lecturers' Ratings of Students' Entrepreneurship Skills

| Variable | Overall | BCU | MUBS | p- value |
|---------------------------|------------|-----------|-----------|----------|
| Creativity and innovation | | | | 0.3202 |
| 3 | 4 (16.00) | 2 (12.50) | 2 (22.22) | |
| 4 | 12 (48.00) | 9 (56.25) | 3 (33.33) | |
| 5 | 7 (28.00) | 5 (31.25) | 2 (22.22) | |
| 6 | 1 (4.00) | 0 (0.00) | 1 (11.11) | |
| 7 | 1 (4.00) | 0 (0.00) | 1 (11.11) | |
| Opportunity Recognition | | | | 0.7177 |
| 2 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 3 | 8 (32.00) | 6 (37.50) | 2 (22.22) | |
| 4 | 7 (28.00) | 5 (31.25) | 2 (22.22) | |
| 5 | 4 (16.00) | 2 (12.50) | 2 (22.22) | |
| 6 | 2 (8.00) | 1 (6.25) | 1 (11.11) | |
| 7 | 1 (4.00) | 0 (0.00) | 1 (11.11) | |
| Decision Making | | | | 0.0238 |
| 1 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 2 | 6 (24.00) | 5 (31.25) | 1 (11.11) | |

| | | | | |
|-------------------------|-----------|-----------|-----------|--------|
| 3 | 6 (24.00) | 1 (6.25) | 5 (55.56) | |
| 4 | 6 (24.00) | 6 (37.50) | 0 (0.00) | |
| 5 | 6 (24.00) | 3 (18.75) | 3 (33.33) | |
| | | | | |
| Implementation of Ideas | | | | 0.3016 |
| 1 | 2 (8.00) | 2 (12.50) | 0 (0.00) | |
| 2 | 3 (12.00) | 1 (6.25) | 2 (22.22) | |
| 3 | 6 (24.00) | 3 (18.75) | 3 (33.33) | |
| 4 | 4 (16.00) | 2 (12.50) | 2 (22.22) | |
| 5 | 5 (20.00) | 5 (31.25) | 0 (0.00) | |
| 6 | 5 (20.00) | 3 (18.75) | 2 (22.22) | |
| | | | | |
| Action & Reflection | | | | 0.5814 |
| 1 | 2 (8.00) | 1 (6.25) | 1 (11.11) | |
| 2 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 3 | 9 (36.00) | 5 (31.25) | 4 (44.44) | |
| 4 | 5 (20.00) | 5 (31.25) | 0 (0.00) | |
| 5 | 4 (16.00) | 2 (12.50) | 2 (22.22) | |
| 6 | 2 (8.00) | 1 (6.25) | 1 (11.11) | |
| | | | | |
| Communication | | | | 0.7536 |
| 1 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 2 | 2 (8.00) | 2 (12.50) | 0 (0.00) | |
| 3 | 2 (8.00) | 1 (6.25) | 1 (11.11) | |
| 4 | 8 (32.00) | 5 (31.25) | 3 (33.33) | |
| 5 | 7 (28.00) | 5 (31.25) | 2 (22.22) | |
| 6 | 1 (4.00) | 0 (0.00) | 1 (11.11) | |
| 7 | 2 (8.00) | 1 (6.25) | 1 (11.11) | |
| | | | | |
| Digital & Data | | | | 0.6737 |
| 1 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 2 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 3 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 4 | 8 (32.00) | 4 (25.00) | 4 (44.44) | |
| 5 | 6 (24.00) | 5 (31.25) | 1 (11.11) | |
| 6 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 7 | 1 (4.00) | 0 (0.00) | 1 (11.11) | |
| | | | | |

Table 114: Mean and Median - Lecturers' Ratings of Students' Entrepreneurship Skills

| Mean & Median | | | | |
|---------------|-------------------|-------------------|-----------------|--------|
| Mean (SD) | n= 25; 27.1 (7.3) | n= 16; 26.4 (6.8) | n=9; 28.2 (8.3) | 0.5665 |
| Median (IQR) | 28.0 (23-32) | 28.5 (23-32) | 24.0 (24-35) | 0.7333 |

3.3. KEY OBSERVATIONS

The overall mean score for entrepreneurship skills rated by lecturers was 27.1, with BCU lecturers scoring students at 26.4 and MUBS lecturers at 28.2 (Table 114). In contrast, the student self-assessments showed a significantly higher overall mean score of 35.5, with BCU students rating themselves at 34.7 and MUBS students at 37.0. The statistical significance of these differences is further highlighted by p-values of 0.0176 for the mean and 0.0055 for the median, both indicating that students rated their entrepreneurial skills substantially higher than their lecturers did.

These findings not only underscore potential perception gaps between students and educators but also suggest important implications for the design and delivery of EE programmes.

3.3.1. LECTURERS' PREFERENCE, AND USAGE OF EDUCATION METHODS

One of the research objectives was to assess the extent to which students' entrepreneurship skills were developed through entrepreneurship education at the participating universities. This section presents the survey findings from BCU and MUBS lecturers, focusing on the various EE methods and dynamics employed at their institutions and how these approaches have influenced the development of students' entrepreneurship skills at their institutions.

Lecturers were asked to rate the extent to which they believed each teaching method was effective in equipping students with various entrepreneurship skills on a scale from 1 (least effective) to 7 (most effective). The analysis includes the mean and median ratings for the overall effectiveness of curricular versus extracurricular methods and examines differences between the two universities.

Below is a summary of the findings.

Note: *The P Value should be interpreted in the context of the fact that participants were not sufficient enough to run a robust data analysis.*

a) Usage of Curricular Methods (Table 115)

The overall ratings ranged mainly between 4 and 7, with the highest concentration at 6 and 7. BCU ratings were slightly higher at 5 and 6, while MUBS had more ratings at 7 compared to BCU, indicating a stronger preference for curricular methods (Table 115). However, the p-value of 0.3893 indicates no statistically significant difference between the two institutions in the perceived effectiveness of curricular methods.

Table 115: Lecturer's Preference for Curricular Methods

| Variable | Overall | BCU | MUBS | p-value |
|----------|-----------|-----------|-----------|---------|
| 3 | 3 (12.00) | 2 (12.50) | 1 (11.11) | 0.3893 |
| 4 | 4 (16.00) | 2 (12.50) | 2 (22.22) | |
| 5 | 4 (16.00) | 4 (25.00) | 0 (0.00) | |
| 6 | 7 (28.00) | 5 (31.25) | 2 (22.22) | |
| 7 | 7 (28.00) | 3 (18.75) | 4 (44.44) | |

b) Usage of Extracurricular Methods (Table 116)

Overall, lecturers rated extra-curricular methods lowly, with notable peaks at 1, 2, and 3, especially at BCU. MUBS' ratings spread more evenly across the scale, but also with notable peaks at 1, 4 and 7. This suggested that there was no strong preference for extra-curricular methods by lecturers. However, a p-value of 0.2466 indicates that there was no statistical significant difference between the institutions in the perceived effectiveness of extracurricular methods.

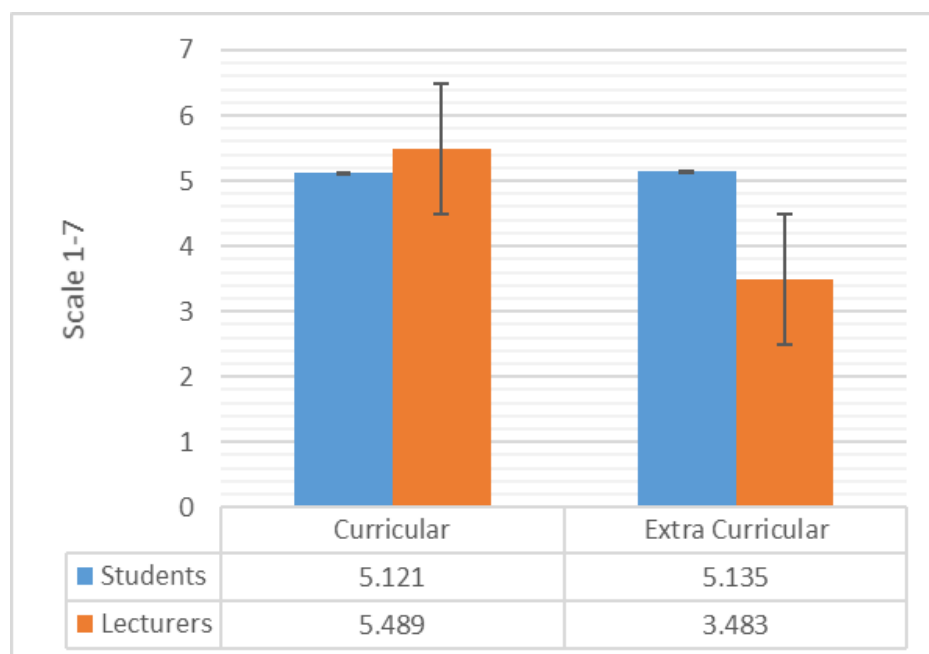
Table 116: Lecturer's Preference for Extra-Curricular Methods

| Variable | Overall | BCU | MUBS | p-value |
|----------|-----------|-----------|-----------|---------|
| 1 | 7 (28.00) | 5 (31.25) | 2 (22.22) | 0.2466 |
| 2 | 4 (16.00) | 3 (18.75) | 1 (11.11) | |
| 3 | 4 (16.00) | 3 (18.75) | 1 (11.11) | |
| 4 | 2 (8.00) | 0 (0.00) | 2 (22.22) | |
| 5 | 2 (8.00) | 1 (6.25) | 1 (11.11) | |
| 6 | 2 (8.00) | 2 (12.50) | 0 (0.00) | |
| 7 | 4 (16.00) | 2 (12.50) | 0 (22.22) | |

c) Notable differences between lecturer and student preferences in the effectiveness of EE methods (Table 117)

Students tended to rate both curricular and extracurricular methods highly, with significant differences in certain areas such as Opportunity Recognition and decision making. However, lecturers generally favoured curricular methods (Table 115) over extra-curricular methods (Table 116), suggesting a mismatch regarding their preferred teaching methods (Table 117). The findings mirror earlier observations about the mismatch between students and lecturers in the possession of entrepreneurship skills by the former.

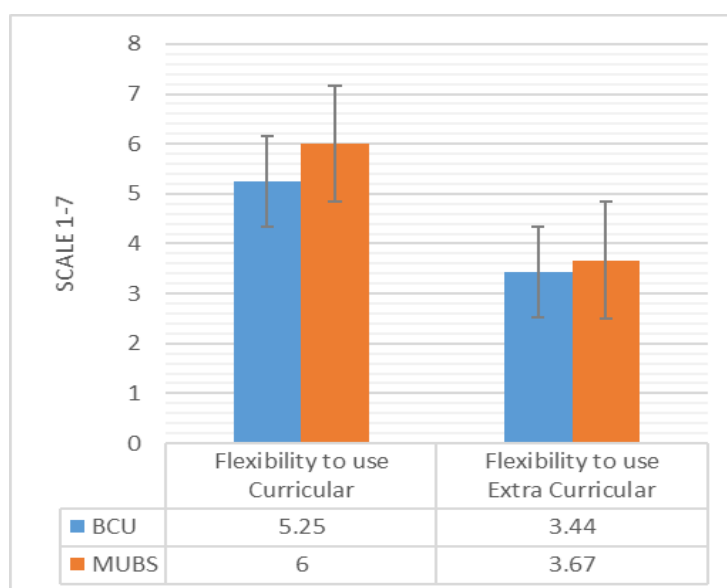
Table 117: Lecturers V Students (combined universities): Mismatch of preferences in teaching vs learning methods



Lecturer's Flexibility to Use Teaching Methods

On average, lecturers at MUBS reported higher levels of flexibility in employing both types of methods compared to their BCU counterparts. This indicates that MUBS lecturers felt more empowered to adapt and integrate various teaching approaches into their EE practices. While BCU lecturers also exhibited some degree of flexibility, they reported a lower overall level of flexibility, especially concerning extra-curricular methods (Table 118).

Table 118: Existing flexibility to use curricular of extracurricular teaching methods.



Flexibility in the use of Curricular Methods

Despite the strong influence of teaching guidelines at both institutions (Table 121), a notable number of lecturers reported a moderate to high flexibility in the use of curricular methods (Table 119), especially at MUBS. This means that while teaching guidelines exist, both HEIs seem less stringent in how the lecturers deploy curricular methods.

Table 119: Lecturer's Flexibility to Use Curricular Methods

| Variable | Overall | BCU | MUBS | p-value |
|----------|-----------|-----------|-----------|---------|
| 3 | 2 (8.00) | 1 (6.25) | 1 (11.11) | 0.3938 |
| 4 | 4 (16.00) | 4 (25.00) | 0 (0.00) | |
| 5 | 7 (28.00) | 5 (31.25) | 2 (22.22) | |
| 6 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 7 | 9 (36.00) | 4 (25.00) | 5 (55.56) | |

Flexibility in the use of Extra-Curricular Methods

Flexibility ratings for extra-curricular methods were more dispersed, with majority of lecturers rating the flexibility to use extra curricula methods from low to moderate. 25% and 22.22% of the lecturers at BCU and MUBS respectively, rated the flexibility at the lowest level of 1, suggesting a fair amount of rigidity at both institutions (

Table 120). Nonetheless, a p-value of 0.7705 suggest that there was no statistically significant difference between the lecturers' levels of flexibility in using extra-curricular methods at BCU and MUBS.

Table 120: Lecturer's Flexibility to Use Extra-Curricular Methods

| Variable | Overall | BCU | MUBS | p-value |
|----------|-----------|-----------|-----------|---------|
| 1 | 6 (24.00) | 4 (25.00) | 2 (22.22) | 0.7705 |
| 2 | 2 (8.00) | 1 (6.25) | 1 (11.11) | |
| 3 | 4 (16.00) | 2 (12.50) | 2 (22.22) | |
| 4 | 4 (16.00) | 3 (18.75) | 1 (11.11) | |
| 5 | 4 (16.00) | 3 (18.75) | 1 (11.11) | |
| 6 | 2 (8.00) | 2 (12.50) | 0 (0.00) | |
| 7 | 3 (12.00) | 1 (6.25) | 2 (22.22) | |

Choice vs University Policy Guidelines

i. **On Curricular Methods:** The results show a higher influence of teaching policy guidelines on curricular methods, with a significant proportion of lecturers at both institutions rating it highly (Table 121). Notably, 66 % of the lecturers at MUBS rated the influence as 7, while 25%, 37.5% and 25% of lecturers at BCU rated it at 5,6 and 7 respectively. This indicates that teaching policy guidelines play an equally substantial role in shaping curricular methods at both institutions (p-value 0.1932).

Table 121: Influence of teaching policy guidelines on Curricular Methods

| Variable | Overall | BCU | MUBS | p-value |
|----------|------------|-----------|-----------|---------|
| 2 | 1 (4.00) | 0 (0.00) | 1 (11.11) | 0.1932 |
| 3 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 4 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 5 | 5 (20.00) | 4 (25.00) | 1 (11.11) | |
| 6 | 7 (28.00) | 6 (37.50) | 1 (11.11) | |
| 7 | 10 (40.00) | 4 (25.00) | 6 (66.67) | |

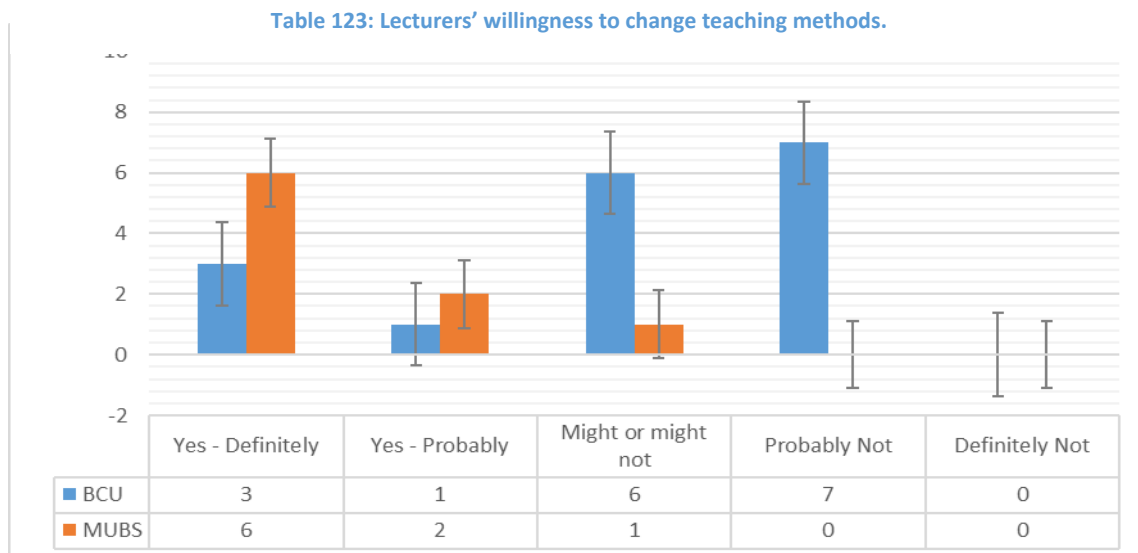
ii. **On Extra Curricular Methods:** Lecturers rated the influence of teaching policy guidelines on extracurricular methods lowly with ratings ranging from 1 to 4 (Table 122).

Table 122: Influence of teaching policy guidelines on Extra-Curricular Methods

| Variable | Overall | BCU | MUBS | p-value |
|----------|-----------|-----------|-----------|---------|
| 1 | 4 (16.00) | 2 (12.50) | 2 (22.22) | 0.7772 |
| 2 | 6 (24.00) | 4 (25.00) | 2 (22.22) | |
| 3 | 6 (24.00) | 3 (18.75) | 3 (33.33) | |
| 4 | 6 (24.00) | 4 (25.00) | 2 (22.22) | |
| 5 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 6 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 7 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |

The above results suggest that extracurricular methods are less constrained by policy guidelines at both institutions (p-value 0.7772). Yet, notwithstanding this apparent flexibility, lecturers at both institutions still preferred to use curricular teaching methods

(Table 115) over extra-curricular teaching methods (Table 116), and were less willing to change these methods, even when offered the choice to do so (Table 123 and Table 124).



Enhancing EE: Suggestions By Lecturers

Notwithstanding their reluctance to change the teaching methods, lecturers at both institutions offered insights into how they might make EE more effective (Table 124). In summary, BCU lecturers highlight the importance of providing more practical activities and opportunities for students to apply theoretical knowledge practically. They also emphasise the need for communication, motivation, and problem-based learning approaches to develop critical thinking skills. The idea of guest lectures and business simulation programmes is also suggested to connect students with the local business community and expose them to real-world entrepreneurship situations. This is something that is already happening in some modules at BCU. Some of BCU lecturers also suggest embedding entrepreneurship across all modules to cultivate an overall entrepreneurial culture among students.

MUBS lecturers also stress the significance of practical and hands-on experiences and market-focused approaches. They propose involving students in starting businesses (which is already happening at the university) and integrating industry exposure to assess students' adaptation to market practices.

Table 124: Lecturers' suggestions of additional teaching methods

| Would you change current teaching methods | University | Gender | What methods would you use to equip students with entrepreneurship skills |
|---|------------|--------|--|
| Definitely yes | BCU | Female | More practical activities that would help the students apply theoretical understanding of a specific business. we learn by understanding a concept and by applying a concept into practical context |
| Definitely yes | BCU | Male | A greater emphasis on a problem - based learning approach in order to develop critical thinking skills. Exposure to real - world entrepreneurship situations |
| Definitely yes | BCU | Male | out of campus |
| Definitely yes | MUBS | Female | I ask my students to start a business. They run it and come to class to share experiences. They explain where they failed, why and how they can do better. |
| Definitely yes | MUBS | Female | Practical and hands on training |
| Definitely yes | MUBS | Male | Co-curricular and extra-curricular methods |
| Definitely yes | MUBS | Male | Co-curricular, because it avails a student an analogical way of thinking and looking at issues in a different perspective |
| Definitely yes | MUBS | Male | Extracurricular |
| Definitely yes | MUBS | Male | Market focused method, where student are sent to work in the industry and assessed based on their adaption to the market practices using the class content. Because that would give the opportunity to students to express their entrepreneurial abilities and potential |
| Might or might not | BCU | Female | n/a |
| Might or might not | BCU | Female | NA |
| Might or might not | BCU | Male | I would use more guest lectures for students which develop contacts in the local business community |
| Might or might not | BCU | Male | More case study work, if more time was available beyond 'must do' content, needed to give a reasonable chance of passing assignments |
| Might or might not | BCU | Male | NA |
| Might or might not | BCU | Male | Same as |
| Might or might not | MUBS | Male | More ICT skills |

| | | | |
|--------------|------|--------|---|
| Probably not | BCU | Female | More practice led learning |
| Probably yes | BCU | Female | More interactive |
| Probably yes | BCU | Female | Practical experience - e.g., Business simulation programmes |
| Probably yes | BCU | Female | Practice-based |
| Probably yes | BCU | Male | communication and motivation |
| Probably yes | BCU | Male | Embedding entrepreneurship across all topics and modules |
| Probably yes | BCU | Male | to start up a business while studying |
| Probably yes | MUBS | Female | Have more practical sessions to ensure an all-round student |
| Probably yes | MUBS | Female | Starting a business in year one and they run it for three years |

3.3.2. CONCLUSION OF FINDINGS REGARDING LECTURERS' PERSPECTIVES ON THE EFFECTIVENESS OF ENTREPRENEURSHIP EDUCATION METHODS

One of the research objectives was to assess the extent to which students' entrepreneurship skills were developed through entrepreneurship education at the participating universities. From the lecturers' perspective, both curricular and extracurricular methods were acknowledged as valuable, although lecturers generally favoured curricular methods over extracurricular ones. This contrasts with student preferences, where extracurricular activities were often rated higher in developing entrepreneurship skills. This difference highlights a potential disconnect between students' and lecturers' preferred teaching methods in entrepreneurship education.

Specifically, lecturers at MUBS reported greater flexibility in integrating both curricular and extracurricular approaches into their teaching, compared to their counterparts at BCU. MUBS lecturers felt more empowered to adapt their EE practices to meet the needs of their students, while BCU lecturers expressed less flexibility, particularly in utilising extracurricular methods.

Additionally, the findings show that teaching policy guidelines had a stronger influence on curricular methods, with most lecturers from both institutions rating this influence highly. In contrast, policy constraints were reported to be less restrictive on extracurricular methods, as lecturers rated their influence lower. Despite this greater freedom in extracurricular approaches, lecturers at both universities still expressed a clear preference for curricular teaching methods and were less inclined to shift toward extracurricular methods, even when given the flexibility to do so.

These findings highlight a persistent preference among lecturers for more traditional, structured EE methods, which may not fully align with students' preferences for practical and hands-on learning.

3.4. LECTURERS' ASSESMENT OF ENTREPRENEURSHIP ECOSYSTEM EFFECTS ON EE AND SKILLS

The final objective of this research was to examine how the entrepreneurship ecosystems at the participating universities influenced the selection and effectiveness of EE methods. This section presents survey findings from lecturers at BCU and MUBS and highlights how the unique characteristics of their respective ecosystems shaped their choices in EE approaches and impacted the overall development of entrepreneurship skills among students.

This research relied on Isenberg (2011)'s six key domains of the entrepreneurship ecosystem namely Culture, Markets, Human Capital, Finance, Supports, and Policy. These, and the justification of Isenberg's model are discussed at greater length in the introduction and literature review chapters. Lecturers were asked about their perceived effect of each of the above entrepreneurship ecosystem domains on students' entrepreneurship skills and EE. Lecturers rated the influence of ecosystem factors on these skills on a scale of 1 to 7, with 7 being the most impactful. Below is a summary of the findings.

Note: *The results should be interpreted in the context of the fact that participants were not many enough to run a robust data analysis. More insights from lecturers are explored in the qualitative phase of the study.*

a) Effect of Ecosystem Factors on Entrepreneurship Skills

Lecturers at MUBS consistently rated the impact of ecosystem factors on students' entrepreneurial skills higher than their BCU counterparts (Table 125). This suggests that MUBS lecturers may perceive a stronger connection between these ecosystem elements and the development of entrepreneurial skills in their students.

Table 125: Lecturers' average ratings on the effect of various ecosystem factors on students' entrepreneurial skills

| HEI | Culture | Human Capital | Policy | Finance | Markets | Supports |
|------|---------|---------------|--------|---------|---------|----------|
| BCU | 5.06 | 5.50 | 3.63 | 3.94 | 4.25 | 4.25 |
| MUBS | 5.33 | 6.11 | 4.89 | 4.67 | 5.22 | 5.00 |

The most obvious differences are seen in the ratings for human capital, policy, finance, and markets, where MUBS shows a greater emphasis on these factors compared to BCU. This is visually highted in

Figure 58, and Table 126 below.

Figure 58: Lecturers' ratings on the effect of various ecosystem factors on students' entrepreneurial skills.

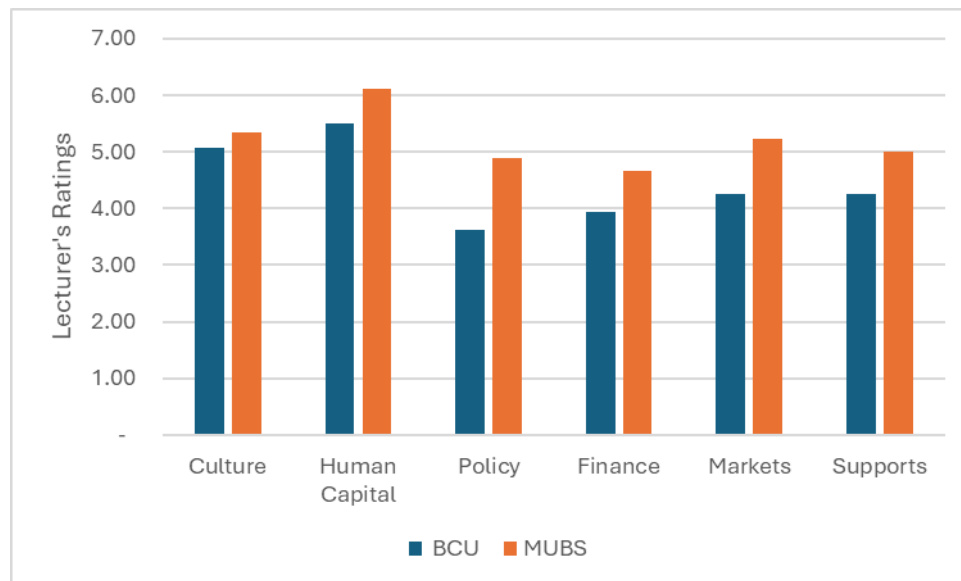


Table 126: Lecturers' ratings on the effect of various ecosystem factors on students' entrepreneurial skills (Full Results).

| Variable | Overall | BCU | MUBS | p-value |
|-----------------------------------|-----------|-----------|-----------|---------|
| | | | | |
| Effect Of Culture on Skills | | | | 0.7869 |
| 1 | 2 (8.00) | 1 (6.25) | 1 (11.11) | |
| 2 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 4 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 5 | 6 (24.00) | 4 (25.00) | 2 (22.22) | |
| 6 | 8 (32.00) | 6 (37.50) | 2 (22.22) | |
| 7 | 5 (20.00) | 2 (12.50) | 3 (33.33) | |
| | | | | |
| Effect Of Human Capital On Skills | | | | 0.5483 |
| 3 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 4 | 2 (8.00) | 2 (12.50) | 0 (0.00) | |
| 5 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 6 | 8 (32.00) | 6 (37.50) | 2 (22.22) | |
| 7 | 9 (36.00) | 4 (25.00) | 5 (55.56) | |
| | | | | |
| Effect Policy On Skills | | | | 0.0511 |
| 2 | 5 (20.00) | 5 (31.25) | 0 (0.00) | |
| 3 | 4 (16.00) | 4 (25.00) | 0 (0.00) | |
| 4 | 9 (36.00) | 4 (25.00) | 5 (55.56) | |
| 5 | 2 (8.00) | 0 (0.00) | 2 (22.22) | |
| 6 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 7 | 4 (16.00) | 2 (12.50) | 2 (22.22) | |

| | | | | |
|--|--------------------|--------------------|-------------------|--------|
| | | | | |
| Effect Finance On Skills | | | | 0.1610 |
| 1 | 1 (4.00) | 0 (0.00) | 1 (11.11) | |
| 2 | 2 (8.00) | 2 (12.50) | 0 (0.00) | |
| 3 | 5 (20.00) | 4 (25.00) | 1 (11.11) | |
| 4 | 6 (24.00) | 4 (25.00) | 2 (22.22) | |
| 5 | 6 (24.00) | 5 (31.25) | 1 (11.11) | |
| 6 | 3 (12.00) | 1 (6.25) | 2 (22.22) | |
| 7 | 2 (8.00) | 0 (0.00) | 2 (22.22) | |
| | | | | |
| Effect Markets On Skills | | | | 0.2624 |
| 3 | 4 (16.00) | 4 (25.00) | 0 (0.00) | |
| 4 | 10 (40.00) | 7 (43.75) | 3 (33.33) | |
| 5 | 5 (20.00) | 3 (18.75) | 2 (22.22) | |
| 6 | 4 (16.00) | 1 (6.25) | 3 (33.33) | |
| 7 | 2 (8.00) | 1 (6.25) | 1 (11.11) | |
| | | | | |
| Effect Support on Skills | | | | 0.1912 |
| 1 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 2 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 3 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 4 | 5 (20.00) | 2 (12.50) | 3 (33.33) | |
| 5 | 9 (36.00) | 8 (50.00) | 1 (11.11) | |
| 6 | 4 (16.00) | 2 (12.50) | 2 (22.22) | |
| 7 | 2 (8.00) | 0 (0.00) | 2 (22.22) | |
| | | | | |
| Overall Ecosystem Effects on Skills | | | | |
| Mean (SD) | n= 25 ; 28.3 (5.2) | n= 16 ; 26.6 (4.9) | n= 9 ; 31.3 (4.4) | 0.0256 |
| Median (IQR) | 29.0 (25-31) | 26.5 (25-30) | 31.0 (30-35) | 0.0286 |

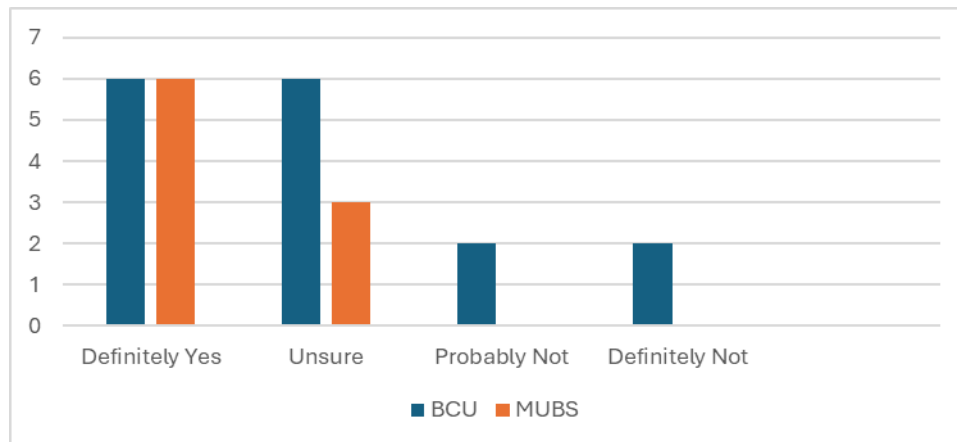
b) Lecturers' views regarding students' awareness of the ecosystem factors

The data presented (Table 127) reflects BCU and MUBS' lecturers' perceptions regarding their students' awareness of the entrepreneurship ecosystem factors.

- **Definitely Yes:** Both BCU and MUBS had an equal number of lecturers (6) who believed their students were definitely aware of the entrepreneurship ecosystem.
- **Unsure:** A higher number of BCU lecturers (6) were uncertain about their students' awareness compared to MUBS, where only 3 lecturers were unsure.
- **Probably Not:** At BCU, 2 lecturers believed their students were probably not aware of the entrepreneurship ecosystem factors, while no lecturers at MUBS held this view.

- **Definitely Not:** Similarly, 2 lecturers at BCU thought that their students were definitely not aware of the entrepreneurship ecosystem, whereas no lecturers at MUBS shared this belief.

Table 127: Confirmation by Lecturers on whether they thought students were aware of environmental factors



While a consistent number of lecturers at both institutions affirmed their students' awareness of ecosystem factors, there was more uncertainty and scepticism among BCU lecturers compared to those at MUBS. This indicates a potential disparity in perceived student engagement or understanding of the entrepreneurship ecosystem factors between the two institutions.

c) Effects Of Entrepreneurship Ecosystems on EE Practices: Lecturers' Perceptions

Table 128 presents BCU and MUBS' lecturers' ratings for the effect of various ecosystem elements on entrepreneurship education, using a rating scale of 1-7, with the latter being the highest. With the exception of the Ecosystem domain of Culture, MUBS lecturers consistently rated the influence of all the other ecosystem factors on entrepreneurship education higher than their counterparts at BCU.

Table 128: Lecturers' views on the effect of various elements of the ecosystem on entrepreneurship education

| HEI | Culture on Education | Human Capital on Education | Policy on Education | Finance on Education | Markets on Education | Supports on Education |
|------|----------------------|----------------------------|---------------------|----------------------|----------------------|-----------------------|
| BCU | 4.50 | 5.31 | 3.88 | 3.06 | 3.50 | 4.06 |
| MUBS | 4.33 | 5.89 | 5.00 | 4.44 | 4.89 | 4.89 |

This trend reflects a stronger perception among MUBS lecturers of the importance of these factors in shaping effective entrepreneurship education. The most significant differences are observed in the ratings for policy, finance, and market influence, where MUBS shows a notably higher emphasis (Figure 59). The other notable deviation from this trend is that BCU lecturers rated the impact of culture on education slightly higher (4.50) than their MUBS counterparts (4.33) (Table 128).

Figure 59: Lecturers' views on the effect of various elements of the ecosystem on entrepreneurship education

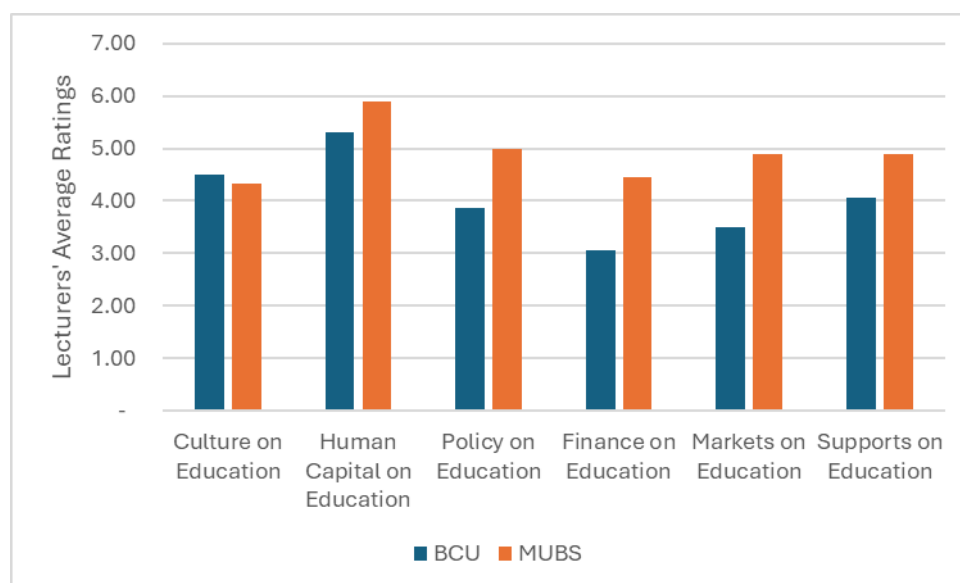


Table 129: Lecturers' views on the effect of various elements of the ecosystem on entrepreneurship education

| Variable | Overall | BCU | MUBS | p-value |
|---|-----------|-----------|-----------|---------|
| Effect Culture on Education Practices | | | | 0.2310 |
| 1 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 3 | 4 (16.00) | 1 (6.25) | 3 (33.33) | |
| 4 | 7 (28.00) | 5 (31.25) | 2 (22.22) | |
| 5 | 9 (36.00) | 6 (37.50) | 3 (33.33) | |
| 6 | 3 (12.00) | 3 (18.75) | 0 (0.00) | |
| 7 | 1 (4.00) | 0 (0.00) | 1 (11.11) | |
| Effect Human Capital on Education Practices | | | | 0.5324 |
| 3 | 2 (8.00) | 1 (6.25) | 1 (11.11) | |
| 4 | 4 (16.00) | 4 (25.00) | 0 (0.00) | |
| 5 | 6 (24.00) | 4 (25.00) | 2 (22.22) | |
| 6 | 5 (20.00) | 3 (18.75) | 2 (22.22) | |
| 7 | 8 (32.00) | 4 (25.00) | 4 (44.44) | |
| Effect Of Policy on Education Practices | | | | 0.4248 |
| 1 | 2 (8.00) | 2 (12.50) | 0 (0.00) | |

| | | | | |
|---|-------------------|-------------------|------------------|--------|
| 2 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 3 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 4 | 4 (16.00) | 4 (25.00) | 0 (0.00) | |
| 5 | 7 (28.00) | 3 (18.75) | 4 (44.44) | |
| 6 | 3 (12.00) | 2 (12.50) | 1 (11.11) | |
| 7 | 3 (12.00) | 1 (6.25) | 2 (22.22) | |
| Effect Finance on Education Practices | | | | 0.1329 |
| 0 | 1 (4.00) | 1 (6.25) | 0 (0.00) | |
| 1 | 3 (12.00) | 3 (18.75) | 0 (0.00) | |
| 2 | 2 (8.00) | 2 (12.50) | 0 (0.00) | |
| 3 | 4 (16.00) | 1 (6.25) | 3 (33.33) | |
| 4 | 9 (36.00) | 6 (37.50) | 3 (33.33) | |
| 5 | 4 (16.00) | 3 (18.75) | 1 (11.11) | |
| 7 | 2 (8.00) | 0 (0.00) | 2 (22.22) | |
| Effect Market on Education Practices | | | | 0.2226 |
| 1 | 3 (12.00) | 3 (18.75) | 0 (0.00) | |
| 2 | 3 (12.00) | 3 (18.75) | 0 (0.00) | |
| 3 | 3 (12.00) | 1 (6.25) | 2 (22.22) | |
| 4 | 5 (20.00) | 3 (18.75) | 2 (22.22) | |
| 5 | 5 (20.00) | 4 (25.00) | 1 (11.11) | |
| 6 | 5 (20.00) | 2 (12.50) | 3 (33.33) | |
| 7 | 1 (4.00) | 0 (0.00) | 1 (11.11) | |
| Effect of Support on Education Practices | | | | 0.0873 |
| 2 | 3 (12.00) | 3 (18.75) | 0 (0.00) | |
| 3 | 4 (16.00) | 2 (12.50) | 2 (22.22) | |
| 4 | 6 (24.00) | 5 (31.25) | 1 (11.11) | |
| 5 | 7 (28.00) | 3 (18.75) | 4 (44.44) | |
| 6 | 3 (12.00) | 3 (18.75) | 0 (0.00) | |
| 7 | 2 (8.00) | 0 (0.00) | 2 (22.22) | |
| Overall: Ecosystem effect of Support on Education Practices | | | | |
| Mean (SD) | n= 25; 26.2 (6.0) | n= 16; 24.3 (5.5) | n= 9; 29.4 (5.9) | 0.0387 |
| Median (IQR) | 26.0 (21-30) | 25.5 (20-30) | 28.0 (26-33) | 0.0646 |

3.5. CONCLUSION OF FINDINGS ON THE INFLUENCE OF ENTREPRENEURSHIP ECOSYSTEMS ON EE METHODS AND SKILLS DEVELOPMENT

The final research objective aimed to explore how entrepreneurship ecosystems influence the selection and effectiveness of EE methods at the participating universities. The survey findings indicate that with the exception of the Culture domain, MUBS lecturers consistently rated the impact of all ecosystem factors on students' entrepreneurial skills higher than their counterparts at BCU. This suggests that MUBS lecturers perceive a stronger connection between ecosystem elements and the development of entrepreneurship skills in their students. These findings suggest that indeed, the local entrepreneurship ecosystem plays a crucial role in shaping lecturers' perceptions of the most effective methods for developing students' entrepreneurship skills.

4. VALIDITY AND RELIABILITY IN THE PRE-STUDY

To enhance the validity and reliability of the pre-study, several methodological safeguards were implemented, ensuring that the quantitative survey data was both accurate and dependable (Creswell & Creswell, 2018; Cohen et al., 2011). Given that the pre-study aimed to establish broad trends and correlations in entrepreneurship education (EE) before the qualitative phase, rigorous instrument design, sampling strategies, and data analysis techniques were applied.

a) Instrument Development and Ethics Approval

To ensure content validity, the survey instruments were carefully designed based on established frameworks in EE and existing literature on entrepreneurial competencies, pedagogical effectiveness, and ecosystem factors (Fayolle and Gailly, 2015; Nabi et al., 2017). Before administration, the survey questions were pre-tested on a small subset of students and lecturers from both BCU and MUBS to identify ambiguities and inconsistencies in wording, ensure clarity and relevance of questions, and assess the appropriateness of response options, particularly on Likert-scale items. This pre-testing phase led to minor revisions, improving the accuracy and interpretability of responses.

b) Standardisation of Data Collection

To enhance reliability, the surveys were:

- Administered online, ensuring consistency in question delivery across participants.
- Conducted within a controlled timeframe, minimising external influences on responses.
- Designed using mainly structured, closed-ended questions, reducing subjectivity and response bias (Bryman, 2016).

Additionally, participants were provided with clear instructions and definitions to ensure uniform understanding across both institutions.

c) Sampling and Representativeness

The pre-study adopted stratified random sampling, ensuring that both students and lecturers from business faculties at BCU and MUBS were adequately represented (Saunders et al., 2019). This method enhanced the general reliability of findings by ensuring that key subgroups – especially first-year and third-year students, as well as faculty members engaged in EE – were all included.

d) Data Analysis and Cross-Validation

To ensure statistical reliability, the survey data underwent both descriptive and inferential statistical analysis.

- Descriptive statistics (e.g., mean, standard deviation, frequency distributions) were used to summarise responses.
- Inferential techniques, including correlation analysis and significance testing, assessed relationships between variables (Field, 2018).

Findings were cross-validated by comparing results across different respondent groups (students vs. lecturers, first-years vs. third-years) to check for internal consistency. Additionally, reliability testing using Cronbach's alpha was conducted on multi-item scales to ensure internal consistency in the measurement of key constructs (Tavakol & Dennick, 2011).

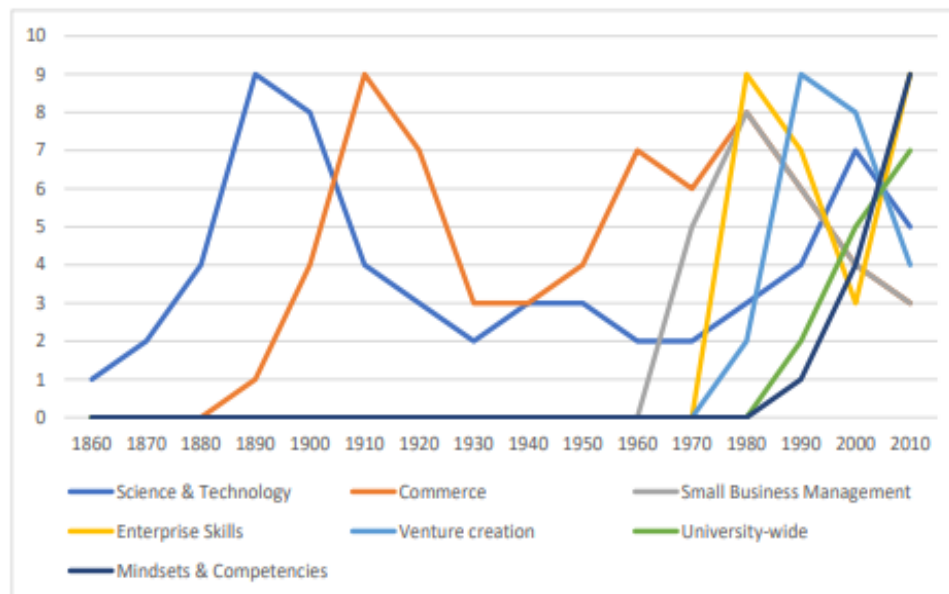
e) Triangulation and Integration with Qualitative Findings

To enhance the validity of interpretations, the pre-study findings were not used in isolation but were instead triangulated with qualitative focus group data. This approach ensured that the patterns identified in the quantitative phase were meaningfully explored and explained. These rigorous validity and reliability measures, ensured that the pre-study provided a robust empirical foundation for the subsequent qualitative phase, ensuring that the study was both methodologically sound and theoretically grounded.

9.5 PERIODIC EMERGENCE OF ENTREPRENEURSHIP EDUCATION IN THE UK

As captured in Figure 60 (Pittaway, et.al 2023), the evolution of EE in the UK can be traced through distinct phases, each influenced by broader social, economic, and political developments. This section provides an overview of the historical trajectory of EE, highlighting key developments, themes and trends over time.

Figure 60: Strands of Entrepreneurship Education in the United Kingdom 1860-2020 (Pittaway et.al, 2023)



A. THE INDUSTRIAL REVOLUTION PERIOD

Historically, UK universities were primarily focused on producing clergy, reflecting their close ties with the church (The Medieval University, 2007). It wasn't until the mid-17th century that they began evolving into institutions for professions such as banking and politics. Until then, skills were often acquired through family apprenticeships (Ruef, 2020). The emergence of EE in the 19th century in the United States and Germany influenced the UK, which, in response to industrial advancements and competition, began to emphasise technical education (Wadhvani and Viebig, 2021). This led to the establishment of technical colleges and polytechnics that putting practical and vocational training at the centre of education (Sanderson, 1972; Pratt, 1997). Subsequently, several technical colleges and polytechnics were established further emphasising practical education and vocational training (Gray, 1912).

Inevitably, this put other disciplines such as EE on a backfoot (Brown et al., 1996; Tiratsoo, 1998). It was the Scottish universities that were pioneers in integrating academic entrepreneurship into higher education, followed by English civic universities like Manchester, Liverpool, and Leeds, which connected education with industry needs (Sanderson, 1972; Rose et al., 2013). This early stage of EE in the UK focused on aligning education with the demands of rapidly evolving industries and fostering "*scientifically trained*" entrepreneurs, particularly among the children of industrialists (Sanderson, 1972; Jones, 2019). Despite these efforts, the UK lagged behind the US and Germany in commercial education, where such education was more advanced (Jones, 2019). Overall, the UK's early EE efforts reflected a national interest in fostering industrial innovation through education, albeit with some delays compared to international counterparts.

B. THE APPLIED ECONOMICS' PHASE

During the Applied Economics phase, the development of EE in the UK was heavily influenced by commercial education initiatives that had emerged in the United States in the 1820s, focusing mainly on business law, accounting, and practical applications like business simulations (Wadhvani and Viebig, 2021). By the 1890s, this trend began to shape UK educational institutions, driven by key legislative changes such as the Limited Liability Acts of 1856-1862, which emphasised the importance of accountancy training (Ireland, 1984), the growing complexity of production management, and the need to address labour militancy and industrial relations issues - which further heightened the focus on economics as a key area of study (Sanderson, 1972).

Recognising a gap in commercial education, the UK saw the establishment of key institutions like the London School of Economics (LSE) the Faculty of Commerce at Birmingham University, and the Cambridge Economics department. Birmingham's initiative was notably influenced by a study delegation to the US in 1898, led by Arthur Chamberlin, which underscored the benefits of close ties between academia and industry. This led to the proposal of a faculty of commerce at Birmingham, which mirrored the US approach by involving industry professionals in teaching and advisory roles (Pressey, 2017). The success of Birmingham's initiative spurred other UK universities to offer programmes in "applied economics" eventually shifting towards "commerce" (Sanderson, 1972, p. 207). Even then,

this phase of EE was more aligned with management and international business as opposed to today's kind of EE (Sanderson, 1972). This was partly because this strand of EE was focused on training individuals from merchant and industrialist families, primarily third-generation entrepreneurs involved in running family businesses (Sanderson, 1972).

C. THE 1960S: HIGHER EDUCATION EXPLOSION

During the 1960s, the focus in the UK shifted from training entrepreneurs to training managers, influenced by post-war labour shortages and the evolving nature of business ownership. As companies grew and moved away from family ownership, there was an increasing need for higher education-trained managers to handle the complexities of these larger enterprises. This led to the emergence of "*industrial administration*", a form of management education that emphasised practical business skills over traditional commerce education (Dimock, 1956; Ivory et al., 2006; 2011).

After World War II, concerns about deficiencies in science and technology prompted further expansion of universities in the 1940s and 1950s. This period also saw management education evolve to include more mathematics and analytical skills (Dimock, 1956). One significant development in the 1960s was the establishment of new universities across the UK, including the transformation of thirty technical colleges into polytechnics. These institutions introduced vocational subjects and sandwich degrees, combining academic study with industry experience (Ivory et al., 2006; 2011).

In terms of modern business education in the UK, two notable developments emerge during this period. First, the establishment of new management schools at Lancaster and Warwick, which set the stage for modern business education in the UK. Additionally, the (\$9 million) US Marshall grant provided funding for UK to build US style postgraduate and post-experience business education (Sanderson, 1972; Locke, 1989), leading to the formation of graduate business schools at institutions like the London School of Economics and Manchester (Pullan and Abendstern, 2000).

Despite these initiatives inspiring other universities to establish modern business schools during the 1960s (Tiratsoo, 1998), EE remained limited during this period, with the exception of the "Young Enterprise" programme founded by Sir Walter Salomon in 1962,

and modelled after the US programme "Junior Achievement" which initially focused on business education in secondary schools.

D. FOCUS FROM LARGE COMPANIES TO SMALL MEDIUM-SIZED ENTERPRISES (SMEs)

In the UK, EE developed later than in the US, primarily because UK business education in the 1960s was focused on large companies, with little emphasis on small and medium-sized enterprises (SMEs). In fact, teaching entrepreneurship and small business management was often considered unconventional within academia (Watkins and Stone, 1999). The shift towards SMEs began with the 1971 "Bolton Report", which recognised the crucial role of small firms in economic growth (Bolton, 1971). This led to the introduction of the first entrepreneurship programmes as electives in postgraduate courses, such as those at Manchester Business School, which became popular and influenced similar initiatives across other institutions (Wapshott and Mallett, 2022).

In response, programmes like the National Small Business Management Teachers Programme (1977) and the United Kingdom Enterprise Management and Research Association (now ISBE) were developed to train university staff in teaching small business management and promote research collaboration with SMEs. Additionally, the New Enterprise Programme at Manchester Business School was introduced to help senior managers start their own ventures (Watkins, 1979). However, during this period, a gap remained as most academic efforts focused on researching SMEs rather than providing practical education tailored to their needs (Watkins and Stone, 1999).

E. THE "THATCHERITE ENTREPRENEURS"

The late 1980s marked a significant shift in EE in the UK, with a growing focus on small business management and the fostering of enterprise skills. This change was driven by initiatives like the Manpower Services Commission's start-up courses, which aimed to help unemployed individuals start their own businesses, reflecting the increasing importance of entrepreneurship in the UK economy (Kirby, 1982; Watkins and Stone, 1999). Despite initial reluctance from universities, key developments occurred, such as Allan Gibb's establishment of the Small Business Centre at Durham University, which became a pioneering model for EE

in the UK. Gibb's success influenced other universities, including the Scottish Enterprise Foundation at Stirling University, to adopt similar approaches (Vesper and Gartner, 1997).

Simultaneously, the rise of small and medium-sized enterprises (SMEs) as major job creators (Birch, 1979) aligned with the political and economic climate under Prime Minister Margaret Thatcher. Her government's right-wing, capitalist policies, which emphasised reduced state intervention, further promoted an enterprise culture and shifted EE's focus toward venture creation and self-employment as alternatives to unemployment (Pittaway et al., 2023). This led to a proliferation of programmes and initiatives, including the Shell Technology Enterprise Programme (STEP) and the Graduate Apprenticeship Programme (GAP) at Durham University, which introduced students to entrepreneurship through experiential learning (Pittaway et al., 2023). Organisations like the Royal Society of Arts also advocated for education that emphasised practical skills and problem-solving, while schemes such as the “Enterprise in Higher Education” initiative by the Manpower Services Commission also aimed to embed enterprise activities in higher education institutions – thereby creating the so called “Thatcherite Entrepreneurs” (Brown, 1990; Kirby, 1992; Stanworth, 2014; Bannock, 2014).

By the end of the decade, EE had gained significant traction, with efforts to establish it as a distinct academic discipline despite some academic scepticism about its practicality (Grant, 1986; Elton, 1991, 1995; Wright, 1992; Bridges, 1992; MacDonald and Coffield, 1991; Coffield, 1992; Erkkila, 2000).

F. “FOR” AND “ABOUT” ENTREPRENEURSHIP

In the 1990s, EE in the UK shifted focus from merely promoting enterprise skills to supporting existing SMEs. This change was driven by a significant increase in new businesses and the need to enhance the quality and competitiveness of these SMEs rather than just increasing their numbers (Storey and Greene, 2010). This period saw the devolution of policy support for small businesses, with the establishment of Training and Enterprise Councils (TECs) and Business Links to offer localised and regional assistance (Greene, 2002). Additionally, the Small Firms Enterprise Development Initiative (SFEDI) was introduced to create nationally recognized standards for small businesses (SFEDI, 1999).

A crucial realisation during this time was that entrepreneurs with degrees and access to financial capital were more likely to succeed (Bates, 1990). Consequently, there was a growing emphasis on supporting graduates who might take on leadership roles in expanding companies, aligning with the broader policy narrative of enhancing existing SMEs (Burke et al., 2001). This led to a variety of EE approaches, including management development for SME owners, degrees focusing on new venture creation, and practical training for technology-based start-ups (Storey and Greene, 2010).

This period also witnessed the emergence of two distinct strands of EE: "*for entrepreneurship*" and "*about entrepreneurship*", each with different teaching and assessment approaches (Levie, 1999). While the former focused on providing students with practical entrepreneurial experiences, the latter remained largely theoretical (Ohe, 1996).

Meanwhile, internationally, there was a growing trend towards full degree programmes in EE, supported by new theoretical models like the "triple helix model" and the concept of the entrepreneurial university (Etzkowitz and Leydesdorff, 1995; Clarke, 1998). The 1990s also marked the expansion of EE through the establishment of academic chairs, PhDs, and research centres focused on entrepreneurship, signifying that EE had become genuinely mainstream (Stone and Watkins, 1999). This interest especially by researchers and academics laid the groundwork for future research and critical evaluation upon which today's EE is built (Curran and Stanworth, 1989; Garavan and Ó Cinnéide, 1994; Cox, 1996; Gibb, 1996; Jennings and Hawley, 1996).

G. THE BLAIR YEARS

During Tony Blair's tenure as Prime Minister starting in May 1997, the UK government implemented several significant policies that impacted EE. Blair's New Labour government, with its centrist approach, initiated devolution, granting educational policy-making powers to Wales, Northern Ireland, and Scotland, leading to varied approaches to EE across the UK (Price, 2004). However, educational policy in England remained centralised, although Regional Development Agencies (RDAs) were established in 1998 to promote regional development. These agencies, like the North-West Regional Development Agency (NWDA), supported universities in developing innovative EE programmes tailored to regional needs (Rose et al., 2013)., while others, like the South East England Development Agency (SEEDA),

provided grants for EE courses and programmes through regional networks such as the Higher Education Enterprise Group (HEEG) (Watkins and Stone, 1999; Pittaway et al., 2023).

One of the key developments during this period was "The Dearing Report" of 1997, which recommended expanding EE in universities, particularly programmes focused on venture creation – particularly recommendation 40. This was further supported by the 1998 White Paper on Competitiveness, which advocated for more EE in higher education institutions (Levie, 1999). Inspired by U.S. institutions like MIT, there was a growing emphasis on entrepreneurship in non-business disciplines such as science, engineering, and technology, leading to a surge in university-wide EE programmes.

Drawing inspiration from US institutions like Massachusetts Institute of Technology (MIT), there was a general appreciation of the potential of non-business disciplines of science, engineering, and technology for venture creation. This saw a surge in **university-wide** EE, with universities offering more entrepreneurship related courses, particularly **extracurricular activities** (Price, 2004). To further bolster this, the UK Treasury launched the "Science Enterprise Challenge" (SEC), a £25 million competition to establish eight "institutes of enterprise" focused on teaching entrepreneurship in STEM subjects. This initiative evolved into the UK Science Enterprise Centres (UKSEC) and later Enterprise Educators UK, involving over 60 universities and significantly expanding the scope and impact of EE in the UK (EEUK, 2024).

H. SKILLS PERSPECTIVES: ENTREPRENEURSHIP VS ENTERPRISE VS EMPLOYABILITY

From 2010 onwards, the focus within UK higher education began shifting more prominently towards employability skills, alongside traditional entrepreneurship education (EE). This period saw entrepreneurship gaining visibility through popular television programmes like the BBCs "*Dragon's Den*" and "*The Apprentice*", which featured "graduate entrepreneurs" and inspired students to pursue entrepreneurial endeavours (Rae et al., 2012; BBC, 2024). Universities started incorporating entrepreneurial terminology into their mission statements, reflecting a broader institutional commitment to fostering entrepreneurship (Pittaway et al., 2023). A defining feature of this era was the rapid expansion of **extracurricular activities** aimed at equipping students with entrepreneurship skills.

However, most of these initiatives were voluntary and non-credit bearing until recent years (Pittaway et al., 2023).

Amidst ongoing discussions about the distinction between employability and entrepreneurship skills, a formal differentiation between enterprise education and EE also emerged. Enterprise education began focusing more on developing specific skills and competencies, while EE concentrated on imparting the knowledge and techniques necessary to become a successful entrepreneur (Rae et al., 2012; Pittaway et al., 2023).

During this period, academic research in EE continued to thrive, leading to new frameworks for entrepreneurial competencies, such as the European Commission's "*EntreComp*", which outlines fifteen key entrepreneurship competencies (Bacigalupo, et.al, 2016). The UK's QAA also issued guidance emphasising the distinction between curriculum-based and extracurricular learning and encouraging universities to develop experiential learning methodologies to enhance entrepreneurial competencies (QAA, 2018). This period continued to witness significant growth in university-wide efforts to promote entrepreneurship, particularly through co-curricular and extracurricular initiatives (Rae et al., 2012; QAA, 2012; 2012; Schindehutte and Morris, 2016; Pittaway, et al., 2023).

9.6 EVOLUTION OF ENTREPRENEURSHIP EDUCATION IN UGANDA

The evolution of education, and by extension EE in Uganda has been shaped by a combination of historical, political, and economic factors, reflecting the broader challenges and transformations within the country's turbulent political and educational landscape, which can be categorised into three major periods, as outlined below.

A. PRE-INDEPENDENCE EDUCATION LANDSCAPE

The origins of formal education in Uganda can be traced back to the late 19th century, with the arrival of British missionaries in 1877. These missionaries, apparently concerned with spreading Christianity, laid the groundwork for Uganda's education system by introducing literacy and Western values to the indigenous population (Beck, 1966). The primary focus of education during this period was religious instruction, with an emphasis on converting Ugandans to Christianity and teaching them to read the Bible. As a result, the initial education system was closely tied to religious missions, and the British colonial administration did not officially prioritise education as a key function of governance.

By 1894, Uganda had become a British Protectorate, and the colonial administration continued to rely heavily on missionary bodies to provide education to the local population. The government's involvement in education was minimal, as evidenced by the absence of a dedicated department for education among the 15 government departments in 1903 (Hussey, 1937; Motani, 1979). The reliance on missionary schools resulted in a fragmented education system, with three parallel systems established by different missionary organizations: the Church Missionary Society, the White Fathers' Mission, and the Mill Hill Mission. These systems operated independently, with limited coordination or oversight from the government (Beck, 1966).

Soon, it became apparent that educational landscape primarily served the elite, leaving the majority of the population from impoverished backgrounds unable to afford formal education, thus perpetuating widespread illiteracy and inequality of outcomes among the masses (World Bank, 1990; New Vision, 2012). The early 20th century saw increasing recognition of the importance of education for native administration. As education became more popular among Ugandans as it provided qualifications for government service,

offering a path to social mobility, it prompted the colonial government to take a more active role in shaping the education system. In 1925, the British Protectorate government established the Directorate of Education to oversee the development and administration of education in Uganda (Education Policy Review Commission Report, 1989). An inquiry conducted in the same year highlighted the achievements of the missionary-led education systems but also pointed out the lack of coordination and the need for a more structured approach to education. The recommendations from this inquiry were endorsed by the Advisory Committee on Native Education in Tropical Africa and formed the basis for a five-year expansion plan led by Sir William Gowers, the Governor of Uganda at the time (Beck, 1966; Motani, 1979). This plan included significant investments in educational infrastructure, including the recommendation by the De La Warr Commission to remodel Makerere University, established in 1922, into a regional institution serving Uganda, Kenya, and Tanganyika (Hussey, 1937; Motani, 1979). Makerere University would go on to play a central role in higher education in East Africa, becoming a hub for training professionals who would lead the region's post-independence governments.

Despite these developments, the education system in Uganda remained largely fragmented, with missionary and government-run schools continuing to operate on parallel tracks. The post-World War II period brought increased pressure for greater flexibility in curricula and more significant government control over the education system (Beck, 1966). The colonial administration responded by initiating various commissions aimed at improving education in Uganda. Notably, the Binns Commission of 1951 (UK Parliament, 1957) and the Bernard de Bunsen Commission of 1953 (Evans, 1994; Education Policy Review Commission Report, 1989) which emphasised the need for education to support economic development by training the necessary manpower (Evans, 1994). However, these efforts were primarily aligned with British interests and the goals of the religious missions that controlled most of the secondary schools in Uganda (UK Parliament, 1957; Evans, 1994). This duality in educational objectives persisted until Uganda gained independence in 1962.

B. EDUCATION LANDSCAPE BETWEEN INDEPENDENCE AND 1986

Mirrored on the colonial system of education (7+2+4), Uganda emerged from British rule in 1962 with a relatively advanced education system, especially when compared to neighbouring countries like Kenya and Tanzania (Millar, 2008; Paige, 2000). Makerere University, located in Kampala, was the only university in the region at the time, highlighting Uganda's educational advantage (World Bank, 1990).

However, it quickly became evident that the colonial education system was inadequate for the newly independent nation's needs. The government of Uganda sought to reshape the education system to align with national interests and aspirations. Shortly after independence, the Ugandan government established the Castle Commission, chaired by E.B. Castle, to assess and strengthen the country's education system. The Castle Commission's recommendations signalled a shift towards greater autonomy and self-determination in shaping Uganda's education policies. The commission advocated for universal primary education and the development of a skilled workforce to meet the country's growing economic needs (World Bank, 1988). These recommendations emphasized the importance of livelihood preparation, literacy, critical thinking, and skills development as essential components of the education system (Ward et al., 2006).

However, the post-independence period was marked by significant challenges. Uganda experienced political instability, economic recession, and social upheaval, particularly during the 1970s (World Bank, 1990; Mwakikagile, 2012; Reid, 2017). The 1971 coup d'état led by General Idi Amin, which overthrew the government of President Dr. Apollo Milton Obote, plunged the country into turmoil. Amin's regime was characterised by economic mismanagement, inflation, infrastructure decay, and a massive exodus of skilled manpower, including the expulsion of entrepreneurial Ugandan Indians (Patel, 1972; Lofchie, 1972; World Bank, 1990). These developments severely impacted the education sector, leading to a decline in educational quality and access (Odaet, 1990; Klasen and Lawson, 2007; Wali et al., 2012).

Following the overthrow of Amin by Dr. Obote (II) in 1979, Uganda embarked on a Recovery Programme (1982-84) to reconstruct the education system and address the damage

inflicted during the previous decade (World Bank, 1990). The programme emphasised teacher education to address shortages, decentralisation of academic administration to reduce bureaucracy, curriculum diversification, and the promotion of self-help initiatives in schools. However, these efforts were disrupted by the protracted guerrilla warfare that eventually ousted Dr. Obote in 1986, further delaying the recovery and reform of the education sector (World Bank, 1990).

C. STRUCTURAL ADJUSTMENTS AND EDUCATION POLICY INTERVENTIONS (1986-PRESENT)

The ascent of President Yoweri Kaguta Museveni in 1986 marked a pivotal moment in Uganda's history, with significant implications for the education sector. Museveni's government aimed to revamp the education system as part of a broader socio-economic development agenda, aligning it with the government's 10-point programme, which included the transformation of Uganda from a subsistence economy to a commercial, self-sustaining economy (New Vision, 2008; Jorgensen, 2023).

However, before embarking on educational reforms, the government had to address the country's devastated economy, which had been severely affected by years of war and political instability. As a condition for funding from international financial institutions such as the IMF and World Bank, Uganda had to implement the Structural Adjustment Programme (SAP) in the late 1980s and early 1990s (Dijkstra, JK Van Dongem, 2001). SAP emphasised cost recovery measures, reduced public spending, and a huge privatisation drive (Heidhues and Obare, 2011). While these policies were intended to stabilise the economy, they had adverse effects on the education sector, leading to reduced access to quality education and increased inequality (World Bank, 1989; Mamdani, 1990; Kadzamira and Rose, 2005).

One of the most significant consequences of SAP was the reduction in government expenditure on education, which, coupled with privatisation, resulted in high levels of unemployment and widespread poverty. Many families could no longer afford even basic primary education, leading to a decline in school enrolment rates (Dijkstra and Donge, 2001). In response to these challenges, the Ugandan government introduced the Universal Primary Education (UPE) policy in 1997 as part of its commitment to the Education for All

(EFA) initiative (Miles and Singal, 2010). UPE was a groundbreaking policy in Sub-Saharan Africa, as it removed tuition fees and made primary education accessible to all children, particularly those from disadvantaged backgrounds (Ninshimura, et al., 2008; Grogan, 2009; Moussa and Omoeva, 2020). This led to a significant increase in primary school enrolment in Uganda, with millions of children gaining access to education for the first time (Sekiwu, et al., 2020).

However, the rapid expansion of enrolment placed immense pressure on the education system, leading to overcrowded classrooms, inadequate infrastructure, and a shortage of trained teachers (Grogan, 1997; Sekiwu et al., 2020). Despite these challenges, UPE represented a critical step towards achieving universal education and improving literacy rates in Uganda.

D. ENTREPRENEURSHIP EDUCATION INTEGRATION IN UGANDA

The formal integration of EE within Uganda's higher education framework can be traced back to the mid-1980s. John Bikangaga, the Chairman of the Makerere University Council, raised concerns about the increasing trend of graduate unemployment and questioned which educational fields should be prioritised to address these challenges (Bikangaga, 1986).

"Already, the majority of our graduates who leave this University are jobless. I am sorry to say that we have little or no knowledge of their whereabouts or what they are doing to earn their living. Now, if our present annual turn-over of graduates cannot be absorbed and we decide to expand University education, in which fields should this be done?" (Bikangaga, 1986).

His concerns highlighted the need for educational reform to equip graduates with the skills and mindset necessary for creating job opportunities rather than solely seeking employment. In response to these concerns, the Ugandan government took proactive steps to assess the university education system and propose strategic recommendations. The government convened a Visitation Committee to conduct a comprehensive assessment of the entire university education system. This marked the beginning of efforts to integrate EE into the curriculum as a proactive measure to address unemployment challenges. The aim was to produce graduates who were not only academically qualified but also equipped with the entrepreneurial skills needed to create jobs and contribute to economic development.

Since then, the integration of EE in Uganda's education system has been slow and gradual, with various initiatives and programmes introduced over the years. And despite the challenges posed by a lack of resources and infrastructure, EE has gained traction in schools and tertiary institutions across the country. The focus has been on promoting creativity, innovation, and business acumen among students, with the ultimate goal of reducing youth unemployment and fostering economic growth. In recent years, the integration of EE within the academic curriculum has gained importance, particularly in light of high youth unemployment rates. EE initiatives have been gradually incorporated into schools and tertiary institutions to foster an entrepreneurial mindset and equip students with relevant skills for self-employment. These initiatives have been particularly prominent in private schools, where there is a growing recognition of the need to adapt the curriculum to meet the evolving demands of the labour market and the entrepreneurship landscape in Uganda (Kirunda and Iga, 2017). The Ministry of Education and Sports has also played a crucial role in promoting entrepreneurial learning by developing curricula and programmes that nurture creativity, innovation, and business acumen among students.

Despite the progress made in integrating EE, challenges remain. These include skill gaps, inadequate teacher training, and the need for continuous improvements in educational infrastructure. Additionally, youth unemployment remains a significant issue, highlighting the need for a more integrated and comprehensive approach to EE. As Uganda continues to develop its education system, the focus on fostering an entrepreneurial mindset and workforce aligned with the country's development needs will be crucial for achieving sustainable economic growth.

9.7 ETHICS APPROVAL

24/08/2024, 19:59

Application Aguma /3372 /R(C) /2019 /Jul /BLSS FAEC - Exploring the impact of entrepreneurship ecosystems on the choice ...

Application Aguma /3372 /R(C) /2019 /Jul /BLSS FAEC - Exploring the impact of entrepreneurship ecosystems on the choice and effectiveness various methods of entrepreneurship education

donotreply@infonetica.net <donotreply@infonetica.net>

Tue 16/07/2019 17:18

To:Dennis Aguma <[redacted]@mail.bcu.ac.uk>

Cc:Susan Sisay <[redacted]@bcu.ac.uk>;Charlotte Carey <[redacted]@bcu.ac.uk>;BLSS Ethics <[redacted]@bcu.ac.uk>

📎 1 attachments (93 KB)

Letter.pdf;

Dear Mr Dennis Aguma

Please find attached the chair letter regarding your ethics application Aguma /3372 /R(C) /2019 /Jul /BLSS FAEC - Exploring the impact of entrepreneurship ecosystems on the choice and effectiveness various methods of entrepreneurship education

Please note!

If you are a student undertaking a PhD (including GRTAs) or EdD via the Doctoral Research College at in HELS you will need to forward a copy of your approval letter to the Doctoral Research College Office:

[\[redacted\]@bcu.ac.uk](#)

Also we would like your feedback to help us improve. Please feel free to leave *anonymous* feedback [here](#). This will be used for internal uses only.

Thank you.



Faculty of Business, Law & Social Sciences Research Office
Curzon Building, 4 Cardigan Street
Birmingham
B4 7BD

BLSSethics@bcu.ac.uk;

16/Jul/2019

Mr Dennis Aguma

@mail.bcu.ac.uk

Dear Dennis ,

Re: Aguma /3372 /R(C) /2019 /Jul /BLSS FAEC - Exploring the impact of entrepreneurship ecosystems on the choice and effectiveness various methods of entrepreneurship education

Thank you for your application and documentation regarding the above study. I am pleased to confirm that Birmingham City University has agreed to take on the role of Sponsor.

Birmingham City University can confirm that our insurance indemnity cover includes the actions of researchers working in suitable premises and under appropriate supervision. Our policy cover will not apply to liability that is more specifically insured under any policy covering medical negligence, malpractice or indemnity, professional errors, omissions or negligence.

A copy of BCU's insurance details is available at:
<https://icity.bcu.ac.uk/Legal-Services-and-Compliance/Insurance/Index>

If you wish to make any changes to your proposed study (by request or otherwise), then you must submit an Amendment application to us. Examples of changes include (but are not limited to) adding a new study site, a new method of participant recruitment, adding a new method of data collection and/or change of Project Lead.

Please also note that the Committee should be notified of any serious adverse effects arising as a result of this activity.

Keep a copy of this letter along with the corresponding application for your records as evidence of approval.

If you have any queries, please contact BLSSethics@bcu.ac.uk;

I wish you every success with your study.

Yours Sincerely,

Professor Maxine Lintern

On behalf of the Business, Law and Social Sciences Faculty Academic Ethics Committee

A. MUBS APPROVAL

24/08/2024, 19:38

Email - Dennis Aguma - Outlook

Re: PhD Research / Data Collection

Dennis Aguma <[redacted]@mail.bcu.ac.uk>

Fri 13/09/2019 16:16

To: Dr Abaho <[redacted]@mubs.ac.ug>

Cc: Dr Abaho <[redacted]@gmail.com>

1 attachments (338 KB)

MUBS - Student Invitation & Information Sheet.pdf;

Dear Dr Abaho,

Please find attached an updated version of the information document.

The survey links remain unchanged.

o Students' survey - https://blss.eu.qualtrics.com/jfe/form/SV_cVlrGxY8HihZaRL

o Lecturers' survey - https://blss.eu.qualtrics.com/jfe/form/SV_dcnkZlqZnj7qeBD

With thanks!

Dennis Aguma

Visiting Lecturer | PhD Researcher (Entrepreneurship)

T: +44 [redacted] uk.linkedin.com/in/aguma

Information in this email and any attachments are confidential, and may not be copied or used by anyone other than the addressee, nor disclosed to any third party without our permission.

On 13 Sep 2019, at 14:18, Dennis Aguma <[redacted]@mail.bcu.ac.uk> wrote:

Dear Dr Abaho,

Further to previous discussions regarding my research.

Please find attached your access request letter and the invitation / information sheet for participants.

I'd be grateful if you could please forward the information letter and survey links to students (1st year and 3rd year entrepreneurship students) and lecturers respectively, for completion at your earliest convenience.

Here is the link to the students' survey -

https://blss.eu.qualtrics.com/jfe/form/SV_cVlrGxY8HihZaRL

Here is the link to lecturers' survey -

https://blss.eu.qualtrics.com/jfe/form/SV_dcnkZlqZnj7qeBD

I trust that this is clear. But please do not hesitate to contact me should you require any further information or clarification.

With thanks,

<https://outlook.office.com/mail/id/AAQkADc1OGJmYTk2LWlxOGYlNGM4Mj04YmFiLTNjYmMwOTQzNDkxMAAQAFn0qUkLWn1DrSjeBKQpUYw...> 1/2

24/08/2024, 19:38

Email - Dennis Aguma - Outlook

Dennis

B.



MAKERERE UNIVERSITY BUSINESS SCHOOL

Plot 21A, Port bell Road, P.O Box 1337, Kampala – Uganda

Phone: Direct Line: +256-414-338173; General Line: +256 – 414 – 338120; Fax: +256-414-505921

Department of Entrepreneurship

September 18, 2019

Mr. Dennis Aguma
PhD Student
Birmingham City University, UK

Dear Mr. Aguma

RE: APPROVAL TO CONDUCT RESEARCH

I bring you my warmest regards from Makerere University Business School. Following your email dated September 13, 2019 requesting access to students and staff within the Department of Entrepreneurship, I am pleased to confirm that you have been granted permission to do so.

This approval is based on the ethics clearance you have already obtained from Birmingham City University. Upon your arrival at the university, I will assign specific students and staff members to assist you in recruiting participants for your research. Please let me know if you need any further assistance and I wish you success in your research endeavors.

Sincerely

A handwritten signature in blue ink, appearing to read 'Ernest Abaho'.

Prof. Ernest Abaho
HEAD OF DEPARTMENT

B. COBAMS' ENGAGEMENT

24/08/2024, 19:39

Email - Dennis Aguma - Outlook

Re: PhD Research / Data Collection

Peter Turyakira <[redacted]@gmail.com>

Mon 16/09/2019 13:01

To: Dennis Aguma <[redacted]@mail.bcu.ac.uk>

Cc: Cathy Mbidde <[redacted]@gmail.com>; Sarah Bimbona <[redacted]@gmail.com>

Dear Sarah and Cathy,

Dennis needs your assistance in linking him to students doing Entrepreneurship module/course to respond to his research tools. You can advise accordingly.

Regards,

Peter

On Fri, Sep 13, 2019 at 6:08 PM Dennis Aguma <[redacted]@mail.bcu.ac.uk> wrote:

Dear Dr Turyakira,

Further to previous discussions regarding my PhD research.

Please find attached your access request letter and the invitation / information sheet for participants.

As i haven't got access to your mailing list, I'd be grateful if you could please help and forward the information letter and survey links to all entrepreneurship students and lecturers, for completion at their earliest convenience.

The same links and documents can also be sent via WhatsApp, as i understand that sometimes, the communication happens via closed WhatsApp groups.

Here is the link to the students' survey - https://blss.eu.qualtrics.com/jfe/form/SV_cVlrGxY8HihZaRL

Here is the link to lecturers' survey - https://blss.eu.qualtrics.com/jfe/form/SV_dcnkZlqZnj7qeBD

I trust that this is clear. But please do not hesitate to contact me should you require any further information or clarification.

Your help is greatly appreciated.

With thanks,

Dennis

Dennis Aguma

Visiting Lecturer / PhD Researcher (Entrepreneurship)

T: <[redacted] uk.linkedin.com/in/aguma

Information in this email and any attachments are confidential, and may not be copied or used by anyone other than the addressee, nor disclosed to any third party without our permission.

9.8 THE GLOBAL ENTREPRENEURSHIP INDEX RANK OF ALL COUNTRIES, 2019

| Global rank | Country | Score |
|-------------|----------------------|-------|
| 1 | United States | 86.8 |
| 2 | Switzerland | 82.2 |
| 3 | Canada | 80.4 |
| 4 | Denmark | 79.3 |
| 5 | United Kingdom | 77.5 |
| 6 | Australia | 73.1 |
| 7 | Iceland | 73.0 |
| 8 | Netherlands | 72.3 |
| 9 | Ireland | 71.3 |
| 10 | Sweden | 70.2 |
| 11 | Finland | 70.2 |
| 12 | Israel | 67.9 |
| 13 | Hong Kong | 67.9 |
| 14 | France | 67.1 |
| 15 | Germany | 66.7 |
| 16 | Austria | 64.9 |
| 17 | Belgium | 62.2 |
| 18 | Taiwan | 62.1 |
| 19 | Chile | 58.3 |
| 20 | Luxembourg | 58.1 |
| 21 | Korea | 58.1 |
| 22 | Estonia | 57.8 |
| 23 | Slovenia | 56.5 |
| 24 | Norway | 56.1 |
| 25 | United Arab Emirates | 54.2 |
| 26 | Japan | 53.3 |
| 27 | Singapore | 52.4 |
| 28 | Qatar | 51.6 |
| 29 | Poland | 49.5 |
| 30 | Puerto Rico | 48.7 |
| 31 | Spain | 46.9 |
| 32 | Portugal | 46.3 |
| 33 | Hungary | 46.2 |
| 34 | China | 45.9 |
| 35 | Cyprus | 45.6 |
| 36 | Italy | 45.1 |
| 37 | Lithuania | 44.1 |
| 38 | Bahrain | 43.8 |
| 39 | Oman | 43.6 |
| 40 | Czech Republic | 43.5 |
| 41 | Slovakia | 42.6 |
| 42 | Saudi Arabia | 42.1 |
| 43 | Malaysia | 40.1 |
| 44 | Turkey | 39.8 |
| 45 | Latvia | 39.3 |
| 46 | Romania | 38.6 |
| 47 | Kuwait | 37.4 |

| Global rank | Country | Score |
|-------------|---------------------|-------|
| 48 | Brunei Darussalam | 36.5 |
| 49 | Croatia | 36.1 |
| 50 | Greece | 35.4 |
| 51 | Botswana | 34.4 |
| 52 | Colombia | 34.1 |
| 53 | Tunisia | 34.0 |
| 54 | Thailand | 33.5 |
| 55 | Barbados | 32.2 |
| 56 | Azerbaijan | 32.1 |
| 57 | Montenegro | 31.8 |
| 58 | South Africa | 31.6 |
| 59 | Kazakhstan | 31.0 |
| 60 | Uruguay | 30.1 |
| 61 | Bulgaria | 30.1 |
| 62 | Namibia | 30.0 |
| 63 | Jordan | 29.4 |
| 64 | Iran | 29.4 |
| 65 | Costa Rica | 28.8 |
| 66 | Lebanon | 28.8 |
| 67 | Serbia | 28.6 |
| 68 | Morocco | 28.3 |
| 69 | Peru | 27.7 |
| 70 | Mexico | 27.1 |
| 71 | Georgia | 26.2 |
| 72 | Belize | 26.2 |
| 73 | Vietnam | 26.0 |
| 74 | Argentina | 26.0 |
| 75 | Indonesia | 26.0 |
| 76 | Panama | 25.5 |
| 77 | Ukraine | 25.2 |
| 78 | India | 25.1 |
| 79 | Jamaica | 24.8 |
| 80 | Russia | 24.8 |
| 81 | Egypt | 24.6 |
| 82 | Armenia | 24.3 |
| 83 | Gabon | 23.8 |
| 84 | Dominican Republic | 23.6 |
| 85 | Macedonia | 23.1 |
| 86 | Philippines | 23.0 |
| 87 | Albania | 22.5 |
| 88 | Algeria | 22.4 |
| 89 | Bolivia | 22.1 |
| 90 | Trinidad and Tobago | 21.7 |
| 91 | Ghana | 21.6 |
| 92 | Nigeria | 20.8 |
| 93 | Senegal | 20.3 |

| Global rank | Country | Score |
|-------------|------------------------|-------|
| 94 | Moldova | 20.2 |
| 95 | Rwanda | 20.0 |
| 96 | Kenya | 19.8 |
| 97 | Bosnia and Herzegovina | 19.5 |
| 98 | Tajikistan | 19.4 |
| 99 | Kyrgyz Republic | 19.2 |
| 100 | Côte d'Ivoire | 19.1 |
| 101 | Sri Lanka | 19.1 |
| 102 | Lao PDR | 19.1 |
| 103 | Swaziland | 18.8 |
| 104 | Guatemala | 18.7 |
| 105 | Ecuador | 18.5 |
| 106 | Suriname | 18.4 |
| 107 | Myanmar | 18.1 |
| 108 | Cambodia | 17.7 |
| 109 | Pakistan | 17.3 |
| 110 | Tanzania | 17.3 |
| 111 | Ethiopia | 17.2 |
| 112 | Honduras | 17.2 |
| 113 | Gambia, The | 17.1 |
| 114 | Libya | 16.6 |
| 115 | Paraguay | 16.6 |
| 116 | Zambia | 16.3 |
| 117 | Guyana | 16.3 |
| 118 | Brazil | 16.1 |
| 119 | Nicaragua | 16.1 |
| 120 | El Salvador | 15.7 |
| 121 | Cameroon | 15.6 |
| 122 | Guinea | 15.5 |
| 123 | Mali | 15.3 |
| 124 | Angola | 15.1 |
| 125 | Uganda | 14.8 |
| 126 | Liberia | 14.8 |
| 127 | Burkina Faso | 13.4 |
| 128 | Benin | 13.3 |
| 129 | Venezuela | 13.1 |
| 130 | Mozambique | 12.8 |
| 131 | Sierra Leone | 12.7 |
| 132 | Bangladesh | 12.5 |
| 133 | Malawi | 11.6 |
| 134 | Mauritania | 10.5 |
| 135 | Burundi | 10.2 |
| 136 | Madagascar | 9.1 |
| 137 | Chad | 8.8 |

9.9 THE DPE INDEX RANKING OF THE COUNTRIES, 2020 (WORLD BANK, 2020)

| Rank | Country | DPE 2020 | GDP 2017 | Rank | Country | DPE 2020 | GDP 2017 | Rank | Country | DPE 2020 | GDP 2017 |
|------|----------------------|----------|----------|------|------------------------|----------|----------|------|--------------------|----------|----------|
| 1 | United States | 85,0 | 54225 | 40 | Slovakia | 40,5 | 30155 | 79 | Ecuador | 21,3 | 10582 |
| 2 | United Kingdom | 82,7 | 39753 | 41 | Hungary | 38,4 | 26778 | 80 | Tunisia | 21,1 | 10849 |
| 3 | Netherlands | 82,4 | 48473 | 42 | Uruguay | 36,3 | 20551 | 81 | Albania | 20,5 | 11803 |
| 4 | Canada | 78,2 | 44018 | 43 | Greece | 35,9 | 24574 | 82 | Vietnam | 20,3 | 6172 |
| 5 | Sweden | 76,8 | 46949 | 44 | Bulgaria | 35,0 | 18563 | 83 | Dominican Republic | 19,8 | 14601 |
| 6 | Switzerland | 76,3 | 57410 | 45 | Croatia | 34,8 | 22670 | 84 | Jamaica | 19,7 | 8194 |
| 7 | Norway | 74,4 | 64800 | 46 | Costa Rica | 34,1 | 15525 | 85 | Egypt | 19,5 | 10550 |
| 8 | Denmark | 71,1 | 46683 | 47 | Romania | 33,0 | 23313 | 86 | Iran | 19,5 | 19083 |
| 9 | Australia | 69,3 | 44649 | 48 | Russia | 32,7 | 24766 | 87 | Botswana | 19,5 | 15807 |
| 10 | Finland | 68,9 | 40586 | 49 | Turkey | 32,3 | 25129 | 88 | Namibia | 18,3 | 9542 |
| 11 | Ireland | 66,0 | 67335 | 50 | Mauritius | 32,0 | 20293 | 89 | Sri Lanka | 18,3 | 11669 |
| 12 | Luxembourg | 65,6 | 94278 | 51 | Brazil | 31,2 | 14103 | 90 | Lebanon | 17,6 | 13368 |
| 13 | New Zealand | 65,3 | 36086 | 52 | Argentina | 30,4 | 18934 | 91 | Kenya | 17,5 | 2993 |
| 14 | Germany | 64,4 | 45229 | 53 | Mexico | 29,4 | 17336 | 92 | Mongolia | 17,3 | 11841 |
| 15 | France | 63,6 | 38606 | 54 | Ukraine | 29,3 | 7894 | 93 | El Salvador | 16,7 | 7292 |
| 16 | Iceland | 62,6 | 46483 | 55 | Saudi Arabia | 29,3 | 49045 | 94 | Paraguay | 15,6 | 8827 |
| 17 | Belgium | 62,5 | 42659 | 56 | Oman | 28,8 | 37961 | 95 | Guatemala | 15,0 | 7424 |
| 18 | Estonia | 60,0 | 29481 | 57 | Montenegro | 28,5 | 16409 | 96 | Senegal | 14,5 | 2471 |
| 19 | Hong Kong | 58,5 | 56055 | 58 | China | 28,1 | 15309 | 97 | Pakistan | 14,0 | 5035 |
| 20 | Austria | 57,0 | 45437 | 59 | Colombia | 28,0 | 13255 | 98 | Honduras | 13,9 | 4542 |
| 21 | Japan | 56,8 | 39002 | 60 | Panama | 28,0 | 22267 | 99 | Nigeria | 13,7 | 5338 |
| 22 | South Korea | 56,4 | 35938 | 61 | Bahrain | 27,6 | 43291 | 100 | Zambia | 13,4 | 3689 |
| 23 | Israel | 56,2 | 33132 | 62 | Serbia | 27,5 | 14049 | 101 | Algeria | 12,5 | 13914 |
| 24 | Singapore | 55,8 | 85535 | 63 | Thailand | 27,2 | 16278 | 102 | Rwanda | 11,9 | 1854 |
| 25 | Spain | 53,5 | 34272 | 64 | Georgia | 26,5 | 9745 | 103 | Nepal | 11,6 | 2443 |
| 26 | Malta | 53,4 | 36513 | 65 | South Africa | 26,4 | 12295 | 104 | Kyrgyzstan | 11,5 | 3393 |
| 27 | Portugal | 50,8 | 27937 | 66 | Macedonia | 25,3 | 13111 | 105 | Bangladesh | 11,2 | 3524 |
| 28 | Czech Republic | 48,9 | 32606 | 67 | Jordan | 25,0 | 8337 | 106 | Uganda | 11,0 | 1698 |
| 29 | Taiwan | 47,1 | 50294 | 68 | Armenia | 25,0 | 8788 | 107 | Cameroon | 10,8 | 3365 |
| 30 | Italy | 46,1 | 35220 | 69 | Moldova | 24,4 | 5190 | 108 | Mali | 10,4 | 2014 |
| 31 | Slovenia | 45,1 | 31401 | 70 | Morocco | 24,4 | 7485 | 109 | Zimbabwe | 10,0 | 1900 |
| 32 | Lithuania | 44,3 | 29524 | 71 | Philippines | 24,3 | 7599 | 110 | Cambodia | 9,8 | 3645 |
| 33 | Cyprus | 44,3 | 32415 | 72 | Azerbaijan | 23,9 | 15847 | 111 | Tanzania | 9,8 | 2683 |
| 34 | United Arab Emirates | 43,1 | 67293 | 73 | India | 23,8 | 6427 | 112 | Malawi | 9,8 | 1095 |
| 35 | Latvia | 42,8 | 25064 | 74 | Peru | 23,6 | 12237 | 113 | Benin | 9,6 | 2064 |
| 36 | Malaysia | 42,1 | 26808 | 75 | Kazakhstan | 23,5 | 24056 | 114 | Madagascar | 7,3 | 1416 |
| 37 | Qatar | 40,7 | 116936 | 76 | Indonesia | 23,1 | 11189 | 115 | Burundi | 6,9 | 702 |
| 38 | Chile | 40,6 | 22767 | 77 | Kuwait | 22,8 | 65531 | 116 | Ethiopia | 6,0 | 1730 |
| 39 | Poland | 40,6 | 27216 | 78 | Bosnia and Herzegovina | 21,4 | 11714 | | | | |

Legend: DPE INDEX: Digital Platform Economy index score; Light blue: European Union countries

The per capita GDP of the country in purchasing power parity, 2017 from the World Bank,

(<https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.KD>)

9.10 TOP 10 UNIVERSITIES THAT TEACH ENTREPRENEURSHIP IN UGANDA

1. Makerere University. Located in Kampala, Makerere University is one of Uganda's oldest and most prestigious universities. It offers comprehensive business and entrepreneurship programs at two locations.
 - a. Makerere University Business School (MUBS)
 - b. College of Business and Management Sciences (CoBAMS)
2. Mbarara University of Science and Technology (MUST) - Situated in Mbarara City, MUST strongly emphasises on science and technology, but has also offers robust business and entrepreneurship courses.
3. Kyambogo University - Based in the greater Kampala City, Kyambogo University provides various business-related degrees including on entrepreneurship.
4. Gulu University - Located in Gulu City, in the northern part of the country, this university offers business programs that incorporate entrepreneurship education.
5. Kampala International University (KIU) - Located in Kampala, KIU is popular for its Bachelor of Entrepreneurship and Small Business Management program.
6. Uganda Christian University (UCU) - Situated in Mukono District, which is adjacent to Kampala City, UCU offers business degrees with strong entrepreneurial components.
7. Uganda Martyrs University - This university, based in Kampala and offers diverse business programs, including entrepreneurship.
8. Busitema University - Located in Busitema, Busia District, Eastern Uganda, it offers a range of business programs with a focus on practical entrepreneurial skills.
9. Islamic University in Uganda - Based in Mbale, Easter Uganda, this university offers business and entrepreneurship programs that cater to a diverse student body.
10. Mountains of the Moon University - Situated in Fort Portal, Western Uganda, this university also offers business degrees with an entrepreneurial focus.

Note: This ranking is based on the synthesis of the full list of recognised tertiary institutions in Uganda Source: ministry of education, government of Uganda (based on reputation) (See Appendix 9.11)

9.11 FULL LIST OF RECOGNISED TERTIARY INSTITUTIONS IN UGANDA

Source: Ministry of Education, Government of Uganda, 2024

Url: <https://www.education.go.ug/wp-content/uploads/2019/08/List-of-Recognized-Universities-Other-Tertiary-Institutions-2016.pdf>

Date First Accessed: 27/08/2019

Date Last Accessed: 14/06/2024

PUBLIC UNIVERSITIES

| No | Institutions Name and Address |
|----|-------------------------------|
|----|-------------------------------|

- | | |
|---|--|
| 1 | Makerere University P.O. Box 7062, Kampala www.muk.ac.ug |
| 2 | Mbarara University of Science and Technology P.O. Box 1410, Mbarara www.must.ac.ug |
| 3 | Gulu University P.O. Box 166, Gulu www.gu.ac.ug/ |
| 4 | Kyambogo University P.O. Box 1, Kyambogo www.kyu.ac.ug |
| 5 | Busitema University P.O. Box 236, Tororo http://busitema.ac.ug/ |
| 6 | Muni University P.O.Box 725, Arua Email: ar@muni.ac.ug www.muni.ac.ug |
| 7 | Kabale University P.O. Box 317, Kabale, Kikungiri |
| 8 | Lira University Plot 1162, Ayere Barapwo P.O.Box 1035, Lira Tel: 0471660714 |
| 9 | Soroti University Plot 50 & 51 Arapai, P.O.Box 211, Soroti Tel: 0454461605 www.su.ac.ug |

PUBLIC UNIVERSITY COLLEGES

| No | Institution Name and Address |
|----|------------------------------|
|----|------------------------------|

- | | |
|---|--|
| 1 | Makerere University Business School P.O. Box 7062 Kampala, Uganda. Tel: +256-41- 32752/530231/5302232. Website: http://mak.ac.ug . Fax: +256 -41 533640/ 541068. |
| 2 | Makerere University College of Health Sciences P.O. Box 7062, Kampala http://chs.mak.ac.ug/ |
| 3 | Makerere University College of Agricultural and Environmental Sciences P.O. Box 7062, Kampala http://sas.mak.ac.ug/ |
| 4 | Makerere University College of Business and Management Science |

- P.O. Box 7062, Kampala
<http://bams.mak.ac.ug>
- 5 Makerere University College of Computing and Information Sciences
P.O. Box 7062, Kampala
<http://cis.mak.ac.ug>
- 6 Makerere University College of
Education and External Studies
P.O. Box 7062, Kampala
<http://cees.mak.ac.ug>
- 7 Makerere University College of Engineering, Design, Art & Technology
P.O. Box 7062, Kampala
<http://cedat.mak.ac.ug>
- 8 Makerere University
College of Humanities and
Social Sciences P.O. Box 7062,
Kampala
<http://chuss.mak.ac.ug>
- 9 Makerere University College of Natural Sciences
P.O. Box 7062, Kampala
<http://cns.mak.ac.ug>
- 10 Makerere University College of Veterinary Medicine, Animal Resources and
Biosecurity P.O. Box 7062, Kampala <http://vetmed.mak.ac.ug>

PUBLIC OTHER DEGREE AWARDING INSTITUTIONS

Uganda Management Institute
Jinja Road. P.O. Box 20131, Kampala www.umi.ac.ug/

PUBLIC OTHER DEGREE AWARDING INSTITUTION CAMPUS

Uganda Management Institute,
Mbarara Campus Plot 11-21 Kamukuzi Road
P.O. Box 20131, Kampala www.umi.ac.ug/

PRIVATE UNIVERSITY WITH THEIR OWN ACT OF PARLIAMENT

Islamic University in Uganda
P.O. Box 2555, Mbale www.iuiu.ac.ug/

PRIVATE CHARTERED UNIVERSITIES

- | No | Institutions Name and Address |
|----|--|
| 1 | Ndejje University P.O. Box 7088, Kampala www.ndejjeuniversity.ac.ug |
| 2 | Uganda Martyrs University |

- P.O. Box 5498, Kampala
<http://www.umu.ac.ug>
- 3 Bugema University
P.O. Box 6529, Kampala www.bugemauniv.ac.ug
 - 4 Nkumba University
P.O. Box 237, Entebbe, www.nkumbauniversity.ac.ug
 - 5 Uganda Christian University
P.O. Box 4, Mukono, www.ucu.ac.ug
 - 6 Kampala International University
P.O. Box 20000, Kampala, www.kiu.ac.ug/
 - 7 Bishop Stuart University
P.O. Box 9, Mbarara www.bsu.ac.ug/
 - 8 Kampala University
P.O. Box 25454, Kampala www.ku.ac.ug
 - 9 Mountains of the Moon University P.O. Box 837, Fort Portal, www.mmu.ac.ug
 - 10 Busoga University
P.O. Box 154, Iganga
www.busogauniversity.ac.ug/
 - 11 Aga Khan University
P.O. Box 8842, Kampala, www.aku.edu
 - 12 Kumi University
P.O. Box 178, Kumi, Ngero Campus
 - 13 African Bible University
P.O. Box 71242, Kampala,
<http://africanbiblecolleges.org/uganda/>
 - 14 Uganda Pentecostal University
P.O. Box 249, Fort Portal
<http://upu.ac.ug/>
 - 15 St. Lawrence University
P.O. Box 24930, Kampala www.stlawrenceuniversity.ac.ug
 - 16 Muteesa I Royal University P.O. Box 14002 <http://www.mru.ac.ug>
 - 17 All Saints University, Lango
P.O. Box 6, Lira, Boroboro Hill
www.asul.ac.ug/
 - 18 International Health Sciences
University
Plot 46/86 Kisugu, P.O. Box 8177, Kampala, www.ihsu.ac.ug/
 - 19 African Rural University P.O. Box 16523, Kampala, <http://aru.ac.ug/>
 - 20 Livingstone International University P.O. Box 994 Mbale, <http://livingstone.ac.ug>
 - 21 Cavendish University
Nsambya Plot 1469 Ggaba Road,
P.O Box 33145, Kampala www.cavendish.ac.ug/
 - 22 International University of East Africa 1112/1121, Ggaba Road in Kansanga. P.O.Box
35502, Kampala. www.iuea.ac.ug
 - 23 Victoria University

- Victoria Towers, 1-13 Jinja Rd, Kampala
<http://vu.ac.ug/>
- 24 St. Augustine International University
 P.O Box 26687, Kampala www.saiu.ac.ug
- 25 Virtual University of Uganda Plot 425 Muyenga , Zzimwe Road. P. O. Box 70773
 Kampala www.virtualuni.ac.ug
- 26 Uganda Technology And Management University (UTAMU)
 P.O Box 73307, Kampala
<http://utamu.ac.ug/>
- 27 Africa Renewal University P.O.Box 35138, Kampala
 Email : jatherstone@gmail.com www.africarenewaluniversity.org Tel:
 0776353606/0752702500
- 28 Nsaka University Plot No 925, Block 3
 P.O.Box 1801, Jinja
 Email isabirye.david@yahoo.com, nsakauniversity@gmail.com
- 29 Ibanda University
 Bubaare Cell, Ibanda town Council, Ibanda District.
 P.O. Box 35, Ibanda-Uganda. Tels:+256-414-694823
 Mob: 256-78-964494/+256-75-
 6644494
 E-mail: ibandauni2013@gmail.com
- 30 Team University
 P.O. Box 8128 Kampala www.teamibm.ac.ug
- 31 University of Kisubi Brothers
 P.O. Box 182, Entebbe www.kbuc.ac.ug
- 32 Valley University of Science & Technology
 Plot 131, Block 2, Nyaruzinga Road, Bushenyi District P.O. Box 44 Bushenyi.
 Tel: +256-382277576 / +256701223939, +256772646421 /
 +256-772406572
 Web: www.vust.ac.ug Email: info@vust.ac.ug,
valleyuniversityuganda@gmail.com
- 33 Staford University
 Plot 609-611 Kisugu, Zimwe Road
 Kampala
- 34 Kayiwa International University
 Plot 336, Balintuma Road
 P.O. Box 9096, Kampala
 Tel:0414-691720,
 Mobile: + 256 782 310 843
 E-mail: info@kintu.ac.ug
www.kintu.ac.ug
- 35 Great Lakes Regional University
 P.O Box 48, Kanungu Tel. 0700730928
- 36 International Science, Business & Technology (ISBAT) University
 11A Rotary Avenue (Lugogo By-Pass)
 PO Box 8383, Kampala

PRIVATE UNIVERSITY COLLEGES

Bishop Barham University College (Constituent College of Uganda Christian University). P.O. Box 613 <http://bbuc.ucu.ac.ug/>

ACCREDITED PRIVATE UNIVERSITY CAMPUSES

| No | Institutions Name and Address |
|----|-------------------------------|
|----|-------------------------------|

- | | |
|---|--|
| 1 | Kampala International University School of Health Sciences Mbarara - Bushenyi Rd, P.O.Box 256, Ishaka |
| 2 | Nile University Campus - Uganda Martyrs University, Arua P.O.Box 141, Arua www.nileuniversity.ac.ug |
| 3 | Uganda Christian University, Kampala Campus P.O.Box 4, Mukono Tel: 0312350800 Mob: 0794770826 Email: vc@ucu.ac.ug www.ucu.ac.ug |
| 4 | Uganda Christian University, Mbale Campus P.O.Box 4, Mukono Tel: 0312350800 Tel: +256454436222 Mob: 0794770826 Email: vc@ucu.ac.ug , Email: info@ucumbale.ac.ug www.ucu.ac.ug |
| 5 | Nkumba University, Kampala Campus Plot 773 & 774, Kabaka Anjagala Road-Mengo, Kampala |

PRIVATE OTHER DEGREE AWARDING INSTITUTION

| Institutions Name and Address |
|-------------------------------|
|-------------------------------|

- | | |
|---|---|
| 1 | ESLSCA International Business School Uganda Plot 10 Impala Avenue, Box 37207, Kampala http://uganda.eslsca.net/ |
| 2 | Ernest Cook Ultrasound Research & Education Institute (ECUREI) Mengo Hospital- Sir Albert Cook Building P.O.Box 7161, Kampala Email: ecurei@yahoo.com |
| 3 | Westminster Christian Institute Uganda P.O.BOX 21312 Kampala, Uganda, East Africa College Email: registrarwciu@gmail.com Phone: (+256) 414 696914 Email: wtsuoice@gmail.com Phone: (+256) 077 961 7553 |

- 4 Indian Institute of Hardware Technology (IIHT), Uganda
Afri-Courts Building, 2nd Floor, Plot 10 Buganda Road, Nakasero Ward, Kampala
Central Division, Kampala City
Box Number: 33017, Kampala
Tel: +256793958352/+25670248608
9/0312209300
Fax Number: None
Email: dmugarura@hotmail.com Website: www.iiht.com
- 5 Institute of Hospice and Palliative Care in Africa (IHPCA)
Plot 130 Makindye Road-Makindye
Box 7757, Kampala
Email: ar@hospiceafrica.or.ug Tel: +256 414268187
www.hospiceafrica.or.ug
- 6 Mulitech Business School
Plot 345, Kyaddondo Rd,
Kampala, P.O. Box
10923, Kampala
www.mulitech.co.ug/
- 7 YMCA Comprehensive Institute P.O.Box 2871, Kampala www.ymcakampala.org/

| |
|---|
| ACCREDITED OTHER DEGREE AWARDDING INSTITUTION CAMPUSES |
|---|

- | No | Institutions Name and Address |
|----|---|
| 1 | Mulitech Business School Kakiri Caampus P.O.Box 345, Kampala E-mail: inquiries@mulitech.co.ug Tel: 0756222515 www.mulitech.ac.ug |
| 2 | Mulitech Business School Hoima Campus P.O.Box 345, Kampala Tel: 0752379955 E-mail: inquiries@mulitech.co.ug www.mulitech.ac.ug |
| 3 | YMCA Comprehensive Institute Buwambo, Campus Block 80 Plot 139 P.O Box 2871, Kampala |

| |
|---|
| ACCREDITED PRIVATE OTHER TERTIARY INSTITUTIONS |
|---|

Commercial, Hotels, Social Development

- | No | Institutions Category, Name and Address |
|----|---|
| 1 | Pearl Crest Hospitality Training Institute Plot 23/29/31 Garuga Road, Ttende Estate, P.O.Box 29880, Kampala pearlcrest@utlonline.co.ug |
| 2 | Makerere Institute of Social Development Plot 807, Sir Apollo Kaggwa Road |
| 3 | Makerere Business Institute |

- Plot 489 Sir Apolo Kaggwa, P.O Box 10325 Kampala www.mbi.ac.ug
- 4 Management and Accountancy Training Co. Ltd
P.O. Box 10139, Industrial Area
www.matuganda.com
- 5 The College of Professional Development
P.O. Box 10139, Jinja Road
<http://cpd.ac.ug/>
- 6 Datamine Technical Business School Bat Valley Crescent
P.O. Box 16399, Kampala
- 7 Nyamitanga College of Business Studies. P.O. Box 150, Mbarara
- 8 African College of Commerce and Technology (Formerly African College of
Commerce, Kabale) P.O.Box 301, Kabale
- 9 Uganda Institute of Banking & Financial Services
P.O. Box 4986, Kampala uibfs.or.ug/
- 10 Nile Institute of Management Studies
P.O. Box 889, Arua
- 11 Ankole Western Institute of Science and Technology
P.O. Box 112, Kabwohe
- 12 Institute of Advanced Leadership, Uganda
P.O. Box 34001, Kampala www.ialuganda.ac.ug
- 13 Kabalega College, Masindi Plot 1 Block 6, Buruli LRV 49
- 14 APTECH Computer Education
Plot 22, Entebbe Rd, Box 28220, Kampala www.aptech-education.com
- 15 Mbarara Institute for Social
Development
P.o Box 793 Mbarara 590 Kasese Uganda Tel: 0755427388
Email:mbararaInstitute@yahoo.com Website:<http://mbararaInstitute.blogspot.com>
- 16 Zenith Business College
P.O. Box 27736 Nasser Rd, Kampala, Uganda www.zenithbusinesscollege.com
- 17 Makerere Business Training Centre Plot 1102, Kubiri, Bombo Rd
- 18 Jimmy Sekasi Business Institute Plot 4925 Block No 244 Kabalagala-Muzaana Zone
<http://jimmysekaliInstitute.com/>
- 19 Kampala International College
Plot 3 Rubaga Rd, Box 28321, Kampala
- 20 UMCAT School of Journalism and Mass Communication
Block 10, Plt 171 Mufunya Rd,
Namirembe-Bakuli P.O.Box 34939 Kampala <http://umcat.co.ug/>
- 21 Buganda Royal Institute of Business & Technical Training Education
Mengo Hill-Kla, Box 29599, Kampala
Email: registrar@bribte.com <http://www.bribte.com/>
- 22 Global Professional Solutions Colline House, Pilkington Rd, Kampala Box 7014
Kampala www.gps-hq.com
- 23 Islamic Call University College Plot 23/25 Old Kampala
- 24 YWCA Vocational Training Institute

- 1 & 3 George Street 2108, Kampala
P.O Box 2108, Kampala www.ywcaic.info/apvoctrn.htm
- 25 Rukungiri Institute of Management
P.O. Box 88, Rukungiri
- 26 East African Institute of Management Science
P.O Box 701 Gulu
- 27 Fountainhead Institute of Management & Technology (FIMAT)
P.O. Box 973, Lira
- 28 Al-Mustafa Islamic College Plot 5, Luthuli drive, Bugolobi P.O.Box 26175 Kampala
Email: info@aiuc.ac.ug Tel: +256414500078 www.aiuc.ac.ug
- 29 World Wide Training College P.O.Box 37120, Kampala, Uganda
- 30 Gulu Institute of Health Sciences, P.O. Box 430 Gulu <http://guluihs.com>
- 31
- 31 East African Professional Counselling Institute
Plot 771, Angi House, Makindye Division
- 32 Uganda Christian Institute for Professional Development Plot 36-40, Agwata Road
P.O. Box 254, Lira.
- 33 Caritas Counselling and Training Institute
Obiya East, Lacor Road, Bar Dege Division,
P.O. Box 261, Gulu
Email : counsellingprogram@gmail.com
- 34 Uganda Catholic Management and Training Institute
Plots 1123, 409, 502, 503 and 809, Rubaga
P.O. Box 14267, Kampala.
- 35 Makerere College of Business and Computer Studies
Block 5, Plot 342 Kagyera, Nothern Ward A
P.O.Box 153, Rukungiri
- 36 VTECH Academy (Formerly BCI-Wrox Academy)
Plot 54, Kampala Road, Damanico Building
P.O. Box 30902, Kampala
- 37 Makerere Metropolitan
Plot 439, Sir Apollo Kagwa road,
40m after Makerere hill road junction, Opposite Makerere university play ground
P.O. Box 11538, Kampala
E-mail:
makereremetropolitan@yahoo.co.uk
Website: www.mmmi.ac.ug
- 38 Engineering Management and Innovation Institute (EMI)
Plot 2069 Kasokoso Road, Kireka, Kampala, P.O. Box 23545 Kampala
info@emi.ac.ug www.emi.ac.ug
- 39 Monaco Institute of Business and Computer Science
Plot 595/15, Mbogo Road Kibuli,
P.O Box 26409 Kampala-Uganda
Email: info@monaco-technology.com / Website: www.monaco-technology.com
- 40 Nile Vocational Institute

- Plot 89-101 Buikwe Road P.O.Box 1829, Jinja -Njeru <http://nviuganda.org/>
- 41 Axial Internaional College
Plot 245, Tank Hill Rd, Muyenga P.O. Box 245, Kampala www.axial.co.ug/
- 42 Alliance Vocational School
Kitwe Cell, Kyaruhanga ward Ibanda P.O.Box 32, Ibanda
- 43 Namasuba College of Commerce
P.O.Box 9813, Kampala Email: ncc30@hotmail.com Tel: +256414272306
www.namasubacollege.com
- 44 International Institute of Business and Media Studies (IBBMS)
Jambula Zone, Bukesa Parish, Old Kampala
P.O.Box 30422, Kampala Email : iibmsu@yahoo.com
www.iibms.educ.ug.com 45
45 Management Institute of Science & Technology (MIST)
3Km Lira–Kitgum Road
Tel: +256778639777, +256703311151
- 46 East African School of Taxation
Conrad Plaza, Plot 22 Entebbe Road P.O.Box 34439, Kampala
- 47 Africa Population Institute
Plot 155, Block 5, Kyebando Road
P.O.Box 10842, Kampala
- 48 Meritorious Biz Tech College
Ham Towers, 4th Floor P.O.Box 923, Kampala Tel : +256776235423
- 49 St Benedict Technical College Kisubi
1 Km Of Entebbe Road P.O.Box 57 Kisubi
Email: stbenedict012@yahoo.com Tel: 0793292790
- 50 Maganjo Institute of Career Education 10 Km Bombo Road, Box 12346, Kampala
Tel: 0414566960/ 0772415205
<http://maganjoInstitute.com/>
- 51 Institute of Petroleum Studies, Kampala
Tank Hill Road Muyenga-Kisugu
Tel: 0414695610/0781059885
<http://ipsk.ac.ug/>
- 52 Techno Brain U Ltd
P.O Box: 33339 Kampala Telephone:+256-3122-63066 Fax: +256-4143-7078 E-mail: info.uganda@technobrainltd.com
Website: www.technobrainltd.com
- 53 Sai Pali Institute of Technology & Management
Box number: 75252, Kampala
Tel:+256-414-257534 Mob: 0754511990
Fax number:+256-414257534
E-mail:amit@saipaligroup.com Website:www.saipaligroup.com
- 54 Luigi Guissani Institute of Higher Education
Sentamu Jagenda Road Plot 828-829, Luzira
P.O. Box 40390, Kampala Phone: +256 0414 222513-7 Fax: +256 0414 222510
- 55 Development Studies Centre.

- Plot140A–148A Bulemba Road, Mbarara Municipality
P.O. Box 208 Mbarara
Tel: Mobile: 0772-665458
E-mail: aidts2005@yahoo.co.uk
- 56 African Ark College of Management Sciences (AACMS).
P.O. Box 590, Kasese,
Tel:+256-756-987602/
+256-7772-567567/
0756-987602/0774-155007 E-mail:
africanarkeasternuniversity@gmail.com
- 57 Universal Virtual Content Academy
P.O Box 22144, Kampala- Uganda Tel: +256414692359
Website: www.uvc.ug E-mail: info@uvc.ug
- 58 Institute of Accountants and Vocational School-Kyotera
P.O.Box 249, Kyotera
Tel: +256787108535/ +256712005319
Email: iavsinst@gmail.com
- 59 Insurance Institute of Uganda
P.O. Box 4184, Kampala
Tel: 0414 577169; 0772 410211
E-mail: info@iiu.ac.ug Website: www.iiu.ac.ug
- 60 Makland Institute of Business & Management
P.O. Box 29016 Kampala
Tel: +256-414693612 +256-787018264
- 61 Institute of Social Work & Community Development
Plot689,Namirembe–BalintumaRoadP.O.Box9706,Kampala
Tel: 0392961355
- 62 Salaama Vocaional Educaion Centre
P. O. Box 88, Lyantonde, Tel:+256 790 911 662 Website:www.svec.ac.ug
- 63 Global Institute of Information Technology & Business
4th Floor, Haruna Plaza, Bwaise Road,
Kampala, Uganda,
Tel: +256 (0)712 945 602,
+256 (0)702 516 354,
Email: info@giit.org
- 64 Destiny International Business Institute 2nd Floor, Bonaza building,
Plot 437 Sir. Albert Cook Rd,
Bakuli-Mengo, Kampala
P.O. Box 1014, Kampala
- 65 Institute of Management Science & Technology (IMSAT) Mbale
P. O. Box 12 Mbale , Tel: (045) 443-6019
- 66 Management &Development Training (MDTC Lira)
PO Box 157 Lira,
Kichope Village, Ober Parish, Ojwina
Division-Lira Municipality
- 67 Human Technical& Business College

- Plot 7-13, Cecilia Ogwal Road, Cathedral Village, Alito Camp Parish,
Ojwina Division-Lira Municipality
- 68 Hopenet training Centre UEB Village,
Church Road, Mulago ward II, Kawempe Division, Kampala
- 69 Labour College of East Africa (LCEA)
Plot 227, Sir Albert Cook Road, Mengo- Kampala
- 70 Kampala Institute of Vocational Training & Business studies (KIVTBS) Makindye
Kizungu zone, Along Luwafu- Salama Road
PO Box 12608, Kampala
- 71 Rubindi Vocaional Institute
Rubindi Town Council Mbarara-Ibanda Road
P.O. Box 1243, Mbarara
Tel: 0772-652502/ 0704-6525027/ 0706-123956
E-mail:rubindivocaionalinst@gmail.com

Bible/ Theological Colleges

- 1 Uganda Baptist Seminary
P.O. Box 1310, Jinja
www.ugandabaptistseminary.org
- 2 Kampala Evangelical School of Theology Makerere Hill Plot 81/84/P.O.Box 16704,
Kampala, Uganda
- 3 Uganda Bible Institute
P.O. Box 4 Mbarara
www.ugandabibleInstitute.org/
- 4 Uganda Martyrs Seminary, Namugongo
P.O. Box 31149 Kampala
- 5 Michelangelo College of Creave Arts
P.O.Box 7, Kisubi www.mccak.com info@mccak.com
- 6 African International Chrisian Ministry College of Science & Technology (AICM- CST)
Formerly (African International of Chrisian Ministry-Vocational Training College)
P.O.Box 459, Kabaale
- 7 Pentecostal Theological College, Mbale Box 149, Kampala
- 8 Reformed Theological College Bunamwaya, Box 11701, Kampala www.rtc.edu.au
- 9 African Chrisian Renewal College (Formerly Gaba Bible Institute) Buloba Mityana
Road P.O. Box 35138, Kampala www.arccuganda.org
- 10 All Naions Theological College and Seminary
Bwerenga (near Lake Victoria), 5km of KawukualongKampala–
Entebbe
- 11 Vision for Africa International Chrisian
College
MukonoDistrict,10kmofMukono–KayungaRoad.www.africanchrisiancollege.org
- 12 Glad Tidings Bible College Makerere Hill Road,
P. O. Box 2560, Kampala, Uganda. Email; gtbc@gladidingsbc.org Tel: +256-414 -
- 13 Yesu Akwagala Bible College

Postal Address: P.O. Box 4932, Kampala Email: yesuabc@gmail.com
Tel: +256787108535/+256712995319

- 14 Global Theological Seminary
Old Kakira Rd, Wairaka Kirra Jinja
Tel: 0772453999 / 0775199609
- 15 Word of Life Africa Bible Institute Plot 4374, Lumuli Kitende-Of Entebbe Road in
Wakiso District.
P.O. Box 29899, Kampala.
Tel: 0414-573328, Mob: 0753449342, 0772610932, 0782016669
E-mail: uganda@wol.org Website: www.woluganda.org
- 16 Covenant Bible Institute of Theology
& Seminary
P.O. Box 72 Mbale, Uganda

Agricultural Colleges

- 1 Kyera Agricultural College P.O. Box 1577 Mbarara
- 2 Mityana Agro-Vet Institute
P.O Box 183 Mityana
Tel: 0782841821/0772954662/0782
393889
E-mail: mityanaagrovetinstitute@gmail.com

Colleges of Health Sciences

- 1 Lijif International American Colleges of
Health Sciences
Plot 4344, Old Kiira Road, Ministers' Village, Ntinda, Kampala
Box Number: 234, Kampala
Tel: 0392962800/0776962800
Fax Number: 0414285994 Email: founder@lijif.org www.liiau.co
- 2 Kampala School of Health Sciences Plot 3, Rubaga Road,
Box 4551, Kampala
Tel: 0312100171/ 0700563464
- 3 Kabale Institute of Health Sciences
Plot 6A Bunigo Rd Kabale
- 4 Mildmay Uganda P.O.Box 24984, Entebbe www.mildmay.org
- 5 Medicare Health Professionals College Plot 975 Balintuma Rd,
P.O Box 16476, Kampala www.medicarecollege.com
- 6 Kampala Institute of Science &
Technology
P.O. Box 14274, Mengo Kampala.
Tel: 0712-271264/0779-837314/0312612046
E-mail: kistsecretary@gmail.com

Performing Arts, Music, and Design Colleges

- 1 Nagenda International Academy of Art and Design
P.O.Box 29341, Kampala
<http://niaadacademy.com>
- 2 Michelangelo College of Creative Arts
P.O.Box 7, Kisubi www.mccak.com info@mccak.com
- 3 Arfield Institute of Design Plot D Katalima Road, Naguru P.O.
Box 22095, Kampala www.arfieldInstitute.com
- 4 Africa Institute of Music
Plot 2407 Bukasa close, Zone A, Muyenga, P.O Box 23155, Kampala
Uganda e-mail: africamusicmaria@gmail.com Telephone:
0312282589/ 0772577748

Name Agricultural Colleges, Fisheries, Forestry and Wildlife Institutions

- 1) Bukalasa Agricultural College
- 2) Arapai Agricultural College
- 3) Fisheries Training Institute, Entebbe
- 4) Nyabyeya Forestry College, Masindi
- 5) Uganda Wildlife Training Institute, Kasese

Commercial, Hotels and Cooperatives Colleges

- 1) Uganda College of Commerce Aduku
- 2) Uganda College of Commerce Kabale
- 3) Uganda College of Commerce Pakwach
- 4) Uganda College of Commerce Soroti
- 5) Uganda College of Commerce Tororo
- 6) Uganda Cooperative College Kigumba
- 7) The Crested Crane Hotel and Tourism Training Centre
- 8) Management Training and Advisory Centre
- 9) Nsamizi Training Institute of Social Development
- 10) Makerere University Business School

Communication Technology

- 1) Uganda Institute of Information and Communications Technology

Medical Institutions

- 1) School of Hygiene, Mbale
- 2) School of Clinical Officers, Mbale
- 3) School of Clinical Officers, Gulu
- 4) School of Clinical Officers, Fort portal
- 5) Medical Laboratory Technician's School, Jinja
- 6) Butabika School of Psychiatric Clinical Officers
- 7) Masaka School of Comprehensive Nursing

- 8) Soroti School of Comprehensive Nursing
- 9) Ophthalmic Clinical Officers Training School
- 10) Health Tutors College Mulago
- 11) Public Health Nurses' College
- 12) Butabika Psychiatric Nursing School
- 13) Mulago School of Nursing and Midwifery
- 14) Jinja Nursing School
- 15) Jinja School of Nursing and Midwifery
- 16) Mulago School of Dispensing /Pharmacy
- 17) Mulago School of Radiography
- 18) Mulago School of Physiotherapy
- 19) Mulago School of Occupational Therapy
- 20) Mulago Medical Laboratory School
- 21) Mulago Paramedical Training Schools

National Teachers College

- 1) National Teachers College, Mubende
- 2) National Teachers College, Kaliro
- 3) National Teachers College, Kabale
- 4) National Teachers College, Unyama
- 5) National Teachers College, Muni

Technical College, Meteorological and Survey Institutions

- 1) Uganda Technical College, Elgon
- 2) Uganda Technical College, Lira
- 3) Uganda Technical College, Bushenyi
- 4) Uganda Technical College, Kicwamba
- 5) Uganda Technical College, Kyema, Masindi
- 6) National Meteorological Training School
- 7) Institute of Survey and Land Management

Aeronautical

- 1) East African School of Aviation, Soroti

Military Training Institutions

- 1) Non-commissioned Officer academy
- 2) Junior staff college, Jinja
- 3) Senior Command and Staff college, Jinja
- 4) Uganda Military Academy, Kabamba

9.12 PARTICIPANT: INVITATION AND INFORMATION SHEET



Dennis Aguma
PhD Student,
Faculty of Business, Law and Social Sciences
Birmingham City Business School,
Birmingham City University
The Curzon Building, 4 Cardigan Street,
Birmingham. B4 7BD
Email: [REDACTED]
Web: www.bcu.ac.uk

PARTICIPANT: INVITATION AND INFORMATION SHEET

My name is Dennis Aguma. I am a PhD student in the department of management at Birmingham City University (UK). This is to invite you to participate in my study, which is exploring the effect of entrepreneurship ecosystems on the effectiveness of different methods of entrepreneurship education. My research is being undertaken under the supervision of Dr. Susan Sisay and Dr. Charlotte Carey.

(1) What will the study involve for me?

The main study will take place at Birmingham City University (UK) and Makerere University Business School (MUBS). We are looking to collect data from business managers, lecturers teaching on an entrepreneurship related module, as well as 1st year and 3rd year students taking an entrepreneurship module. Students will be guided and asked to evaluate the extent to which they feel entrepreneurial, as well as their thoughts on different education methods.

(2) How much of my time will the study take?

This study involves online surveys and slots of 30-60 minutes of one-to-one interviews, either of which will take place in a mutually convenient and safe location, most likely Birmingham City University (for UK students and Lecturers) or Makerere University (For Makerere University students and Lecturers).

(3) Do I have to be in the study? Can I withdraw from the study once I've started?

Being in this study is completely voluntary and you do not have to take part. Your decision whether to participate will not affect your current or future relationship with the researchers or anyone else at the University.

If you decide to take part in the study and then change your mind later, you will be free to withdraw at any time. You can do this by sending an email to @mail.bcu.ac.uk.

INTERVIEWS: You are free to stop the interview at any time. Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study results. You may also refuse to answer any questions that you do not wish to answer during the interview. If you decide at a later time to withdraw from the study your information will be removed from our records and will not be included in any results, up to the point we have analysed and published the results.

(4) Are there any risks or costs associated with being in the study?

Aside from giving up your time, we do not expect that there will be any risks or costs associated with taking part in this study.

(5) What will happen to information about me that is collected during the study?

With your consent, interviews will be audio-recorded. Care will be taken to protect your identity. This will be done by keeping all responses anonymous and allowing you to request that certain responses not be included in the final project. Once the recording has been transcribed, the audio-recording will be destroyed in line with the 2018 General Data Protection Regulation Act and Birmingham City University's Research and Data Management Policies.

You will have the right to end your participation in the study at any time, for any reason, up until 30th December 2019. If you choose to withdraw, all the information you have provided will be destroyed.

All research data, including audio-recordings and any notes will be encrypted or kept in a locked cabinet at Birmingham City University. Research data will only be accessible by the researcher and the research supervisors.

Your information will be stored securely and your identity/information will be kept strictly confidential, except as required by law. Study findings may be published, but you will not be identified in these publications if you decide to participate in this study. In this instance, data will be stored for a period of 10 years and then destroyed.

By providing your consent, you are agreeing to us collecting personal information about you for the purposes of this research study. Your information will only be used for the purposes outlined in this Participant Information Statement, unless you consent otherwise. Data management will follow the 2018 General Data Protection Regulation Act and Birmingham City University's Research and Data Management Policies.

(6) What if I would like further information about the study?

When you have read this information, I (Dennis Aguma) will be available during and shortly after the study to discuss it with you further and answer any questions you may have. If you would like to know more at any stage during the study, please feel free to contact _____@mail.bcu.ac.uk.

(7) Will I be told the results of the study?

You have a right to receive feedback about the overall results of this study. You can tell us that you wish to receive feedback by emailing _____@mail.bcu.ac.uk. This feedback will be in the form of a one paragraph summary of the findings and would be available after the full findings have been published, sometime in 2021.

(8) Ethics: What if I have a complaint or any concerns about the study?

This research has received no external funding. The ethical aspects of this study have been approved under the regulations of Birmingham City University's Research Ethics Committee. If there is a problem please let me know. However, if you are concerned about the way this study is being conducted or you wish to make a complaint to someone independent from the study, please contact _____@bcu.ac.uk

(9) OK, I want to take part – what do I do next?

Please follow the appropriate link to complete the survey.

- **Students' survey** - https://blss.eu.qualtrics.com/jfe/form/SV_cVlrGxY8HihZaRL
- **Lecturers' survey** - https://blss.eu.qualtrics.com/jfe/form/SV_dcnkZlqZnj7qeBD

This information sheet is for you to keep

9.13 STUDENT SURVEY QUESTIONS



BIRMINGHAM CITY
University

Dennis Aguma
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**Exploring the impact of entrepreneurship ecosystems on the choice and effectiveness
various methods of entrepreneurship education.**

STUDENT SURVEY

The research is being carried out by myself, Dennis Aguma. I am a PhD student at Birmingham City University, UK. You have been invited to participate in this study because you are a student studying entrepreneurship or an entrepreneurship related [REDACTED] please complete this survey and return it to the person that has handed it to you, or email it to [REDACTED]@bcu.ac.uk

(10) Name: (please make up a pseudonym for identification – this will be the first 2 initials of your first name, last two letters of your year of birth)

.....

(11) Age: What is your age? (tick the appropriate category)

- a. 18-24 years old
- b. 25-34 years old
- c. 35-44 years old
- d. 45-54 years old
- e. 55-64 years old
- f. 65-74 years old
- g. 75 years or older

(12) Gender (tick the appropriate category)

- a. Male
- b. Female
- c. Prefer not to say
- d. Other

(13) Ethic Orientation

- a. Asian / Asian British
 - i. Indian

- ii. Pakistani
- iii. Bangladeshi
- iv. Chinese
- v. Any other Asian background
- b. Black / African / Caribbean / Black British**
 - i. African
 - ii. Caribbean
 - iii. Any other Black / African / Caribbean background
- c. White**
 - i. English / Welsh / Scottish / Northern Irish / British
 - ii. Irish
 - iii. Gypsy or Irish Traveller
 - iv. Any other White background
- d. Mixed / Multiple ethnic groups**
 - i. White and Black Caribbean
 - ii. White and Black African
 - iii. White and Asian
 - iv. Any other Mixed / Multiple ethnic background
- e. Other ethnic group**
 - i. Arab
 - ii. Any other ethnic group

(14) Mode of study

- a. Fulltime
- b. Part-time

(15) Year of study

- a. First year
- b. Second Year
- c. Third Year

(16) On a scale of 1 – 10, to what extent do you think you poses the following skills, 1 being the lowest and 10 the highest?

| Entrepreneurial Skills | 1-10 |
|---|-------------|
| Creativity and innovation | |
| Opportunity recognition, creation and evaluation | |
| Decision making supported by critical analysis, synthesis and judgement | |
| Implementation of ideas through leadership and management | |
| Action and reflection | |
| Communication and strategy skills | |
| Digital and Data Skills | |

(17) Please acquaint yourself with the following terminologies and then answer the question below.

- **Curricular:** In class activities that focus mainly on delivering entrepreneurship skills in an academic setting. I.e. Learning about Business Plans, with the expectation of doing one as part of your assignment.
- **Co-Curricular:** Activities that complement, in some way, what you learn in class. I.e. starting a business as part of your assignment.
- **Intra-curricular:** In class activities other than those in the educational curriculum. I.e. attending a speech, in class, by a successful entrepreneur.
- **Extracurricular:** Non-academic activities that are not a required part of the curriculum, do not involve academic credit, and participation is optional. I.e. being a member of the debating club or entrepreneur Society.

| Question: On a scale of 1 – 10, to what extend do you think that either of these methods has contributed to your acquisition of the following entrepreneurship skills | | | | |
|--|--|----------------------|-------------------------|-------------------------|
| Entrepreneurial Skills | Effectiveness of learning method (1-10) | | | |
| | Curricular | Co-Curricular | Intra-curricular | Extra-curricular |
| Creativity and innovation | | | | |
| Opportunity recognition, creation and evaluation | | | | |
| Decision making supported by critical analysis, synthesis and judgement | | | | |
| Implementation of ideas through leadership and management | | | | |
| Action and reflection | | | | |
| Communication and strategy skills | | | | |
| Digital and Data Skills | | | | |

Note: After the pilot study, extracurricular methods were abandoned due to the confusion they caused and the excessive number of research variables involved

9.14 LECTURERS SURVEY QUESTIONS



BIRMINGHAM CITY
University

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**Exploring the impact of entrepreneurship ecosystems on the choice and effectiveness
various methods of entrepreneurship education.**

LECTURERS' SURVEY

The research is being carried out by myself, Dennis Aguma. I am a PhD student at Birmingham City University, UK. You have been invited to participate in this study because you are a lecturer teaching entrepreneurship or an entrepreneurship re[REDACTED]. Please complete this survey and return it to the person that has handed it to you, or email it to [REDACTED]@bcu.ac.uk.

(18) Name: (please make up a pseudonym for identification – this will be the first 2 initials of your first name, last two letters of your year of birth)

.....

(19) What is your age? (tick the appropriate category)

- a. 25-34 years old
- b. 35-44 years old
- c. 45-54 years old
- d. 55-64 years old
- e. 65-74 years old
- f. 75 years or older

(20) Gender (tick the appropriate category)

- a. Male
- b. Female
- c. Prefer not to say
- d. Other

(21) Mode of teaching

- a. Fulltime
- b. Part-time

(22) Which year do you teach?

- a. First year
- b. Second Year
- c. Third Year

(23) On a scale of 1 – 7, to what extent do you think that your students poses the following skills, 1 being the lowest and 10 the highest?

| Entrepreneurial Skills | 1-7 |
|---|------------|
| Creativity and innovation | |
| Opportunity recognition, creation and evaluation | |
| Decision making supported by critical analysis, synthesis and judgement | |
| Implementation of ideas through leadership and management | |
| Action and reflection | |
| Communication and strategy skills | |
| Digital and Data Skills | |

(6 – 9 Please acquaint yourself with the following terminologies and then answer the following two questions

- **Curricular:** In class activities that focus mainly on delivering entrepreneurship skills in an academic setting. I.e. Learning about Business Plans, with the expectation of doing one as part of your assignment.
- **Co-Curricular:** Activities that complement, in some way, what you learn in class. I.e. starting a business as part of your assignment.
- **Extracurricular:** Non-academic activities that are not a required part of the curriculum, do not involve academic credit, and participation is optional. I.e. being a member of the debating club or entrepreneur Society.

Question: (6)

**On a scale of 1 – 7, how frequently do you use the following EE methods to equip students with entrepreneurship skills?
1 being least frequently, and 7 being most frequently.**

| EE Method | Scale (1 – 7) |
|--------------------|----------------------|
| Curricular | |
| Co – Curricular | |
| Extra – Curricular | |

Question: (7)

To what extent is the above choice influenced by the university's teaching policy and guidelines.

1 being least influenced by, and 7 being most influenced by.

| EE Method | Scale (1 – 7) |
|--------------------|----------------------|
| Curricular | |
| Co – Curricular | |
| Extra – Curricular | |

Question: (8)

Based on your teaching experience, to what extent do you think each of the following EE methods has been effective in equipping students with entrepreneurship skills?

1 being the least effective, and 7 being the most effective

| Entrepreneurial Skills | Effectiveness of learning method (1-7) | | |
|---|---|----------------------|-------------------------|
| | Curricular | Co-Curricular | Extra-curricular |
| Creativity and innovation | | | |
| Opportunity recognition, creation and evaluation | | | |
| Decision making supported by critical analysis, synthesis and judgement | | | |
| Implementation of ideas through leadership and management | | | |
| Action and reflection | | | |
| Communication and strategy skills | | | |
| Digital and Data Skills | | | |

Question: (9)

To what extent does the university accord you the flexibility to use either of the following EE methods to equip students with entrepreneurship skills or deliver your academic content?

1 being least flexible, and 7 being most flexible.

| EE Method | Scale (1 – 7) |
|--------------------|----------------------|
| Curricular | |
| Co – Curricular | |
| Extra – Curricular | |
| | |

(10) If you had the flexibility, would you change the current teaching methods on the entrepreneurship module?

- a. Yes
- b. No

(11) If you answered yes above, what methods would you most employ to equip students with the above entrepreneurship skills, and why?

.....

.....

.....

(12 -13) Part of this research aims to explore the extent to which what happens in the wider entrepreneurship environment / ecosystem affects your choice of content and teaching methods of entrepreneurship education.

Question: (12)

On a scale of 1-10, to what extent do each of these aspects have an effect on the entrepreneurial mind-set of students in your class?

1 being least impactful, and 7 being most impactful.

| Ecosystem aspect | Scale (1 – 7) |
|--|----------------------|
| Culture – typically of students | |
| Human Capital – i.e. skills of lecturers | |
| Policy – typically government policy, and other regulatory challenges | |
| Finance – the extent to which your students have access to start-up finance | |
| The robustness of markets – the extent to which it is easy to acquire early customers or create and access networks. | |
| Supports – all other aspects that support the entrepreneur, such as infrastructure, NGOs, professional organisations such as the chamber of commerce | |

Question: (13)

On a scale of 1-7, to what extent do each of these aspects have an effect on your Entrepreneurship Education curriculum design i.e. choice of content and teaching methods of entrepreneurship education.

| 1 being least impactful, and 7 being most impactful. | |
|--|---------------|
| EE Method | Scale (1 – 7) |
| Culture – typically of students | |
| Human Capital – i.e. skills of lecturers | |
| Policy – typically government policy, and other regulatory challenges | |
| Finance – the extent to which your students have access to start-up finance | |
| The robustness of markets – the extent to which it is easy to acquire early customers or create and access networks. | |
| Supports – all other aspects that support the entrepreneur, such as infrastructure, NGOs, professional organisations such as the chamber of commerce | |

9.15 LECTURERS FOCUS GROUP QUESTIONNAIRE



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Mediating effects of entrepreneurship ecosystems, on the choice and effectiveness of entrepreneurship pedagogical approaches: A comparative study between Uganda and United Kingdom

My name is Dennis Aguma.

I am a PhD student. I am working on a research project under the supervision of Dr. Susan Sisay and Dr. Charlotte Carey both in the Department of Management at Birmingham City University (UK).

My study is exploring the effect of entrepreneurship ecosystems on the effectiveness of different methods of entrepreneurship education.

You have been invited to participate in this study because you teach on entrepreneurship or an entrepreneurship related module.

Participation in this research study is voluntary.

The main study will take place at Birmingham City University (UK) and Makerere University College and Makerere University Business School (MUBS).

We are looking to collect data from business managers, lecturers teaching on an entrepreneurship related module, as well as 1st year, 2nd year and 3rd year students taking an entrepreneurship module.

Duration: About 60 minutes.

You can I withdraw from the interview at any time.

Data Protection: Unless you say that you want us to keep them, any recordings will be erased and the information you have provided will not be included in the study results.

Care will be taken to protect your identity. This will be done by keeping all responses anonymous and allowing you to request that certain responses not be included in the final project.

Interviews, with your consent, will be audio-recorded. Once the recording has been transcribed, the audio-recording will be destroyed in line with the 2018 General Data Protection Regulation Act and Birmingham City University's Research and Data Management Policies.

Ethics: The ethical aspects of this study have been approved under the regulations of Birmingham City University's Research Ethics Committee and okayed by Dr Abaho.

ANY QUESTIONS?

Profile

- Gender
- subjects taught
- year of study taught
- full time or part time
- Years of teaching experience
- At same university?

(24) What is your understanding of entrepreneurship skills?

(25) Do you recognise these as entrepreneurship skills?

| Entrepreneurial Skills |
|---|
| Creativity and innovation |
| Opportunity recognition, creation and evaluation |
| Decision making supported by critical analysis, synthesis and judgement |
| Implementation of ideas through leadership and management |
| Action and reflection |
| Communication and strategy skills |
| Digital and Data Skills |

(26) What other skills do you feel are missing from the above list?

(27) As a university, out of 100% of the student contact time, what percentage is devoted to each of the methods below in equipping students with entrepreneurship skills?

- **Curricular:** In class activities that focus mainly on delivering entrepreneurship skills in an academic setting. I.e. Learning about Business Plans, with the expectation of doing one as part of your assignment.
- **Co-Curricular:** Activities that complement, in some way, what you learn in class. I.e. starting a business as part of your assignment.
- **Extracurricular:** Non-academic activities that are not a required part of the curriculum, do not involve academic credit, and participation is optional. I.e. being a member of the debating club or entrepreneur Society.

(28) Based on your teaching experience, which of the above methods do you think is most effective and why? (short term and long term)

(29) To what extent is the above choice influenced by the university's teaching policy and guidelines? Any examples?

(30) On a scale of 1 – 7, to what extent do you think that BCU students are entrepreneurial, 1 being the lowest and 7 the highest?

(31) Relative to other universities how do BCU students compare in entrepreneurship skills? Justify your answer.

(32) What do you think is the industry's view of your students' entrepreneurship skills? BCU students as well as other institutions.

(33) Research by CBI (UK) suggests a mismatch between graduates' skills and industry's expectations. Do you recognise this mismatch?

(34) If you agree, what do you think is causing the mismatch? Why aren't universities bridging the gap fast enough?

(35) If you had the flexibility, would you change the current teaching methods on the entrepreneurship module to bridge this gap? And if so, what would you actually change?

(36) **CONTEXT:** Part of this research aims to explore the extent to which what happens in the wider entrepreneurship environment / ecosystem affects your choice of content and teaching methods of entrepreneurship education. I'm using the entrepreneurship ecosystem as defined

by Isenberg to include the following. Please familiarise yourself with it the ecosystem chart *(give out one)*.

(37) To what extent do you think ecosystem factors, COLLECTIVELY and without being specific, affect the students' entrepreneurial mindset and skills before they arrive at university?

(38) To what extent do you think EACH of these ecosystem factors affect the students' entrepreneurial mindset and skills BEFORE they arrive at university?

- (a)** Culture – are there observations that this research ought to capture?
- (b)** Human Capital – items in yellow.
- (c)** Policy – typically government policy, and other regulatory challenges
- (d)** Finance – the extent to which your students have access to start-up finance
- (e)** The robustness of markets – networks and the extent to which it is easy to acquire early customers or create and access networks.
- (f)** Supports – all other aspects that support the entrepreneur, such as infrastructure, NGOs, professional organisations, etc

(39) Do you think these continue to affect the students' entrepreneurship skills while they are at university? And if so, how?

(40) On a scale of 1-7, to what extent do each of these aspects influence your Entrepreneurship Education curriculum design i.e. choice of content and teaching methods of entrepreneurship education.

(41) With regards to aspects of the ecosystem, have there been any significant observable changes over the years to suggest that the impact of the ecosystem on the students' entrepreneurial skills will change in the future?

(42) If so, which aspects of the ecosystem do you envisage changing more than the others?

(43) Are there any aspects of entrepreneurship education & entrepreneurship skills, particularly those that might have a local significance that you feel have been missed in the above questions?

THE END:

Thank You!

9.16 EVIDENCE OF QUALTRICS AS A DATA COLLECTION TOOL

- a) An example of the original Qualtrics surveys, which confirmed the research questions and included a request for participant consent.

NOTE: Access to Qualtrics has been disabled by BCU, making all live questionnaires and collected data inaccessible as of 09/09/2024. Users were instructed to download their data or switch to QuestionPro, which provides similar features. Since the data was already collected, the researcher opted to download it and take no further steps. Below is an example of the online questionnaires as of 09/09/2024.

09/09/2024, 11:31

Student survey



https://biss.eu.qualtrics.com/jfe/form/SV_cvInGxY8HlnZaRL

1/12

Q1.

This research is being carried out by myself, Dennis Aguma.

I am a PhD student at Birmingham City University (UK), and can be contacted via the following email address:

@mail.bcu.ac.uk

You have been invited to participate in this study because you are a student studying entrepreneurship or an entrepreneurship related module. The study is exploring effectiveness of different methods of entrepreneurship education in achieving entrepreneurship skills in various entrepreneurship ecosystems.

You will have received a Participant Information Statement which tells you about the research study. Knowing what is involved will help you decide if you want to take part in the study.

Participation in this research study is voluntary and you do not have to take part. Your decision whether to be in the study will not affect your relationship with the researcher or anyone else at participating institutions, now or in the future.


In giving your consent to take part in this study, you are telling us that you:

- ☐ You have received a copy of the Participant Information Statement.
- ☐ Understand what you have read.
- ☐ You agree to take part in the research study as outlined below.
- You agree to the use of your personal information as described.
- ☐ You understand that personal information about you that is

https://biss.eu.qualtrics.com/jfe/form/SV_cVnGxY8HlnZaRL

3/12

You understand that personal information about you that is collected over the course of this project will be stored securely and will only be used for purposes that you have agreed to. You understand that information about you will only be told to others with your permission, except as required by law.

 You understand that the results of this study may be published, but these publications will not contain your name or any identifiable information about you.

Do you consent?

YES



NO



Consent was obtained through an online checkbox that participants had to select before proceeding with the survey, ensuring no one could continue without granting consent.

As Qualtrics access has since been disabled by BCU, there is no separate evidence of consent. However, no participant declined consent, and all collected data was based on consent being granted.

Q2.

Name: *(please make up a pseudonym for identification – this will be the first 2 initials of your first name, last two numbers of your year of birth)*

Q3.

Age: What is your age? (Please chose *the appropriate category*)

| | |
|--------------------|-----------------------|
| Below 18 years | <input type="radio"/> |
| 18-21 years | <input type="radio"/> |
| 22-25 years | <input type="radio"/> |
| 26-29 years | <input type="radio"/> |
| 30 and above years | <input type="radio"/> |

Q4.

Gender: (Please chose *the appropriate category*)

| | |
|-------------------|-----------------------|
| Male | <input type="radio"/> |
| Female | <input type="radio"/> |
| Other | <input type="radio"/> |
| Prefer not to say | <input type="radio"/> |

Q5.

Ethic Orientation

| | |
|---|-----------------------|
| Asian / Asian British | <input type="radio"/> |
| Black / African / Caribbean / Black British | <input type="radio"/> |
| White | <input type="radio"/> |
| Mixed / Multiple Ethnic Group | <input type="radio"/> |

Q6. Region of birth / origin

| | |
|-----------------|-----------------------|
| Western Region | <input type="radio"/> |
| Eastern Region | <input type="radio"/> |
| Northern Region | <input type="radio"/> |
| Southern | <input type="radio"/> |
| Central Region | <input type="radio"/> |

Other / International student

☐

Q7. Academic Institution

Birmingham City University (BCU)

☐

Makerere University Business School (MUBS)

☐

Makerere University College of Business and Management Sciences (CoBAMS)

☐

Other:

☐

Q8. Year of study

1st Year

☐

2nd Year

☐

3rd Year

☐

Q9. Mode of study

Fulltime

☐

Part time - day

☐

Part time - evening / weekend

☐**Q10. Course**

Accounting and Finance

☐

Marketing

☐

Business, Business Management or Business Economics

☐

Entrepreneurship

☐

Economics

☐



Q11.

On a scale of 1 – 7, to what extent do you think you poses the following skills?

(1 being the lowest and 7 the highest)

0 1 2 3 4 5 6 7

Creativity and innovation



Opportunity recognition, creation and evaluation



Decision making supported by critical analysis, synthesis and judgement



Implementation of ideas through leadership and management

09/09/2024, 11:31

Student survey



Action and reflection



Communication and strategy skills



Digital and Data Skills



https://bliss.eu.qualtrics.com/jfe/form/SV_cVlnGxY8HlhZaRL

10/12

Q12.

Please acquaint yourself with the following terminologies and then answer the question below.

- **Curricular:** In class activities that focus mainly on delivering entrepreneurship skills in an academic setting. I.e. Learning about Business Plans, with the expectation of doing one as part of your assignment.
- **Co-Curricular:** Activities that complement, in some way, what you learn in class. I.e. starting a business as part of your assignment, or attending a speech, in class, by a successful entrepreneur.
- **Extracurricular:** Non-academic activities that are not a required part of the curriculum, do not involve academic credit, and participation is optional. I.e. being a member of the debating club or entrepreneur Society.

Question: On a scale of 1 – 7, to what extent do you think that each of these entrepreneurship education methods has contributed to your acquisition of the following entrepreneurship skills?

(1 being the lowest and 7 the highest)

| | Curricular | Co-Curricular | Extra-curricular |
|--|----------------------|----------------------|----------------------|
| Creativity and innovation | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Opportunity recognition, creation and evaluation | <input type="text"/> | <input type="text"/> | <input type="text"/> |


09/09/2024, 11:31

Student survey

| | Curricular | Co-Curricular | Extra-curricular |
|---|--------------------------|--------------------------|--------------------------|
| Decision making supported by critical analysis, synthesis and judgement | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Implementation of ideas through leadership and management | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Action and reflection | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Communication and strategy skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Digital and Data Skills | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Q13. Email Address:

(Optional - should it be necessary to contact you for clarification)

Powered by Qualtrics 

https://biss.eu.qualtrics.com/jfe/form/SV_cVrGxY8HlnZaRL

12/12

CORRESPONDENCES REGARDING AUTHORISATION AND USE OF QUALTRICS

a) Approval for the uses of Qualtrics

09/09/2024, 11:55

Re: Qualtrics Account / Log In - Dennis Aguma - Outlook

Re: Qualtrics Account / Log In

Dennis Aguma <[redacted]@mail.bcu.ac.uk>

Wed 28/08/2019 15:33

To: Susan Sisay <Susan.Sisay@bcu.ac.uk>

Cc: BLSS Doctoral Research College <blssdoctoralresearchcollege@bcu.ac.uk>; Charlotte Carey <Charlotte.Carey@bcu.ac.uk>

Thank you for the confirmation Susan. I'll wait for your feedback regarding Qualtrics.

Kind regards,

Dennis

Dennis Aguma

PhD Researcher (Entrepreneurship)

[redacted]

Information in this email and any attachments are confidential, and may not be copied or used by anyone other than the addressee, nor disclosed to any third party without our permission.

On 28 Aug 2019, at 15:31, Susan Sisay <[redacted]@bcu.ac.uk> wrote:

Hi Lovain

I confirm that Dennis is currently undertaking a pilot study for his research programme. Whilst away, he has been in regular contact with his supervisory team, updating us on his progress.

Dennis

I think Qualtrics login account is handled by a colleague within the Business School. Hold off contacting IT until I have confirmed this with him.

Best Wishes

Susan

From: Dennis Aguma

Sent: 28 August 2019 12:44

To: BLSS Doctoral Research College <[redacted]@bcu.ac.uk>

Cc: Susan Sisay <[redacted]@bcu.ac.uk>; Charlotte Carey <[redacted]@bcu.ac.uk>

Subject: Re: Qualtrics Account / Log In

Hi Lovain,

Thanks for your confirmation. I will be sure to notify the DCR office next time.

I left on the 1st of August and will return on the 3rd September.

Since i came, I have been engaged in activities aimed at creating networks and building relationships for both my pilot study and subsequent data collection. So although my trip has engagements that, on the face of it, don't appear to be directly related to my data collection, i would classify them, and my trip, as research related and as opposed to holiday.

Thanks for the information regarding Qualtrics. I will liaise with IT.

Kind regards,

Dennis

Dennis Aguma

about:blank

1/4 +

09/09/2024, 11:55

Re: Qualtrics Account / Log In - Dennis Aguma - Outlook

Visiting Lecturer / PhD Researcher (Entrepreneurship)

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On 28 Aug 2019, at 10:09, BLSS Doctoral Research College

[redacted] <[redacted]@bcu.ac.uk> wrote:

Hi Dennis

We in the DRC do need to know when you are travelling just so we can record it, please let me know when you left and when you are returning and if it is all research related or if some of it is from your Annual Leave.

I've never come across this request before so I would advise you contact IT and see what they say.

Thanks.

Lovain.

From: Dennis Aguma <[redacted]@mail.bcu.ac.uk>

Sent: 28 August 2019 05:25

To: BLSS Doctoral Research College <[redacted]@bcu.ac.uk>

Cc: Susan Sisay <[redacted]@bcu.ac.uk>; Charlotte Carey

<[redacted]@bcu.ac.uk>

Subject: RE: Qualtrics Account / Log In

Good morning,

Yes, my supervisors are aware of my ongoing data collection.

As I am footing the bill for my trip, I didn't think it was necessary to complete any paperwork. Please advise if my understanding was correct.

Qualtrics is a tool used by most colleagues to collect data. Daniel or Jay should be able to explain, but apparently, a student account needs to be set up, and colleagues suggested you might be able to help.

With thanks,
Dennis Aguma

PhD Researcher

T: [redacted] 2

[uk.linkedin.com/in/\[redacted\]](#)

Sent via #Smartphone

about:blank

2/4

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On 27 Aug 2019 16:25, BLSS Doctoral Research College

<[redacted]@bcu.ac.uk> wrote:

Dear Dennis

Firstly, please could you confirm if we have been made aware that you are currently overseas for Research Purposes as I can't see anything on our records?

What is Qualtrics and is there a cost for it? If so then you will need to complete the attached application for funds, if there isn't a cost and it is an IT thing then I would advise you contact the IT Helpdesk.

Kind regards

Lovain Hynes
Doctoral Research College Officer - BLSS
Research Office
Research Innovation and Enterprise
Birmingham City University
Curzon 207, City Centre Campus
4 Cardigan Street
Birmingham
B4 7BD
T: 0121 331 7721


My working days are Monday - Thursday


Visit our new

[PGR Information](#) pages in iCity.

Going through a tough time? Click below to engage with a free online support service:
Big White Wall.

Available 24/7 for staff, students and graduates of BCU; all comments are anonymous.

 [big-white-wall-logo](#)

 BCU 175 E-mail Signature

From: Dennis Aguma <[redacted]@mail.bcu.ac.uk>

Sent: 27 August 2019 09:09

To: BLSS Doctoral Research College <[redacted]@bcu.ac.uk>

Cc: Faheemah Akther <[redacted]@bcu.ac.uk>; Susan Sisay

<[redacted]@bcu.ac.uk>; Charlotte Carey <[redacted]@bcu.ac.uk>

Subject: Qualtrics Account / Log In

Importance: High

Hi Team,

To: BLSS Doctoral Research College <b[redacted]@bcu.ac.uk>
Cc: Faheemah Akther <f[redacted]ar@bcu.ac.uk>; Susan Sisay
<s[redacted]u.ac.uk>; Charlotte Carey <c[redacted]@bcu.ac.uk>
Subject: Qualtrics Account / Log In
Importance: High

Hi Team,

about:blank

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09/09/2024, 11:55

Re: Qualtrics Account / Log In - Dennis Aguma - Outlook

I'm in Uganda doing my pilot study / data collection. Early returns of my surveys suggest i need to a tool such as use Qualtrics, lest i struggle with data collection and analysis.

Please could you kindly, but urgently, set up an account for me to use.
Your quick turn around would be very much appreciated.

With thanks!

Dennis B. Aguma
PhD Researcher (Entrepreneurship)

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b) Confirmation of Qualtrics' Final Set up

09/09/2024, 11:54

Re: Qualtrics - Dennis Aguma - Outlook

Re: Qualtrics

Dennis Aguma <[redacted]@bcu.ac.uk>

Sun 01/09/2019 11:48

To: [redacted]@bcu.ac.uk>

Thank you Jacob!

Dennis Aguma

Visiting Lecturer | PhD Researcher (Entrepreneurship)

T: +44 7951212772 | uk.linkedin.com/in/aguma

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On 29 Aug 2019, at 15:12, Jacob [redacted]@bcu.ac.uk> wrote:

Hi Dennis

I've set you up with a Qualtrics account.

Your username is [redacted]@bcu.ac.uk

Your password is Dennis01 (you can change this once you have logged in)

The URL you need is [redacted]@trics.com.

The platform is fairly intuitive if you just spend some time trying things out with it. It also has some comprehensive guidance available online. If you have any major problems, please contact Amy-Louise Simkiss in Psychology.

Regards

Jacob

From: Susan Sisay <[redacted]@u.ac.uk>

Sent: 29 August 2019 11:32

To: Jacob Salder <[redacted]@u.ac.uk>

Cc: Dennis Aguma <[redacted]@mail.bcu.ac.uk>

Subject: RE: Qualtrics

Hi Jacob

Congratulations and very best wishes in your new role. Dennis' email is [redacted]@mail.bcu.ac.uk (I have copied him into the email)

Thank you for the info – I'll sign post him to Amy-Louise if he has any issues.

Best Wishes

Susan

about:blank

1/2

c) BCU Participant Access Request, and confirmation of the use of Qualtrics

Re: Online Surveys

Dennis Aguma <[redacted]@mail.bcu.ac.uk>

Fri 13/09/2019 11:01

To: Beulah Maas <[redacted]@bcu.ac.uk>

2 attachments (520 KB)

BCU - Access Request Letter.pdf; BCU - Student Invitation & Information Sheet.pdf;

Hi Beulah,

Thank you for the confirmation. I will engage Susan.

In the meantime, please find attached the access to students request letter, and the Invitation / information sheet for student participants. I'll remind you to send the latter in January.

With thanks!

Dennis

Dennis Aguma

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On 13 Sep 2019, at 09:44, Beulah Maas <[redacted]@bcu.ac.uk> wrote:

Hi Dennis

For the first years you can speak to the other tutor/s who will be teaching on the course (Susan might be one).

I will only be able to send out the survey end of January (start of semester 2) as this is an optional module for most students and I will only definitely know who are on the module by then.

Kind regards

Beulah

From: Dennis Aguma <[redacted]@mail.bcu.ac.uk>

Sent: 13 September 2019 09:18

To: Beulah Maas <[redacted]@bcu.ac.uk>

Subject: Re: Online Surveys

Hi Beulah,

Thanks for confirming.

I would love to share my surveys with your students on day 1, before they get bogged down with their studies. The surveys shouldn't take longer than 10 minutes. I can then arrange to do a subsequent interview with yourself, if that's OK.

I'll shortly be sharing the email, which you can forward to the students at your earliest opportunity.

Your support is very much appreciated.

With thanks

Dennis Aguma

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On 13 Sep 2019, at 08:28, Beulah Maas <[redacted]@bcu.ac.uk> wrote:

Hi Denis

I'm the module leader for the first year Entrepreneurship module – all the pathways are in the same group. I'm also the module leader for the third year module.

Kind regards
Beulah

From: Dennis Aguma <[redacted]@mail.bcu.ac.uk>

Sent: 12 September 2019 14:10

To: Susan Sisay <[redacted]@bcu.ac.uk>; Charlo e Carey <[redacted]@bcu.ac.uk>; Beulah Maas <[redacted]@bcu.ac.uk>

Subject: Online Surveys

Importance: High

Dear Susan, Charlotte & Beulah,

Below are the links to my online questionnaires which i intend to start sending out to respective respondents. Your thoughts and feedback would be very much appreciated.

Student Survey: https://blss.eu.qualtrics.com/jfe/form/SV_cVlrGxY8HihZaRL

Lecturers' Survey:

https://blss.eu.qualtrics.com/jfe/form/SV_3CL1KdqS12grrhz

Industry Survey:

https://blss.eu.qualtrics.com/jfe/form/SV_0CIWqD8UBrEpd09

I've also whittled down the BCU courses to focus on. Are you able to confirm who the module leaders / lecturers for each of these so i can reach out to them ahead of the lectures commencing on 23rd September?

- **Business Management**
 - Entrepreneurship is optional at *1st Year* - possibly 2nd Semester
 - <https://www.bcu.ac.uk/business-school/courses/business-managementba-hons-2019-20>
- **Business Management (Consultancy)**
 - Entrepreneurship is optional *1st Year* - possibly 2nd Semester
 - <https://www.bcu.ac.uk/business-school/courses/business-managementconsultancy-ba-hons-2019-20>
- **Business Management (Professional Practice)**
 - Entrepreneurship is optional *1st Year* - possibly 2nd Semester
 - <https://www.bcu.ac.uk/business-school/courses/business-management-professional-practice-ba-hons-2019-20>
- **Business Management (Enterprise)**
 - Entrepreneurship is *Core at 1st year* - possibly 1st Semester. *Innovation, Entrepreneurship and Entrepreneurial Leadership module*. This seems to be the only module on entrepreneurship at *3rd Year*. ◦ <https://www.bcu.ac.uk/business-school/courses/business-managemententerprise-ba-hons-2019-20>

With thanks.
Dennis

a) Confirmation Of Qualtrics Being Disabled

Access to Qualtrics has since been disabled by BCU, making all live questionnaires and collected data inaccessible as at 09/09/2024. BCU Users were instructed to download their data or switch to QuestionPro, which provides similar features. Since the data was already collected, the researcher opted to download it for analysis and take no further steps.

Re: Qualtrics final reminder

Dennis Aguma <Dennis.Aguma@mail.bcu.ac.uk>

Fri 12/05/2023 14:14

To: Sepideh Zahiri <Sepideh.Zahiri@bcu.ac.uk>

Done. Ta!

Dennis Aguma

Ph.D Researcher (Entrepreneurship)

Faculty of Business, Law and Social Sciences
Birmingham City Business School, Birmingham City University
The Curzon Building, 4 Cardigan Street, Birmingham. B4 7BD

T: 073 [REDACTED]

Information in this email and any attachments are confidential, and may not be copied or used by anyone other than the addressee, nor disclosed to any third party without my permission.

From: Sepideh Zahiri <[REDACTED]>

Sent: 12 May 2023 13:20

To: BLSS Academics (Business School) <BLSSBul[REDACTED]@bcu.ac.uk>; BLSS PGRs

Business <BLSS_PG[REDACTED]@bcu.ac.uk>

Cc: Bruce Philp <[REDACTED]@bcu.ac.uk>

Subject: Qualtrics final reminder

Dear colleagues,

I hope you all are great.

This is the final reminder that today is the last day of accessing to Qualtrics, If you have live questionnaires or collected data then you will be unable to access the data from them after **today**.

Question Pro is a good alternative to Qualtrics and has similar functionality. If you have questionnaires or data files within Qualtrics, you need to save them so that they can be reused in the recommended replacement software, Question Pro.

With regards to the transfer of files from Qualtrics to Question Pro, it is a simple case of saving the files and then uploading this into Question Pro. This should only take 5-10 mins to transfer the files. **In order to do so an account has to be set up.**

With the above in mind, I would be grateful if anyone needs to transfer the data from Qualtrics and requires access to Question Pro, reply to this email so I would be able to keep you in contact with the related person.

Colleagues who are using this software please make sure to download all the data to OneDrive and also ensure **all students (PhDs, PGs, and UGs) have downloaded their data to OneDrive before this time** as Qualtrics won't warn before closing accounts.

If you have any questions, please don't hesitate to contact.

Many thanks

Dr. Sepideh Zahiri

09/09/2024, 12:24

Re: Qualtrics final reminder - Dennis Aguma - Outlook

Lecturer in Marketing
Birmingham City University Business School
Birmingham City University
C232, The Curzon Building,
4 Cardigan Street, Birmingham
B4 7BD

Email: [redacted]



From: Bruce Philp <[redacted]>
Sent: 12 May 2023 10:06
To: BLSS Academics (Business School) <BL[redacted]@bham.ac.uk>; BLSS PGRs Business >
Cc: Amy-Louise Simkiss <[redacted]>
Subject: No Qualtrics after today!

Hi all,

Today is the last working day we have access to Qualtrics.

Please ensure you and any of your students have downloaded all your data (videos available on our moodle page and youtube) and for those of you wanting to keep some of your surveys for the new platform, please make sure you have exported the survey itself.

To do this, you go into your survey.

Then select tools.

Then import/export.

Select export survey (not into word).

Save that in your OneDrive until you have access to a QuestionPro account.

I'm afraid I don't have any more information regarding when we will officially get access to QuestionPro as it is still being set up by IT. I am optimistic this will be completed shortly. However, I am chasing almost daily to make sure this is set up asap. The moment I know something, I will share with you all via email.

Best,
Bruce

about:blank

2/2



dennis.aguma@mail.bcu.ac.uk



Password

Organization is disabled

A report is generated with error tag [ad40978e].

Sign In

Forgot your password? Reset [here](#)

Don't have an account?

SIGN UP

Trying to log in to XM Discover or
Qualtrics Social Connect? Sign in below.

XM DISCOVER

SOCIAL CONNECT

Screenshot of Qualtrics access as at 09/09/2024 confirming that the account was disabled.

Access to Qualtrics has been disabled, making all live questionnaires and collected data inaccessible as at 09/09/2024. Users were instructed to download their data or switch to QuestionPro, which provides similar features. Since the data was already collected, the researcher opted to download it for analysis and take no further steps.

9.17 FOCUS GROUPS' DATA

9.17.1 THEMATIC ANALYSIS

Phase two of the data analysis in this research utilised Braun and Clarke's Thematic Analysis (2006; 2019), which is explored in more detail in the methodology chapter. Presented below are the final themes and how they emerged from the aggregate dimensions. The full thematic analysis is presented in Section B.

A. Final Themes

| No | Aggregate Dimension | Final Theme |
|----|---|--|
| 1 | The ability to use a variety original method to develop a totally new idea, create and build something from nothing | Entrepreneurial Mindset and Competencies This theme encompasses the essential cognitive and behavioural traits that define entrepreneurial individuals. It includes creativity, problem-solving, strategic thinking, risk-taking, resilience, and self-efficacy. Entrepreneurs must be capable of identifying opportunities, delegating effectively, making decisions under uncertainty, and persisting in the face of challenges. Additionally, strong communication skills and leadership abilities are crucial for navigating the entrepreneurial landscape and engaging with key stakeholders. |
| 2 | The ability to recognise a problem and offer a solution | |
| 3 | The ability to connect the dots, and universities' role in helping students to do so | |
| 4 | The ability to manage and delegate or to identify other individuals who can fill that gap | |
| 5 | Communication is an important means to achieving ones' personal and entrepreneurial growth objectives, and that it is important to communicate effectively with various stakeholders in one's entrepreneurial journey | |
| 6 | Ability and readiness, to start, organise and sustain a business | |
| 7 | Self-Efficacy and the ability for entrepreneurs to identify their strengths and weaknesses and finding solutions to any existing barriers. | |
| 8 | Entrepreneurship is about the unknown, and the tenacity to find a way to keep going, regardless | |
| 9 | Mindset and Psychological Factors in Entrepreneurship | |
| 10 | Perceptions and institutional Reputation in Entrepreneurship Education and Quality | Skills and Pedagogy Mismatch The effectiveness of entrepreneurship |

| | | |
|----|---|---|
| 11 | Skills Mismatch in Entrepreneurship Education, caused by bureaucracies in curriculum design and a superiority complex by academics at the universities | education is often challenged by misalignments between curricula and industry needs. Institutional constraints such as bureaucratic curriculum design, traditional pedagogical approaches, and a lack of industry alignment contribute to a skills gap between what universities teach and what the entrepreneurial ecosystem demands. This theme explores the effectiveness of different teaching approaches, including experiential learning, practice-based education, and co-curricular activities, in bridging this gap. |
| 12 | Curricular methods seen as an effective Entrepreneurship Education Method, particularly as they are deemed to made insulate students against industry business challenges | |
| 13 | Self-Driven, Experiential Learning & Practical Application of Skills | |
| 14 | Emphasis on Practice-Based Learning | |
| 15 | Co-curricular is effective in integrating theory with practice. | |
| 16 | Determinants of entrepreneurship Education | |
| 17 | Highlights the role of the Higher Education community in Shaping Entrepreneurship | |
| 18 | Role of Policy in Shaping Entrepreneurship Education | |
| 19 | Niche Skills development and Teamwork in Entrepreneurship | |
| 20 | Significant role of the entrepreneurship ecosystem and environmental factors in shaping entrepreneurship skills | The Role of Environmental Factors in EE and Pedagogy Entrepreneurship does not operate in a vacuum; it is shaped by the broader ecosystem, including financial access, markets, policies, and external support structures. This theme examines the influence of external environmental factors on entrepreneurship education and skill acquisition, highlighting how different ecosystems shape entrepreneurial outcomes and the pedagogical strategies used to equip students for real-world challenges. |
| 21 | Environmental Influence on Entrepreneurship | |
| 22 | Finance affects entrepreneurship skills | |
| 23 | Leveraging External Resources & environment | |
| 24 | Role of Diversity, university environment and exposure in shaping entrepreneurship | |
| 25 | Role of Market and Environmental Awareness in Entrepreneurship | |
| 26 | Role of Higher Education in Shaping entrepreneurship mindsets, that lead to students actually starting their own businesses or expanding family businesses | University Environment and Support Structures Higher education institutions play a pivotal role in shaping students' entrepreneurial aspirations and capabilities. This theme focuses on the role of universities in fostering |
| 27 | Role of Higher Education in enhancing soft skills | |

| | | |
|----|--|---|
| 28 | The role of the University Environment vs The Family and Community in Shaping Entrepreneurship aspirations | entrepreneurship mindsets through institutional policies, community engagement, networking opportunities, and soft skills development. It also contrasts the influence of university environments with family and community support systems, emphasizing the need for adaptability and flexibility in entrepreneurial education. |
| 29 | Role of community and university institutional support structures in shaping entrepreneurship | |
| 30 | Acknowledgement that the university environment and the external ecosystem are different, and to succeed requires flexibility and adaptability. | |
| 31 | The cultural background of students before they come to university affects the extent to which they are likely to be entrepreneurial due to prior experiences. | Culture and Entrepreneurial Resilience Cultural background significantly influences entrepreneurial inclinations and behaviours. This theme explores how social norms, prior experiences, and familial influences shape students' attitudes toward entrepreneurship. Additionally, it examines how cultural and social contexts contribute to resilience, adaptability, and the ability to navigate challenges in entrepreneurial endeavours. |
| 32 | Resilience as a result of cultural and Social Influences | |
| 33 | Family has a strong influences on the development of practical entrepreneurship skills and attitudes. | |
| 34 | Digital skills are invaluable. Any entrepreneur without digital skills will soon be rendered irrelevant | Digital Competencies in Entrepreneurship: In an increasingly digital world, digital literacy is a fundamental entrepreneurial skill. This theme addresses the growing importance of digital tools, ICT, and social media in shaping entrepreneurship. Entrepreneurs without strong digital competencies risk being left behind in competitive markets. This theme explores how digital platforms facilitate business growth, market access, and innovation. |
| 35 | The internet, ICT and Digital Platforms, especially social media play a very important role in the development of entrepreneurship skills | |

B. THEMATIC ANALYSIS: EVOLUTION OF AGGREGATE DIMENSIONS

Below is list of relevant extracted quotations (totalling 90 in all), condensed quotes, 1st order categories, 2nd order themes, and aggregate dimensions. It presents a detailed genesis of Thematic Analysis, that was summarised in A above.

| Quote No | Participant Identity | Full Quotation Extract | Compressed Quotation | Implication and understanding | 1st Order Concepts | Order | 2nd Order Themes | Order | Aggregate Dimension |
|----------|----------------------|---|---|---|---|-------|-------------------------------------|-------|---|
| | | ENTREPRENEURSHIP SKILLS | | | | | | | |
| | | Perceived Understanding of Entrepreneurship and Entrepreneurship Skills | | | | | | | |
| | | Creativity and Innovation: | | | | | | | |
| 1 | Student 1A from MUBS | "...what I understand from it is that it is a process of creative disruption. Meaning that whenever someone gets the skills of entrepreneurship, the person can change the old-fashioned things into new." | "... it is a process of creative disruption..." | Entrepreneurship is seen as an innovative process where old methods are replaced with new, creative solutions. | Creative disruption, Innovation, Transformation | | Creative and Innovative Thinking | | The ability to use a variety of original methods to develop a totally new idea, create and build something from nothing |
| 2 | Student 3A from MUBS | "... my understanding of entrepreneurship skills are the abilities, process, attitude of changing the old thing to a new way or coming up with a new thing like what we call innovations and creativity they are the key things or key skills of entrepreneurship." | "... the abilities, process, attitude of changing the old thing to a new way..." | Entrepreneurship involves abilities to innovate, transform old methods into new, and develop creative ideas. | Innovation, Creativity, Transformational skills | | | | |
| 3 | Student 4A from MUBS | "...for example, innovation can be a skill, creativity can be a skill, so when we talk about entrepreneurship skills, those are some of the things to be aware of." | "...for example, innovation can be a skill, creativity can be a skill..." | Entrepreneurship skills vary and embody both innovation and creativity. | Innovation, Creativity | | Variety | | |
| | | Leadership and Management: | | | | | | | |
| 4 | Student 1A from MUBS | "... when you come up with an idea, if you don't implement it, it will not work, it will still remain like any untapped idea. Then through leadership and management, when you are an entrepreneur or you have come up with any idea, to materialise it, it will be through you as a leader because you are the one who is having the idea - you'll obviously be the leader, but you can still bring other people with whom you can work together because two heads are better than one." | "... when you come up with an idea, if you don't implement it, it will not work..." | While action is important, it highlights the importance of leadership and management in bringing others on board as you cant do it alone. | Leadership, Idea implementation, Collaboration | | Leadership and Strategic Management | | The ability to manage and delegate or to identify other individuals who can fill that gap |

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| 5 | Lecturer 2 from BCU | "... so, actually, looking at this [entrepreneurship skills] list, the students don't have all these skills. I think you need to have elements of some of them ... so some of them I have been working with recently and they are very creative and innovative but then they are not very good at communication and strategy and they are the first to admit they can't stand in front of a camera... but that can't stop them from being entrepreneurial – James, he is a primary example he hires people that can do things better than him. So, I think as an entrepreneur that is probably a skill that you identify your weaknesses so that you can actually Identify that I have got all of these and I'm not good at kind of decision making." | "... looking at this [entrepreneurship skills] list, the students don't have all these skills..." | Recognises the diversity of skills needed in entrepreneurship and the importance of self-awareness and delegation. | Skill diversity, Self-awareness, Delegation, Weakness identification | Adaptive Leadership | |
| | | Opportunity Recognition: | | | | | |
| 6 | Student 4A from MUBS | "I understand entrepreneurship skills as skills that involve Identifying of gaps in the business environment that are not satisfied, or untapped opportunities and coming up with products or services that can be able to fit those gaps and the needs of the customers or the society that needs them." | "I understand entrepreneurship skills as skills that involve Identifying of gaps..." | Emphasises opportunity recognition and developing products/services to fill market gaps. | Opportunity recognition, Market needs, Product development | Opportunity Identification | The ability to recognise a problem and offer a solution |
| 7 | Student 1A from MUBS | "... meaning you have to lay down your strategies to see how you can achieve your idea in order to satisfy the needs of the customers." | "... meaning you have to lay down your strategies to see how you can achieve your idea..." | Stresses the importance of strategic planning to achieve business goals. | Strategic planning, Goal setting, Customer needs | Strategic Planning and Goal Setting | |
| | | Action: | | | | | |
| 8 | Student 3 from BCU | "... my understanding of entrepreneurship is that it requires a multitude of skills that overlap to end up with a final successful entrepreneurship venture." | "... it requires a multitude of skills..." | Entrepreneurship requires a combination of overlapping skills to achieve success. | Skill Diversity | Integrated Skill Development | Ability and readiness, to start, organise and sustain a business |
| 9 | Lecturer 3 from MUBS | "... basically, these are abilities that do not only stop at helping someone to start but also to grow and expand. Compared to other skills like business skills, we are focusing on growth and expansion to be more specific... it is the entrepreneurs who can cause an expansion." | "... abilities that do not only stop at helping someone to start but also to grow..." | Highlights the focus on skills that support starting, but also business growth and expansion. | Growth skills, Expansion focus, Entrepreneurial growth | Growth and Expansion Focus | |
| | | Perceived Value of QAA Entrepreneurship Skills | | | | | |

| | | Reflection: | | | | | |
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| 10 | Lecturer 1 from BCU | "... a few [of our students] have gone through starting their own business and one of the things that I then had to do in terms of supporting them was self-efficacy – self efficacy as a skill - because a lot of the time you are spending a lot of the time in entrepreneurship alone, and it's a very, very individualised experience and therefore the self-efficacy of that individual to believe in their own ability to actually execute [is very important]." | "... a few [of our students] have gone through starting their own business..." | Emphasises the importance of self-efficacy in entrepreneurship, especially when working independently, which is most of the time, especially during the start phase. | Self-efficacy, Resilience, Independence | Reflective Practice and Self-Efficacy | Self-Efficacy and the ability for entrepreneurs to identify their strengths and weaknesses and finding solutions to any existing barriers. |
| 11 | Student 4A from MUBS | "Action and reflection are a skill in that helps the entrepreneur to identify their strengths or weaknesses ... by looking back at the failures and the successes and make corrective measures to come up with and make the project well." | "Action and reflection are a skill that helps the entrepreneur to identify their strengths or weaknesses..." | Highlights the importance of reflection and learning from past experiences in entrepreneurship. | Reflective practice, Self-assessment, Learning from experience | | |
| 12 | Student 3A from BCU | "...again, the reflection part is really good so you can go back and say oh I can do this but or yeah I can change this attribute I feel like the reflection makes people get to where they want to be entrepreneur so yeah that's it." | "...again, the reflection part is really good so you can go back and say..." | Suggests that reflection is crucial for personal and entrepreneurial growth. | Reflection, Personal growth, Adaptive learning | | |
| 13 | Lecturer 2 from MUBS | "... maybe also to add on action you know as we say that entrepreneurs are decision makers, but they are not just decision makers, they make decisions that are well calculated and informed. I think those decisions do not just come out of the blue. They come out of first scanning the environment and you reflect about what you are going to decide. So, I think that action and reflection is integrated into decision making." | "... maybe also to add on action you know as we say that entrepreneurs are decision makers..." | Discusses the integration of action and reflection in informed decision-making in entrepreneurship. | Decision-making, Reflection, Environmental scanning | Reflective Decision-Making | |
| | | Communication and Strategy Skills: | | | | | |
| 14 | Student 3A from MUBS | "... so, from that point, entrepreneurs need to lay down the tools or the means of achieving their goals and they need to communicate those means to the stakeholders. For example, if it is a company, you are the CEO [and] you have laid down the strategies, you have to communicate them to the employees, to the shareholders - in that you work hand in hand to achieve the common goal." | "... entrepreneurs need to lay down the tools or the means of achieving their goals, and they need to communicate those means to the stakeholders." | Emphasises the role of communication in achieving organisational goals and stakeholder engagement. | Communication, Strategy communication, Stakeholder engagement | Strategic Communication | Communication is an important means to achieving ones' personal and entrepreneurial growth objectives, and that it is important to |

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| 15 | Lecturer 2A from MUBS | "...when someone is not in the business, when you look at the entrepreneurial process, you first ask yourself where is communication going to help in this? But after establishing your business that is when you will need communication skills to sustain that the growth of the business or the business itself. So, I think communication skills is not a trait because anyone, even if they are not an entrepreneur, can have good communication skills, but does that make them an entrepreneur?" | "...anyone, even if they are not an entrepreneur, can have good communication skills, but does that make them an entrepreneur?" | Argues that communication skills are not unique to entrepreneurs, but generally essential for personal and business growth. | Communication, Business growth, Skill differentiation | Role of Communication in Growth | communicate effectively with various stakeholders in one's entrepreneurial journey |
| c) Digital Skills: | | | | | | | |
| 16 | Student 3A from MUBS | "I do fashions, I sell suits, dresses and others, so I have three different platforms; I have Facebook, I have WhatsApp and I'm planning to open up a website so, in this era without digital skills you cannot succeed in the business world because the world is moving from that analogue way of doing business to digital - meaning you can use your smartphone to access your client, your customer, your supplier and everybody or every stake holder in your business. Me I'm enjoying that skill because I've accessed it from MUBS so I'm using it to boost my sales, to boost my business so indeed it is needed or required in entrepreneurship." | "... in this era without digital skills you cannot succeed in the business world because the world is moving from that analogue way of doing business to digital." | Highlights the necessity of digital skills for modern entrepreneurship and business success. | Digital literacy, Technological adaptation, Business growth | Digital Competency and Adaptation | Digital skills are invaluable. Any entrepreneur without digital skills will soon be rendered irrelevant |
| 17 | Lecturer 5, MUBS | "... it would be a very vital skill and for entrepreneurs in Uganda. However, it's not yet a big deal in Uganda. What do I mean? I think we have seen taxify Phone App in Uganda, and still if I went to the market to buy matooke (bananas) and I'm supposed to pay using mobile money (MTN Mobile Money), there is a higher likelihood I would come out of the market without the matooke (bananas). So, what does that mean? It means that business businesses in Uganda are still thriving without necessarily using technology... maybe some things have not yet been appreciated by the customers and since we are customer driven at times, we just go with what the customer wants and so maybe in the next ten years we can think about it but | "...it's not yet a big deal in Uganda. What do I mean? I think we have seen taxify Phone App in Uganda, and still if I went to the market to buy matooke and I'm supposed to pay using mobile money, there is a higher likelihood I would come out of the market without the matooke" | Discusses the limited need and application of digital skills and technology, given the state of Uganda's digital landscape | Digital skill adoption, Customer-driven, regional adaptation | Digital Competency Challenges | |

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| | | for now, [not that much]." | | | | | |
| 18 | Lecturer 7, MUBS | "It would be good but given the [ICT] infrastructure in Uganda, the knowledge adoption and the resources, it is lacking. That is why you normally see most of the entrepreneurs are just necessity entrepreneurs because they cannot incorporate in their businesses computer usage, [and] the bandwidth connectivity of internet is also still a challenge, otherwise it would have been [a key skill] because it makes the business grow very fast and actually right now if you can see in the books of Jumia, Safe Boda, Uber, you can see that they have really been able to move [and] to compete with companies that have existed for the last twenty years because they have hooked into that digital element, and their revenues are therefore high. Therefore, in the context of Uganda, we don't have the infrastructure [so] it is really a challenge. And I think for UK, where you've been, you really see that now people are taking [digital skills] to another level." | "... given the [ICT] infrastructure in Uganda, the knowledge adoption and the resources, it is lacking ... and I think for UK, where you've been, you really see that now people are taking [digital skills] to another level" | Highlights the challenges of digital infrastructure and knowledge adoption in Uganda compared to more developed regions like the UK. | Digital infrastructure, Digital Disparity, Necessity entrepreneurship, Knowledge gap | Digital Infrastructure and Knowledge Gaps | |
| 19 | Lecturer 7, MUBS | "There is a lot of obsolesce so every day if you do not think in the digital insight, you're almost irrelevant." | "There is a lot of obsolesce so every day if you do not think in the digital insight, you're almost irrelevant." | Stresses the importance of digital skills to remain relevant in the modern business world. | Digital obsolescence, Relevance, Technological adaptation | | |
| Non-QAA Entrepreneurship Skills | | | | | | | |
| Risk Taking: | | | | | | | |
| 20 | Student 3A from BCU | "... the element of like taking risks ... you know ... just going out and actually doing ... carrying out your idea... yeah... that, I feel like that needs to be number one thing people need to know about entrepreneurship" | "... taking risks ... just going out and actually doing ... carrying out your idea" | Highlights the importance of risk-taking as a fundamental aspect of entrepreneurship. | Risk-taking, Action orientation | Risk-Taking and Action | Entrepreneurship is about the unknown, and the tenacity to find a way to keep going, regardless |
| 21 | Lecturer 2, BCU | "...you know for me, and certainly my own experience, as an entrepreneur, you have to have a level of tenacity it has to be there - not only the passion - tenacity goes beyond the passion and resilience ... because you know not every strategy you execute is going to be successful, not every time you pitch for some | "... you have to have a level of tenacity ... not only the passion - tenacity goes beyond the passion and resilience..." | Emphasises the necessity of passion, tenacity, resilience, and the resourcefulness to keep going. | Tenacity, Resilience, Resourcefulness | Resilience and Tenacity as sub components of Risk Taking | |

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| | | resources, you are going to get them as expected – so, resilience, tenacity, also resourcefulness." | | | | | |
| | | Networking: | | | | | |
| 22 | Student 5A from MUBS | "... through networking, one is able to meet other entrepreneurs. Take Uganda [for instance], though we have the ideas, we are not yet perfect at implementing [them] so we need a lot of networking in order to find people that can help us boost our entrepreneurship." | "... through networking, one is able to meet other entrepreneurs..." | Highlights the value of networking for improving chances of business growth. | Networking, Collaboration, Skill improvement | Networking for growth | The ability connect the dots, and universities role in helping students to do so |
| 23 | Lecturer 3B from BCU | "... I can say yes, the external factors are gonna happen uncontrollably they are gonna happen whether we come here or not but I think as a university we've got to help the students say for example with the networks if you are kind of in a situation where you're never go out and meet people in different works it's our role to actually put them in those networks say to network events get them to make sure they are not limited in the first they are building nice networks so they kind of almost we kind of helping them come make up networks they have wanted before and they oversee with things like what's happening at home with culture you can't change what's happening at home but we will hopefully empower them and educate them to enable them to kind of evidence skills to kind of do things..." | "... external factors are gonna happen uncontrollably ... as a university we've got to help the students ... if you are ...in a situation where you never go out and meet people in different works, it's our role to actually put them in those networks" | Discusses the importance of creating networking opportunities for students and preparing them to adapt to external factors, and the role of universities in facilitating these networks. | Networking opportunities, External factors, Adaptability, University Support | Networking and Adaptability, Institutional Support | |
| | | Perception of Lecturers About Students at Non-Participating Universities in the Same Regions | | | | | |
| 24 | Lecturer 3, BCU Group 1 | "... let me put this in context. If I look at the universities that we are at par with in the rankings, then I would say at least we are ... I'd say 60%, because I've gone out to a few countries at times to recruit and meet with some of our graduates... some of our students, and I get some feedback from them. I'm not talking about looking at the entire university. I would agree with him Oxford and Cambridge. We'd definitely be below. But if you look at other [equally ranked] universities, we are above most of them [by] about 60%" | "... if you look at other [equally ranked] universities, we are above most of them [by] about 60%" | Positions the university as competitive in its entrepreneurship education compared to similar institutions but acknowledges being below top-tier institutions like Oxford and Cambridge. | Competitiveness, Institutional ranking, Graduate feedback | Institutional Competitiveness | Perceptions and institutional Reputation in Entrepreneurship Education and Quality |

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| 25 | Lecturer 7, MUBS | "At MUBS teaching entrepreneurship development is across all programs [whether] you are doing procurement or marketing or accounting which could probably lack in other universities, as it may not cut across all the points." | "... entrepreneurship development is across all programs [whether] you are doing procurement or marketing or accounting." | Points out the comprehensive integration of entrepreneurship education across all programs at MUBS, unlike other universities. | Cross-disciplinary integration, Comprehensive education | Multidisciplinary Education Integration | |
| 26 | Lecturer 5, MUBS | "I feel our students are better prepared to be entrepreneurs than any other students from other universities. I think whichever course the student is doing at MUBS, by the time they leave they will be conversant with what it takes for them to start a business and they've been empowered even those whose mindset has not yet changed, and they think that may be getting employed." | "I feel our students are better prepared to be entrepreneurs than any other students from other universities..." | Asserts that MUBS students are better prepared for entrepreneurship, regardless of their initial mindset. | Entrepreneurial preparedness, Empowerment, Mindset change, Post Graduation adaption | Student preparedness and post graduation growth | |
| 27 | Lecturer 2, MUBS | "I think we are far better.... some of them have been benchmarking from the things our MUESA students have been doing. And of course, we've been with some of the lecturers - you find that some of the things, they are benchmarking from our entrepreneurship department. So that typically shows that we are far much better and we are the leading." | "I think we are far better.... some of them have been benchmarking from the things our MUESA students have been doing..." | Suggests that MUBS is a leader in entrepreneurship education, with other institutions benchmarking against them. | Benchmarking, Leadership, Educational excellence | Educational Leadership and Benchmarking | |
| Skills Mismatch - University Qualifications Versus Employer Expectations | | | | | | | |
| 28 | Lecturer 5, MUBS | "Right now, we have a bachelors' degree in real-estate management. But it really takes long to before they are credited by the National Council for Higher Education. So, to me, I just feel there's a lot of bureaucratic tendencies - and because of that, we have some mismatches. Then, a few people are involved in decision making. For example, a course can be very good but since MUBS is required to go to MUK to the senate and then they discuss, sometimes ... a good course is dropped not because it is not necessarily irrelevant to the market, but because the academicians think so." | ... there's a lot of bureaucratic tendencies... because of that, we have some mismatches... few people are involved in decision making." | Criticises bureaucratic decision-making processes leading to a mismatch between university courses and market needs. | Bureaucracy, Course relevance, Market alignment | Policy and Market Misalignment | Skills Mismatch in Entrepreneurship Education, caused by bureaucracies in curriculum design and a superiority complex by academics at the universities |

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| 29 | Lecturer 1, MUBS | "I feel what is causing mismatch, is the kind of education - the private system of education that was brought in Uganda. We have about 50 universities. Out of those 50 universities, around 43 are private universities so for them all they are looking out for is to churn out students and more students without necessarily emphasising skilling the Ugandans. There are only a few government universities - about 8 whose objective is different [from that of the private universities]. In fact, when you meet a student from Makerere University, Kyambogo you will not find those exaggerated grades, but you find they know what they are doing. But meet a student from [redacted] just rubbish." | "I feel what is causing mismatch, is the kind of education [offered by] the private system of education that was brought in Uganda." | Critiques the private education system in Uganda for prioritising quantity over quality, leading to skills mismatch. | Education system critique, Skills mismatch, Quality vs. quantity | Quality vs. Quantity in Education; profit over quality or rigour | |
| 30 | Lecturer 1, MUBS | "... I agree with him. I have had a chance of supervising different graduates elsewhere ... not just here ... and I can tell you that the students of MUBS are unique. But MUBS students cannot represent the entire country. So, if they [the unemployment rate] is 20% then generally the employability skills are low. But as MUBS we have got reports that our students are very good. But if it is MUBS alone, then I think that percentage is like 15% or 10% of the graduates in Uganda." | "... I can tell you that the students of MUBS are unique. But MUBS students cannot represent the entire country... we have got reports that our students are very good. " | Acknowledges the uniqueness of MUBS students but recognises broader employability and skills issues in Uganda. | Graduate employability, educational outcomes, National education quality | Superiority Complex, Employability and Educational Outcomes | |
| | | ENTREPRENEURSHIP EDUCATION METHODS | | | | | |
| | | Effectiveness of Entrepreneurial Education Methods (EEM) | | | | | |
| | | Curricular: | | | | | |
| 31 | Student 2A | "I believe curricular is better because many people who came up with businesses without going to class, at the end of the day they avoid people who go to class. I'll give an example of myself during holidays I work for someone, I'm not a professional, but I do what I can to manage his business. He has everything but can't manage the business." | "I believe curricular is better because many people come up with businesses without going to class..." | Highlights the clash between practical experience and formal education | Curricular, practical experience, Informal learning, Business management | Experiential Learning vs curricular education | Curricular methods seen as an effective Entrepreneurship Education Method, particularly as they are deemed to made insulate |

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| 32 | Student 5A | "Currently you know the world is changing and if now you don't follow the speed right now then you are outside the box... because even in the end you find those people with big business, those who have already started something they need to get in those people those who have already studied about entrepreneurship. So right now, it is very vital." | "Currently you know the world is changing and if now you don't follow the speed right now then you are outside the box..." | Stresses the need for adaptability and keeping pace with changes in the entrepreneurial landscape. | Adaptability, Continuous learning, Relevance | Adaptive Learning | students against industry business challenges |
| 33 | Student 4, MUBS | "Someone who has created a firm foundation of the curricular, it's easy to manoeuvre all those other hardships that can come in the long run." | "Someone who has created a firm foundation of the curricular, it's easy to manoeuvre all those other hardships..." | Argues that a strong curricular foundation can help navigate future challenges in entrepreneurship. | Curricular foundation, Skill resilience, Problem-solving | Foundational Knowledge and Resilience | |
| | | Extra-curricular: | | | | | |
| 34 | Student 5A, MUBS | "... many people acquired knowledge and skills from class about entrepreneurship. They have been taught creativity and innovation in class, but they cannot generate any single viable idea. So, to me from outside the class, classwork from the world network, one can be a successful entrepreneur because we have seen many illiterate people being great entrepreneurs. Reason being, for them they can identify the idea, and they work upon it but for most of the people who have acquired knowledge from class, they just have the knowledge about the thing theoretically, but they don't have that practical part of it." | "... They have been taught creativity and innovation in class, but they cannot generate any single viable idea... they have the knowledge about the thing theoretically but they don't have that practical part of it." | Critiques the overemphasis on theoretical knowledge in formal education, advocating for real-world application and learning by doing. | Extra-curricular, practical experience, Theoretical knowledge, Real-world application | Learning by Doing | Self Driven, Experiential Learning & Practical Application of Skills |
| 35 | Student 4, BCU & MUBS Combined | "I think extracurricular is probably the most important because you're actually getting hands on and doing it and experiencing it for yourself, I think it's important to do a bit of research to know about your market and obviously see what the other business have done as well, but I think extracurricular is probably the most important because you can also get so much from just writing business plan - you actually need to experience it and try doing things." | "I think extracurricular is probably the most important because you're actually getting hands on and doing it..." | Highlights the significance of extracurricular activities in providing practical, hands-on learning experiences. | Hands-on experience, learning by doing | | |

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| 36 | Lecturer 4, MUBS | "I would recommend extra-curricular because something you have done yourself you can never forget it actually. Because I also do the same in my class, I'd tell them go to the field and maybe you make some interviews and analyse people's businesses and see what they do and actually when they would come back to present you would see that someone has really gotten the skills. So, I think co-curricular and extra-curricular is better than curricular because if it is something practical you can easily remember than other theory things. I actually do not like theory so..." | "I would recommend extra-curricular because something you have done yourself you can never forget it actually..." | Supports extracurricular activities as effective methods for learning entrepreneurship skills through practical engagement and reflection. | Practical engagement, skill retention, field experience | | |
| 37 | Student 1A, MUBS | "I believe extra-curricular is the best because ... extra-curricular is something like you are not forced to do, it is your own demand that you want to pursue that thing and it is you who sets the target on how you are going to achieve it fully." | "I believe extra-curricular is the best because ... extra-curricular is something like you are not forced to do..." | Emphasises the self-driven nature of extracurricular activities, which enhances learning motivation and goal setting. | Self-driven learning, Goal setting, Motivation | Self-Motivated Learning | |
| | | Co-curricular: | | | | | |
| 38 | Student 4A from MUBS | "... as an entrepreneur you need to balance - you need to have the knowledge, and you should also have the experience of the field. For example, we talk of a skill [such as] record keeping and bookkeeping skills, you can get them from curricular, from school, it helps you to know the profits because an entrepreneur's aim is to make profits, so you know how this business is run and you cannot just know without picking some brief education or literacy from the curricular. And then for the extra-curricular, it helps in making these theories practical, for example in class I didn't get other skills using that field, so I go with co-curricular." | "... you need to have the knowledge, and you should also have the experience... for the extra-curricular, it helps in making these theories practical, for example in class I didn't get other skills using that field, so I go with co-curricular." | Discusses the need to balance theoretical knowledge from the curriculum with practical skills from extracurricular activities for comprehensive entrepreneurship education. | Knowledge and experience balance, Theoretical and practical skills, Comprehensive learning | Integrating Theory with Practice | Co curricular is effective in integrating theory with practice. |
| 39 | Student 2 | "... for me I will go with co-curricular because in entrepreneurship, before someone goes in the field, they should have the knowledge or theory behind an idea so that by the time that person is in the field, he has fully parked knowledge about something - from | "... for me I will go with co-curricular because in entrepreneurship, before someone goes in the field, they | Advocates for co-curricular methods that combine theoretical preparation with practical application, such as feasibility studies. | Co-curricular learning, Feasibility study, Practical application | | |

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| | | price and then goes in the field and applies the knowledge being given. Here we run co-curricular where a lecture provides written information and guide on how we can explore opportunities in the world, and after the field we carry out what we call feasibility study analysis on the idea being submitted during class discussion." | should have the knowledge or theory behind an idea..." | | | | |
| 40 | Lecturer 2 from BCU Group 2 | "... so, I agree with lecturer 3 (BCU) - you have to have curricular. For example, my module, they have learned a theory about planning using some frameworks. However, I feel that the co-curricular is what kind of sets them apart. So, in my module, I did this as a case study. That, according to me, it won't have the same impact [if it is just curricular] so actually having a live brief came in handy. They (colleagues) actually say they can't believe the level of analysis and evaluations that the students are doing and I think that kind of empowers the students ... and kind of reinforces what I'm saying [in class]." | "...you have to have curricular. For example, my module, they have learned a theory about planning using some frameworks. However, I feel that the co-curricular is what kind of sets them apart." | Supports the use of co-curricular activities, such as case studies and live briefs, to enhance learning outcomes beyond traditional curricular methods. | Co-curricular activities, Case studies, Enhanced learning outcomes | | |
| 41 | Lecturer 2, BCU | "I feel that for example what we do in the classroom in terms of teaching and giving frameworks ... a framework is not given in isolation... if you give a student a framework, [and] it's based on somebody's case study that failed, and somebody learned about it, I feel that that part is important because it is almost like it is helping us focus on things that could potentially be a problem for you in the future as a company. Now, I think the challenges is learning styles – for some people, just coming [to class] and sitting there without talking to somebody would not work for them." | "... a framework is not given in isolation... the challenges is learning styles – for some people, just coming [to class] and sitting there without talking to somebody would not work for them". | Emphasises the importance of using practical case studies in teaching to help students learn from real-life failures and understand potential business challenges. | Case studies, Learning from failure, Real-world challenges | Case-Based Learning | |
| 42 | Student 10, MUBS and BCU Combined | "Before I came to university, I studied entrepreneurship, but the way I got the information from the teachers was the way I left it. When I came to university, I remember during our entrepreneurship class, they told us to start our own business as coursework. We took the initiative of starting a | "Before I came to university, I studied entrepreneurship... At university, we got a chance to acquire more entrepreneurial | Describes the shift from theoretical learning to practical application in university, which enhanced entrepreneurial skills through hands-on projects. | Hands-on projects, Practical application, Skill acquisition | Transition from Theory to Practice | |

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| | | business, and through selling sweets, we learned communication skills and creativity. At university, we got a chance to acquire more entrepreneurial skills." | skills." | | | | |
| | | How Choice of EEM Is Determined By University Policy | | | | | |
| 43 | Lecturer number 2, MUBS | "I think we are having challenges whereby we are questioned whether we are a vocational school or a university. For instance, if part of the examination we say that maybe entrepreneurship students are going to come up with new projects, and in the process of coming up with those new products or services you're going to find they are going to be doing more of [what colleagues in the industry perceive as] vocational work." | "I think we are having challenges whereby we are questioned whether we are a vocational school or a university..." | Explores the tension between theoretical and practical learning in entrepreneurship education, questioning the identity of the institution. | Theoretical vs. practical learning, Vocational identity, Institutional identity | Balancing Theory and Practical Learning | Determinants of entrepreneurship Education |
| | | Methodology vs. Niches | | | | | |
| 44 | Lecturer 2, BCU | "... again, it's almost impossible for us because if you have a class of 80 students, and they were all to come up with 80 different things that they are passionate about, if there's a way to tap into doors in the delivery of entrepreneurship where everyone is doing something that they like that would be most effective, but will it be possible to do? ... would you be able to provide that support one-to-one? Because one student wants to do something on football, another [student] wants to do something on another topic, some of them will come up with areas you don't even know anything about. You can't be everywhere." | "it's almost impossible for us because if you have a class of 80 students, and [if] they were all to come up with 80 different things that they are passionate about... that would be most effective, but will it be possible to do? ... would you be able to provide that support one-to-one?..." | Discusses the challenge of providing personalised support to a large number of students with diverse entrepreneurial interests. | Niche skills, Personalised support, Student diversity, Resource constraints | Niche Skills, Personalised Learning | Niche Skills development and Teamwork in Entrepreneurship |
| 45 | Student No 6, MUBS and BCU Combined focus group | "Just want to say I agree with what Student 1 said about having to find a problem and creating a solution for that ... for the skills you put up, I think they are all important but also I think that being an entrepreneur you don't have to have all those skills. I think you can be good at a few of them and get a team that can help you with the other ones as well." | "... being an entrepreneur you don't have to have all those skills. I think you can be good at a few of them and get a team that can help you with the other ones." | Emphasises that entrepreneurs do not need to master all skills but should focus on their strengths and collaborate with others who complement their skills. | Skill specialisation, Teamwork, Collaboration, Delegation | Leveraging Team Strengths | |

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| 46 | Lecturer 2, BCU | L2: Ah so I have worked with a lot of entrepreneurial ah entrepreneurs so it's kind of very similar to what lecturer one said. That actually looking at this list they don't have all these skills, so they I think you need to have elements of all of them but some of them may be kind of have more kind of evident so they may be the most successful, so some of them I have been working with recently and they are very creative and innovative but then they are not very good at communication and strategy and they are the first to admit they can't stand in front of a camera so that can't stop them from be xxx Richard xxx, he is a primary example he hires people that can do things better than him so I think as an entrepreneur that is probably a skill that you identify your weaknesses so that you can actually Identify that I have got all of these and I'm not good at kind of decision making, critical analysis so getting somebody to help you make these decisions could in away become a successful fail so you might kind of have element to solve them but I think its key when it's about identifying your weaknesses so you can evaluate yourself, (delegate) yeah. | "xxx, he is a primary example, he hires people that can do things better than him" | Suggests that entrepreneurs can leverage external expertise to address skill gaps, such as hiring specialists for digital marketing. | Outsourcing, Delegation, Skill Gaps, External expertise | Leveraging Individual Strengths | |
| | | Skills Vs Mindsets | | | | | |
| | | Psychological Factors: Entrepreneurial Intent, Mindset and Ambition | | | | | |
| 47 | Student 7, BCU/MUBS Combined Group | "According to me, I think it doesn't affect you in any one way or the other, I think its according to someone's ambition and knowing what they really want to achieve in life because it's not about being a fulltime that you limited at knowing certain things or when you are a part-time you have the time to get out to know everything that you want to know. I think it's all about your mindset. During my internship I was a part-time Student because I could go for internship and come back to campus but then I felt it's the same thing like a fulltime Student - its actually about you and how you set your mind to learning certain things and to get what you want." | "... its actually about you and how you set your mind to learning certain things and to get what you want." | Highlights that ambition and mindset are crucial in entrepreneurship, regardless of one's status as a full-time or part-time student. | Ambition, Mindset, Learning approach | Importance of Mindset and Ambition | Mindset and Psychological Factors in Entrepreneurship |

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| 48 | Student 7, BCU/MUBS Combined Group | "I think psychological factors on oneself, like the way people think individually can also impact if they want to be entrepreneurs or not." | "I think psychological factors on oneself, like the way people think individually can also impact if they want to be entrepreneurs or not." | Suggests that individual psychological factors significantly influence entrepreneurial intent. | Psychological factors, Entrepreneurial intent, Personal motivation | Influence of Psychological Attributes | |
| | | b) Environmental Influence and Peer Learning | | | | | |
| 49 | Student 5, BCU and MUBS combined group | "I just want to make a point that I think the university gave me more skills for entrepreneurship rather than before not specifically because of the university's curriculum but rather the fact that at university I was surrounded by people who also have the same mindset who wanted to be entrepreneurial like me and then I could reflect on them and on the skills that they had and improve." | "... at university, I was surrounded by people who also have the same mindset who wanted to be entrepreneurial like me and then I could reflect on them and on the skills that they had and improve" | Points out the importance of being in an environment with like-minded peers in enhancing entrepreneurial skills and mindset. | Peer learning, Entrepreneurial environment, Skill improvement | Enhancing Skills Through Environment | Environmental Influence on Entrepreneurship |
| 50 | Student 5, BCU and MUBS combined group | "So, for example for me being surrounded by other people who also are into entrepreneurship I was able to communicate better, and I would say that improved my communication overall the university is important for improving your entrepreneurship skills not just because of what you've taught but also that you surrounded by people who have the same ambitions. You can also get online like you mentioned before to an entrepreneurship society, but the thing is that it's just looking at screen that's not actually physically being surrounded by people who also have the same mindset which them improves the skills is better than just reading, that's my opinion." | "So, for example for me being surrounded by other people who also are into entrepreneurship I was able to communicate better" | Emphasises the value of physical presence in a like-minded entrepreneurial community for improving communication skills and overall development. | Physical presence, Community influence, Communication improvement | Enhancing Skills Through Community | |
| | | ENTREPRENEURSHIP ECOSYSTEMS | | | | | |
| | | Overall Ecosystem Effects | | | | | |
| 51 | Student 3, MUBS | "I agree with Student 1; there is nothing extra I would like to say." | "I agree with Student 1 [on the positive impacts of environmental | Expresses agreement with a peer's statement, indicating consensus or shared understanding regarding the | Peer agreement, Shared understanding, Consensus, | Reinforcing Collective Opinions on Ecosystems | Significant role of the entrepreneurship ecosystem and |

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| | | | factors]." | effect of ecosystem factors | Entrepreneurship Ecosystem | | environmental factors in shaping entrepreneurship skills |
| 52 | Student 8, MUBS | "I would also agree with Student 1. I think the ecosystem gives us much more impact because, to an extent, the rest of our alternatives come from the ecosystem." | "I think the ecosystem gives us much more impact ... our alternatives come from the ecosystem." | Emphasises the significant role of the entrepreneurship ecosystem in shaping opportunities and resources for entrepreneurs. | Ecosystem impact, Resource dependence, Entrepreneurial opportunities | Role of Ecosystem in Shaping Opportunities | |
| Finance: Necessity Entrepreneurship vs. Opportunity Entrepreneurship | | | | | | | |
| 53 | Student 4 - From BCU | "In less developed countries like Pakistan, accessing resources and support for entrepreneurship is more challenging compared to more developed countries like England. The scarcity of resources and the prevalence of criticism make it harder to pursue entrepreneurial endeavours. In contrast, in more developed countries, there are more resources available, and the culture is more supportive of entrepreneurship." | "In less developed countries like Pakistan, accessing resources and support for entrepreneurship is more challenging compared to more developed countries like England..." | Highlights the challenges faced by entrepreneurs in less developed countries due to resource scarcity and cultural barriers compared to more developed regions. | Resource challenges, Cultural barriers, regional disparities | Geographic Disparities in Entrepreneurial Access | Finance affects entrepreneurship skills |
| Human Capital: The Role of Higher Education in Shaping Entrepreneurial Mindsets | | | | | | | |
| Integration of External Resources and Services | | | | | | | |
| 54 | Student 2A, BCU | "The university sort of brings all these external things into the internal environment because of the services they provide, and how they interact with the other businesses into the university [such as Starbucks] ... now university has made me understand that I need this entrepreneurial skill, not just as an entrepreneur, but also to be manager or be successful in anything." | "The university ... brings all these external things into the internal environment ..." | Describes how universities integrate external business resources into their learning environments to enhance both entrepreneurial and managerial skills and experiences. | Integration of external resources, Skill development, Managerial competencies | Integrating External Resources into Education | Leveraging External Resources & environment |
| Depth of Entrepreneurship Knowledge and Practical Application | | | | | | | |
| 55 | Student 2, BCU | "Before coming to university, when we were in sixth form, we knew entrepreneurship was just basic information and I feel if I didn't come to university, I would not know the depth of how much it goes to. When you study entrepreneurship and what comes with it, the knowledge... when you do the course at university, it helps you learn a lot of stuff like extra | "Before coming to university ... we knew entrepreneurship was just basic information and I feel if I didn't come to university, I would not know the | Emphasises the comprehensive knowledge gained through university education, which significantly deepens understanding of entrepreneurship and | Knowledge acquisition, Mindset shaping, Comprehensive understanding | Comprehensive Knowledge Development | Role of Higher Education in Shaping entrepreneurship mindsets, that lead to students actually starting their own |

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| | | skills about the customers about the demand how to set-up and what kind of things you would need like finances and what kind of digital stuff you would need. But if I had not come to University, I would not know that. So, I feel it's very important because that helps you a lot to shape your mindset towards entrepreneurship." | depth... university... helps you learn a lot of stuff ... helps ... to shape your mindset towards entrepreneurship." | shapes entrepreneurial mindset. | | | businesses or expanding family businesses |
| 56 | Student 2, BCU and MUBS Focus Group | "... you should expand your business, but you can't do it without having knowledge and the ability to do so. For example, at university, we went deep into understanding what a business plan is, and currently, I know how a business plan looks like, then a business model canvas and how to expand the market. As I speak now, we managed to convince my mom to have the business go on to Kampala town and open up a branch and we are running a branch in Kampala and supplying juice to people in Nakasero market." | "... you should expand your business, but you can't do it without having knowledge and the ability to do so... we managed to convince my mom to have the business go on to Kampala town and open up a branch and we are running a branch in Kampala and supplying juice to people in Nakasero market." | Illustrates the application of entrepreneurial knowledge from university courses to real-life business expansion and market penetration. | Practical application, Business planning, Market expansion, Family Business | Applying Knowledge to Real-World Business Expansion | |
| Building Confidence and Soft Skills | | | | | | | |
| 57 | Student 7, BCU/MUBS Focus Group | "...before I came to university, I wouldn't say [I was] confident. I was a bit reserved. So, I feel like university really opened that door for me ... like why are you scared? Nothing is not going to bite you... why are you afraid of presenting and everything else? ... right now, every time I do a presentation, I don't need to be scared ... oh they are going to laugh ... oh you don't know what you're saying ... like I can literally feel free. I'm not scared. I think that is really, really important ... confidence is really key, especially in entrepreneurship." | "before I came to university, I wouldn't say [I was] confident. I was a bit reserved... university really opened that door for me ... confidence is key, especially in entrepreneurship." | Highlights the development of confidence as a critical skill gained from university, essential for entrepreneurship. | Soft skills, Confidence building, Overcoming fear, Presentation skills | Building Confidence and Presentation Skills | Role of Higher Education in enhancing soft skills |
| Diversity and Exposure to New Ideas | | | | | | | |

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| 58 | Student 3A | "To me I think the environment at campus can make someone a good entrepreneur. For instance, me I'm from west Buganda (Lyantonde), but when I was still there from my childhood to senior six, I couldn't generate some good ideas about business. I couldn't think in that direction, it may be due to the culture, the support from your relatives ... so and so will help me, so and so will help me ... but when I came to Kampala to study, I found many different cultures at campus, different people, different friends ... from those friends, it's where I got my ideas. Campus life (and) campus education has helped me a lot than the other environment." | "To me I think the environment at campus can make someone a good entrepreneur... Campus life (and) campus education has helped me a lot than the other environment." | Discusses the influence of a diverse university environments on generating entrepreneurial ideas and fostering an entrepreneurial mindset. | Cultural diversity, Multiplicity, Idea generation, Entrepreneurial environment | Influence of Diversity on Idea Generation | Role of Diversity, university environment and exposure in shaping entrepreneurship |
| 59 | Student 2A, MUBS | "I believe the environment of MUBS is favouring. It can mould someone into a better entrepreneur... yeah, people are allowed to trade inside school. I think for student in MUESA, they can easily trade in school. People don't base on cultures here. People relate with one another you can talk to anyone you feel like people are not biased about cultures you can trade things with others regardless of cultures and background." | "I believe the environment of MUBS is favouring. It can mould someone into a better entrepreneur..." | Highlights the supportive environment at MUBS that allows students to engage in entrepreneurship and trade without hinderances or cultural biases. | Supportive environment, University Policy, Cultural inclusivity, Entrepreneurial opportunities | Supportive and Inclusive Environment | |
| e) Lecturer Perspectives: Role of University Environment vs The Family and Community in Shaping Entrepreneurship aspirations | | | | | | | |
| 60 | Lecturer 6, MUBS | "We need to provide our students with those skills... everything is about practicing and practicing and practice." | "... everything is about practicing and practicing and practice." | Stresses the importance of practice-based learning for acquiring entrepreneurial skills. | Practice-based learning, Skill acquisition, Hands-on experience | Emphasis on Practice-Based Learning | Emphasis on Practice-Based Learning |
| 61 | Lecturer 6, MUBS | "I think the estimate is about ... maybe even 80%. Because if I could give you an example that I was teaching one class and I asked a class of 52 students. They were doing [activities] in a business class. I asked them, 'how many of you thought of this course before coming to the university?' I got two people. The rest said we are here accidentally. We wanted something else but then something else came and we decided to take it on. Even their parents say I want you to be a doctor before even they go to university - they give them careers by force because they see a neighbour | "parents say I want you to be a doctor before even they go to university - they give them careers by force... So, this one is a big contributor." | Reflects on the influence of parental and societal expectations on students' career choices, often leading them to entrepreneurship by chance rather than deliberate choice. | Parental influence, Societal expectations, Career choice | Influence of External Expectations on Career Choices | The role of the University Environment vs The Family and Community in Shaping Entrepreneurship aspirations |

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| | | has a lawyer they also come and say I also want to get a lawyer. So, this one is a big contributor." | | | | | |
| | | f) Leadership and Institutional Support | | | | | |
| 62 | BCU Lecturer 3 | "I mean I'm new to university - I have been here a few months. But coming in. I think already I have seen a lot of changes around the infrastructure and with the business advice centre it's going to be positive... uhm... I think the degree of flexibility with other lecturers as well - that we can bring people in ... uhm ... acting to the local communities through the small projects that we were doing." | "I think the degree of flexibility with other lecturers ... acting to the local communities through the small projects that we were doing." | Discusses the role of infrastructure and institutional support in enhancing entrepreneurship education, including flexibility and community engagement. | Institutional support, Infrastructure development, Community engagement | Institutional Support and Infrastructure Development | Role of community and university institutional support structures in shaping entrepreneurship |
| | | g) The Congruence Between the University and The Wider Ecosystem | | | | | |
| 63 | Student 8, MUBS | "I believe at university we do get the knowledge and, of course, the confidence to go and take on these opportunities. But I have taken on a few ventures into entrepreneurship, and it's a little bit different out there because when you are at university, it's a smooth line—it's basically learn this and that, I know that, so I can do it. But there are very many elements outside in the other ecosystem, so it challenges you a little. So, you must be more than diverse to take on the ecosystems outside. So, I believe there is a lot to learn outside, and university just prepares you to put you there; it gives you the understanding, but it's quite different outside." | "... when you are at university, it's a smooth line—it's basically learn this and that, I know that, so I can do it. But there are very many elements outside in the other ecosystem, so it challenges you a little. So, you must be more than diverse to take on the ecosystems outside. So, I believe there is a lot to learn outside, and university just prepares you." | Highlights the gap between theoretical knowledge gained at university and the practical challenges faced in the external entrepreneurial ecosystem. | Knowledge vs. real-world challenges, Ecosystem diversity, Practical application | Bridging Knowledge with Real-World Challenges | Acknowledgement that the university environment and the external ecosystem are different, and to succeed requires flexibility and adaptability. |
| | | Culture | | | | | |
| | | Overall Influence of Cultural Background on Entrepreneurial Mindsets | | | | | |

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| 64 | Student 7A, MUBS | "I would say that culture doesn't have a contribution towards my entrepreneurship skills. For example, am from the central and we have that aspect of respecting people. So, when you go out to make a business, you should know, at the back of your mind, that you have to respect your customers so that you can probably attract more people into your business or something like that. So, for me, it contributes a lot to the business. Then coming back to the university, the cultural aspects at the university it just builds on what you have come up with from your grassroots because at university they just tell you how to manage the business and even though they will tell you about respect for the customers but you have to come with it from the roots and that how culture has contributed to my entrepreneurial skills." | "it contributes a lot to the business... the cultural aspects at the university just builds on what you have come up with from your grassroots ... That's how culture has contributed to my entrepreneurial skills" | Argues that cultural upbringing influences entrepreneurial skills indirectly, especially in areas like customer relations and respect, which are reinforced at the university level. | Cultural upbringing, Customer relations, Respect | Influence of Cultural Upbringing on Skills | The cultural background of students before they come to university affects the extent to which they are likely to be entrepreneurial due to prior experiences. |
| 65 | Student 8A, MUBS | "I am from the North. My take on culture is that in Uganda, currently, we are very rich in culture and being from the North and studying in the central a little bit narrows the cultural influence that I have from home because being that am in the central, am going to meet very many other people from the West or from the East and at the end of the day you [are] going to realise that you must embed each and everyone's cultural beliefs so that you don't offend your clients in anyway. So I believe there is an aspect of culture, but it also depends on how much you have taken on as an individual [before you come to university] because if am from the North and I choose to exhibit only and only the things I was taught back home and still chose to take on business strictly on those elements, I may in some way, or the other, not be able to cover for my clients from the East or from the Central and at the end of the day, you realise that with culture you must be able to be diverse and know something from everywhere and be able to handle your clients in a way they are extremely comfortable. So, I believe culture as an element, is more or less very useful but it does | I believe there is an aspect of culture, but it also depends on how much you have taken on as an individual [before you come to university] ... but you must be able to understand and respect each and every culture and appreciate it so that you can effectively manage your clients." | Emphasises the need for cultural flexibility and understanding in entrepreneurship to manage diverse client expectations effectively. | Cultural flexibility, Client management, Diversity appreciation | Cultural Flexibility in Client Management | |

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| | | not tie you down to particularly your culture. You must be able to understand and respect each and every culture and appreciate it so that you can effectively manage your clients." | | | | | |
| 66 | Lecturer No 5, MUBS | "“I've given this example over and over again of my village mate who called me and said, 'my son did not graduate'. I checked his results, and he had scored a second class upper. So, I asked him, 'why do you think he did not graduate'? He said it's because he is selling popcorns. So now that takes me back to the background ... he is thinking he should be a banker - he should be something else, not necessarily an entrepreneur - and more so, selling popcorns" | "... my village mate who called me and said, 'my son did not graduate'... he should be a banker - he should be something else, not necessarily an entrepreneur - and more so, selling popcorns" | Discusses societal expectations and the stigma attached to certain types of businesses, impacting entrepreneurial choices and perceptions. | Societal expectations, Societal Biases, Business stigma, Career perception | Societal Expectations and Career Perceptions | |
| Ethnicity and Societal Norms (continued) | | | | | | | |
| 67 | Student 12, BCU, Combined Focus Group | "I think culture is very important. For example, in most ethnic minority groups in the UK, if you come from an ethnic minority, you know you have to push yourself a little harder compared to your white counterparts. For example, I am Ghanaian. I was born in Ghana, moved to Italy after birth, and then moved to the UK. I didn't know much about my culture in Ghana, but when I went back during holidays, I saw the difference between developed and undeveloped parts. This made me realise why so many black Africans and black Arabians raised in Africa or third-world countries are so pushy at being entrepreneurs when they come to first-world countries. They know that if they don't push themselves as hard as others, the place they will come back to is not favourable. So, I think culture is very important." | "This made me realise why so many black Africans and black Arabians raised in Africa or third-world countries are so pushy at being entrepreneurs when they come to first-world countries. They know that if they don't push themselves as hard as others, the place they will come back to is not favourable" | Highlights how cultural background, particularly hardships in the ethnic minority communities, influences the drive and resilience in entrepreneurship due to the perceived need to work harder and overcome barriers. | Necessity entrepreneurship, ethnic minority experience, Cultural resilience, Entrepreneurial drive | Ethnicities encounter barriers in Entrepreneurship | Resilience as a result of cultural and Social Influences |
| 68 | BCU Student 4 | "I think culture is extremely important because I am mixed race. My dad is from the UK, and my mom is from Liberia. I have noticed that both my parents have businesses. But with my mom's side, a lot of her friends and family have or had businesses, or they have a 'side hustle.' I think it is something that's quite big in their culture. On my dad's side, fewer people | "... in certain cultures, having a business can be like a social status thing to show that you own something." | Highlights the influence of cultural background and family dynamics on entrepreneurial activities, including the role of side hustles and entrepreneurship as a status | Cultural influence, Family entrepreneurship, Social status | Cultural Influence on Entrepreneurial Activities | |

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| | | have businesses. Even when my mom moved to the UK, instead of getting a job, she decided to start her own business. So, I think culture is a big aspect there. Also, in certain cultures, having a business can be like a social status thing to show that you own something." | | symbol. | | | |
| 69 | Student Number 11, MUBS | "I don't think culture shapes entrepreneurs because if we were to go back in time and consider women or mothers, they were more of caretakers of the homes and then men would go out to provide so I don't think that has had an effect on women being entrepreneurs today. I don't think culture has really had much of an effect." | "I don't think culture shapes entrepreneurs because if we were to go back in time and consider women or mothers, they were more of caretakers..." | Challenges the idea that culture significantly influences entrepreneurial development, particularly for women, by arguing that traditional roles do not necessarily impact modern entrepreneurship. | Cultural neutrality, Gender roles, Entrepreneurship | Debating Cultural Impact on Entrepreneurship | |
| Family Background / Pre-University Environmental Factors | | | | | | | |
| 70 | Student 3A, BCU | "... generally, I think culture, because every entrepreneur ... their mindset is based on how they grew up, and where they grew up, because most of these very big entrepreneurs - most of their families were literally like businessmen - I feel like it's more of where we grow around - like student number two said something about youth clubs and all that other stuff" | "... culture, because every entrepreneur ... their mindset is based on how they grew up... most these very big entrepreneurs ... their families were literally like businessmen" | Suggests that an entrepreneur's mindset is significantly shaped by their cultural background and family environment. | Cultural background, Family influence, Mindset shaping | Impact of Cultural Background on Mindset | Family has a strong influences on the development of practical entrepreneurship skills and attitudes. |
| 71 | Student 5A, MUBS | "...the problem here we have, I will call it the culture. We have different cultures in Uganda...you'll find yourself in a different area and you realise that the kind of business or the venture you can begin from there cannot apply [in another area] where we still have some people with different beliefs...you even find you are from a family and the family is like 'for us we can't deal with such stuff'." | "I will call it the culture... the kind of business or the venture you can begin from there cannot apply [in another area] where we still have some people with different beliefs... the family is like 'for us we can't deal with such stuff'." | Points out the challenges that arise from cultural differences within Uganda, affecting the type of businesses that can be successfully established. | Cultural barriers, Family influence, regional diversity, Business adaptability | Navigating Cultural Differences in Business | |

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| 72 | Lecturer 2, MUBS | "...for example, those who grew up in their father's businesses or those who've worked in such markets... [A student] then says that rather than sitting in someone's office and you're giving me one hundred thousand shillings, why shouldn't I make my own business and maybe I start something bringing in much money?" | "... those who grew up in their father's businesses ... why shouldn't I make my own business" | Reflects on the influence of family businesses and early exposure to entrepreneurship in shaping entrepreneurial aspirations and motivations. | Family business influence, Early exposure, Entrepreneurial aspirations | Impact of Family Business on Entrepreneurial Intent | Family has a strong influences on the development of practical entrepreneurship skills and attitudes. |
| 73 | Student 1A, BCU | "... my father is a builder by trade. He left school to join carpentry. So, he's always been a part of woodwork and he's got his own business. He built quite a lot of houses, has done extensions of woodwork. I'm a practical-based learner so I've always been in the environment of working on my dad's building sites so that's what later brings entrepreneurship skills." | "... I'm a practical-based learner so I've always been in the environment of working on my dad's building sites so that's what later brings entrepreneurship skills." | Emphasises the role of early exposure to family business and hands-on experience in developing practical entrepreneurial skills. | Hands-on experience, Family business influence, Practical learning | Early Exposure and Practical Learning | |
| 74 | Student 4, MUBS | "I think recently with one of my modules, I had to write a business plan, so that was a good experience. But I think overall, it's what has happened outside of university that has inspired me. My mum owns her own business, and I have a family that has started their own businesses, so I have seen it from that perspective, and that has influenced me a little bit more because I have actually pictured what can happen." | "... it's what has happened outside of university that has inspired me. My mum owns her own business, and I have a family that has started their own businesses, so I have seen it from that perspective." | Suggests that while university education is valuable, real-world experiences, particularly from family-owned businesses, are more influential in shaping entrepreneurial ambitions. | Real-world experience, Family influence, Business exposure | Impact of family on entrepreneurship ambition | |
| 75 | Student 6A, MUBS | "Luckily or unluckily, I'm nurtured by a single mother. I would love to quote one successful entrepreneur who said 'necessity is the mother of innovation'. It reached a point when I have to go to school, I have to make sure tooth or nail I have to get my ka pocket money. I had to make sure that I utilise the opportunities around me to see that at least I make sure that I get some ka portion to go to school. Because I was nurtured by a single mother, she had a lot of responsibilities. So, I had to make sure that every opportunity that I see, I learn from it, I utilise it and see that I successfully gain something from it. By that I was | "Because I was nurtured by a single mother, she had a lot of responsibilities. So, I had to make sure that every opportunity that I see, I learn from it, I utilise it and see that I successfully gain something from it." | Describes how necessity and a challenging upbringing fostered entrepreneurial skills and a proactive approach to seizing opportunities. | Necessity-driven entrepreneurship, Resourcefulness, Opportunity-seeking, Family Influence. | Family background, necessity and resourcefulness in entrepreneurship | |

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| | | becoming an entrepreneur - illiterate but which was true. I believe the world outside [made me more entrepreneurial] than campus." | | | | | |
| 76 | BCU Student 1 | "I've always been a practical-based learner. University has given me the confidence and understanding to put my foot through the door and proceed with building entrepreneurial skills. The experiences with my father also shaped my interest in entrepreneurship." | "I've always been a practical-based learner... The experiences with my father also shaped my interest in entrepreneurship." | Highlights the importance of practical learning and family's role in early exposure to entrepreneurship | Practical learning, Confidence building, Early exposure, Family Influence. | Practical Learning and Family Influence | |
| 77 | Student 4, MUBS and BCU Combined | "With one of my modules, I had to write a business plan. Overall, it's what happened outside of university that inspired me. My mum owns her own business, and I have a family that started their own businesses. Seeing it from that perspective influenced me more because I could picture what could happen." | "With one of my modules, I had to write a business plan. Overall, it's what happened outside of university that inspired me..." | Suggests that real-life exposure, particularly from family-owned businesses, had a greater impact on entrepreneurial ambitions than academic modules. | Family influence, Real-life exposure, Business planning | Impact of Family and Real-Life Exposure | |
| | | Supports: The Role of Community | | | | | |
| | | Importance of Environmental Awareness and Market Knowledge | | | | | |
| 78 | Student 2, BCU1 | "I do think that this environment here has contributed to building some of these skills. For example, creativity for me was built in youth clubs that I attended when I was younger which was supported by institutes and over local businesses and through those other opportunities that I've had through the environment. I was able to gain school scholarships and leadership and critical analysis when I was in school as well. And yeah, having these influences around you ... what you want to do in the future ... it is like for example role models." | "creativity for me was built in youth clubs that I attended when I was younger ... [and] other opportunities that I've had through the environment" | Discusses how various community and educational experiences contribute to developing entrepreneurial skills such as creativity, leadership, and critical analysis. | Community influence, Skill development, Role models | Impact of Community and Education on Skill Development | Role of Market and Environmental Awareness in Entrepreneurship |
| 79 | Student 6, MUBS and BCU Combined | "Being an entrepreneur, you need to be well informed about the environment, you need to know the people that you are going to exactly target when starting up a business. You need to know the community you are going to target and the people that are going to be your customers, and then you need to be informed about the various things that are happening in the world" | "You need to know the community you are going to target and the people that are going to be your customers, and then you need to be informed about the | Emphasises the importance of environmental awareness, market knowledge, and community understanding in entrepreneurship. | Market knowledge, Community understanding, Environmental awareness | Importance of Market and Environmental Awareness | |

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| | | | various things that are happening in the world" | | | | |
| 80 | Student 9, MUBS and BCU Combined Group | "I feel it's more about the development of the country because the more developed a country is the more culture bends towards the leniencies because you're surrounded by more people who you can look up to or that will help you move forward..." | "The more developed a country is the more culture bends towards the leniencies ... that will help you move forward". | Suggests that cultural attitudes toward entrepreneurship are more supportive in developed countries, facilitating greater entrepreneurial ambition and support networks. | Cultural attitudes, Development level, Support networks | Impact of Development Level on Entrepreneurial Culture | |
| 81 | Student 2, MUBS and BCU Combined | "I believe at university, you are prepared for the real business world by being given valuable information. However, effectiveness comes from being exposed to external factors. For example, when I joined Nakasero market, I engaged with people who had started similar businesses, and this interaction boosted my ability to push forward the business." | "... effectiveness comes from being exposed to external factors." | Highlights the role of university education in providing foundational knowledge while emphasising the importance of real-world engagement and networking for entrepreneurial success. | Foundational knowledge, Real-world engagement, Networking | Bridging Education with Practical Experience | |
| | | University as a Community | | | | | |
| 82 | Student 5, MUBS and BCU Combined | "I can give a clear example like in Makerere University, the teaching model is flexible. It allows a student to study while conducting a business outside the university. Personally, I was studying from 5:30 to 9:30 pm, and the remaining hours I was ready for business. It's all about mindset and goals—what you want to achieve after university." | "... the teaching model is flexible. It allows a student to study while conducting a business outside the university." | Illustrates the flexibility of university schedules that support entrepreneurial activities alongside formal education. | Flexible education, Entrepreneurial mindset, Goal setting | Flexible Learning and Entrepreneurial Mindset | Highlights the role of the Higher Education community in Shaping Entrepreneurship |
| 83 | Student 2, BCU | "Before coming to university, when we were in sixth form, entrepreneurship was just basic information. I feel if I didn't come to university, I wouldn't know the depth of it. The knowledge from the course helps you learn about customers, demand, finances, and digital tools. University is very important because it helps shape your mindset towards entrepreneurship." | "... University is very important because it helps shape your mindset towards entrepreneurship." | Highlights how university education deepens understanding of entrepreneurship beyond basic knowledge, covering customers, demand, and digital tools. | Advanced education, Customer understanding, Mindset shaping | Deepening Understanding through Higher Education | |
| | | Government / Policy | | | | | |
| 84 | Lecturer No 7, MUBS | "...the president was meeting the staff last week he was telling them you guys can you use your courses to | "... how can you promote wealth | Stresses the need for integrating entrepreneurial | Entrepreneurial mindset, | Promoting Entrepreneurial | Role of Policy in Shaping |

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| | | promote wealth creation. But how can you promote wealth creation using academic programs without having entrepreneurial mind-sets? So, if it is a government policy right from the ministry of education that you guys going to study pharmacy, after studying pharmacy you need to do entrepreneurship to be very competent... but without it, that's why we are having all these [unemployment challenges]." | creation using academic programs without having entrepreneurial mind-sets?" | mindset of lecturers into various academic programs to enhance employability and promote wealth creation. | Academic integration, Wealth creation | Mindset through Policy | Entrepreneurship Education |
| | | ICT / Digital Landscape / Social Media | | | | | |
| 85 | Student 6, MUBS and BCU Combined | "To a higher extent, social media has helped in the growth on the entrepreneur[ship] skills because there is a high number of people on social media. Then with also the influencers, plus the other companies, you get to learn different things on how to put your business out there for the people to view what you are selling or what you're doing." | "To a higher extent, social media has helped in the growth on the entrepreneur[ship] skills." | Highlights the role of social media in enhancing entrepreneurial skills by providing platforms for learning, marketing, and engagement. | Social media, Influencers, Marketing skills, Digital engagement | Leveraging social media for Entrepreneurial Growth | The internet, ICT and Digital Platforms, especially social media play a very important role in the development of entrepreneurship skills |
| 86 | Student 2, MUBS and BCU Combined | "The internet has played a big role especially in the entrepreneur world for example as a business person, the internet enables you to produce creative sharable content to the audience since you have access to various social media platforms, you are able to post, advertise your business and this captures a lot of attention from the people but also through the internet you have an opportunity to engage with the customers and find out what people are saying about your business. For example, if you do posts let's say on TikTok, Twitter, there is a provision where you get feedback from you clients, and this quickly enables you to manage your business. And you eventually learn entrepreneurship skills on-the-go just by being online." | "The internet has played a big role especially in the entrepreneur world ... And you eventually learn entrepreneurship skills on-the-go just by being online." | Describes how the internet and social media facilitate learning and skill development in entrepreneurship, enabling direct engagement with customers and rapid business adaptation. | Social media, Internet influence, Customer engagement, Digital marketing | Digital Skills and Market Adaptation | |
| 87 | Student 9, MUBS and BCU Combined | "You also need to have a lot of digital skills because things are going digital, so you need to know a lot about the digital market and have good social media skills" | | Highlights the critical need for digital skills and market awareness in modern entrepreneurship. | Digital skills, Market awareness, Customer knowledge | Digital Skills and Digital Market Awareness | |

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| 88 | Student 5, MUBS and BCU Combined | "Personally, from what I see from my feeds on social media, I follow quite a of social media accounts specifically small business accounts and have noticed the recent trend currently that people have actually started making E-books on how to actually start a business and I actually bought one of the E-books myself, and in the E-book, they actually highlight the key skills that are required to actually start their own business. So, I think you can get just as much knowledge as you need from entrepreneurship [classes at university] but you can also get the same amount of knowledge on social media. University is all in one place, whereas on social media you see multiple aspects such as the E-books they publish, or the posts and how they interact with their followers and engagement levels. I think it is quite important especially nowadays that you should turn to the internet to also see what other people are doing and reflect on your own skills." | "... you can get the same amount of knowledge on social media. University is all in one place, whereas on social media you see multiple aspects such as the E-books they publish, or the posts and how they interact with their followers and engagement levels. I think it is quite important especially nowadays that you should turn to the internet to also see what other people are doing and reflect on your own skills." | Illustrates how social media serves both as a standalone, and as a complementary platform to university education, offering diverse resources for entrepreneurial learning and reflection. | Online learning, Resource diversity, Self-reflection | Enhancing Learning through Digital Resources | The internet, ICT and Digital Platforms, especially social media play a very important role in the development of entrepreneurship skills |
| 89 | Student 1, MUBS and BCU Combined | "...many entrepreneurs have to make their own content, they have to market themselves and have to open social media sites for their products. I believe the internet has done greatly to improve the skills because as someone that follows all these entrepreneurs, you can be learn new skills and be inspired to use different apps to develop your own products and services. this improves their skill set." | "...the internet has done greatly to improve the skills because as someone that follows all these entrepreneurs, you can be learn new skills and be inspired to use different apps to develop your own products and services." | Emphasises the role of self-driven digital content creation in developing entrepreneurial skills, highlighting the benefits of following other entrepreneurs online. | Content creation, Self-marketing, Digital skill development | Digital Entrepreneurship Skills becoming important | |
| 90 | Student 4, MUBS and BCU Combined | "I think the internet and social media has inspired other people that weren't entrepreneurial but have now become [entrepreneurial] because they can see what other people have done." | "I think the internet and social media has inspired other people that weren't entrepreneurial but | Suggests that social media and the internet inspire non-entrepreneurs to pursue entrepreneurship by showcasing success stories | Inspiration, Success stories, Entrepreneurial motivation, Digital Inspiration | Inspiring Entrepreneurial Aspirations through digital platforms | |

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| | | | have now become [entrepreneurial]..." | and possibilities. | | | |
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9.17.2 FULL WORD LIST AND FREQUENCY OF USAGE FROM FOCUS GROUP INTERVIEWS

KEY

| | |
|---------------------------|------------------------------|
| BCU (S) | BCU Students |
| MUBS (S) | MUBS Students |
| BCU & MUBS (S) | BCU & MUBS Students Combined |
| BCU (L1) | BCU Lecturers (Group 1) |
| BCU (L2) | BCU Lecturers (Group 2) |

| Word | Chr Length | BCU (S) | MUB S (S) | MUBS & BCU (S) | MUB S (L) | BCU (L1) | BCU (L2) | Total |
|-----------------|------------|---------|-----------|----------------|-----------|----------|----------|-------|
| Abaho | 5 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Abenaitwe | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Abide | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Able | 4 | 1 | 15 | 23 | 22 | 27 | 13 | 101 |
| Absent | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Absolutely | 10 | 1 | 0 | 0 | 1 | 1 | 1 | 4 |
| Abut | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Academia | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Academicians | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Accept | 6 | 0 | 1 | 0 | 0 | 1 | 1 | 3 |
| Accepted | 8 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Access | 6 | 0 | 3 | 1 | 0 | 5 | 4 | 13 |
| Accessed | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Accidentally | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Accompanied | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Accordance | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| According | 9 | 0 | 4 | 6 | 0 | 0 | 1 | 11 |
| Account | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Accounting | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Accounts | 8 | 0 | 1 | 2 | 0 | 0 | 0 | 3 |
| Achieve | 7 | 1 | 9 | 4 | 0 | 1 | 1 | 16 |
| Achieving | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Acknowledge | 11 | 0 | 0 | 1 | 1 | 6 | 3 | 11 |
| Acknowledged | 12 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Acknowledgement | 15 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Acknowledges | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Acknowledging | 13 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Acquire | 7 | 4 | 4 | 7 | 0 | 2 | 1 | 18 |
| Acquired | 8 | 1 | 3 | 1 | 1 | 0 | 0 | 6 |
| Acquiring | 9 | 2 | 4 | 1 | 0 | 0 | 0 | 7 |
| Acquisition | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Acquisitions | 12 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Acronyms | 8 | 1 | 1 | 0 | 1 | 0 | 1 | 4 |
| Across | 6 | 0 | 0 | 0 | 3 | 1 | 4 | 8 |

| | | | | | | | | |
|-----------------------|----|----|----|----|----|----|----|-----|
| Act | 3 | 0 | 0 | 0 | 2 | 0 | 2 | 4 |
| Acting | 6 | 0 | 0 | 1 | 0 | 0 | 2 | 3 |
| Action | 6 | 6 | 15 | 4 | 29 | 21 | 2 | 77 |
| Actions | 7 | 0 | 5 | 0 | 0 | 0 | 0 | 5 |
| Actively | 8 | 0 | 0 | 1 | 0 | 2 | 0 | 3 |
| Activities | 10 | 2 | 1 | 8 | 6 | 6 | 3 | 26 |
| Activity | 8 | 0 | 0 | 1 | 1 | 2 | 1 | 5 |
| Actors | 6 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Acts | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Actual | 6 | 0 | 0 | 6 | 1 | 4 | 0 | 11 |
| Actually | 8 | 25 | 5 | 30 | 37 | 32 | 26 | 155 |
| Ad | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Adapt | 5 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Adaptable | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Addition | 8 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Adequate | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Adjusted | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Administration | 14 | 0 | 1 | 0 | 8 | 0 | 0 | 9 |
| Admit | 5 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Adoptable | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Adopted | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Adoption | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Advantage | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Adversity | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Advertise | 9 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Advertising | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Advice | 6 | 0 | 1 | 0 | 0 | 4 | 0 | 5 |
| Advise | 6 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Affect | 6 | 1 | 1 | 1 | 7 | 8 | 4 | 22 |
| Affected | 8 | 1 | 0 | 2 | 0 | 2 | 0 | 5 |
| Affecting | 9 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Affects | 7 | 0 | 0 | 1 | 4 | 1 | 1 | 7 |
| Afford | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Afraid | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Africa | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| African | 7 | 2 | 1 | 1 | 0 | 0 | 0 | 4 |
| Africans | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Afternoon | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Age | 3 | 2 | 3 | 4 | 0 | 0 | 0 | 9 |
| Agencies | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Agency | 6 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Agendas | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Ago | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Agree | 5 | 5 | 22 | 20 | 19 | 30 | 7 | 103 |
| Agreed | 6 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Agreeing | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Agreement | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Agrees | 6 | 0 | 0 | 1 | 2 | 0 | 0 | 3 |

| | | | | | | | | |
|--------------|----|----|----|----|----|----|----|-----|
| Aguma | 5 | 1 | 2 | 2 | 2 | 1 | 1 | 9 |
| Ahead | 5 | 1 | 2 | 11 | 4 | 0 | 0 | 18 |
| Ahm | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Aid | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Aim | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Aimed | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Aiming | 6 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Aims | 4 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Ajambo | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Akangura | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Albert | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Ali | 3 | 6 | 0 | 0 | 0 | 0 | 0 | 6 |
| Alike | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Allow | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Allowed | 7 | 0 | 2 | 1 | 1 | 0 | 0 | 4 |
| Allowing | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Allows | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Almost | 6 | 1 | 0 | 1 | 8 | 26 | 38 | 74 |
| Alone | 5 | 0 | 2 | 0 | 1 | 1 | 1 | 5 |
| Along | 5 | 1 | 0 | 2 | 1 | 0 | 1 | 5 |
| Already | 7 | 0 | 9 | 4 | 3 | 2 | 1 | 19 |
| Alright | 7 | 0 | 0 | 5 | 0 | 0 | 1 | 6 |
| Also | 4 | 15 | 13 | 64 | 39 | 25 | 32 | 188 |
| Alternative | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Alternatives | 12 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Although | 8 | 0 | 0 | 2 | 0 | 3 | 2 | 7 |
| Altogether | 10 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Always | 6 | 9 | 0 | 0 | 5 | 9 | 8 | 31 |
| Amayo | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Amazing | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Amazon | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Ambition | 8 | 2 | 0 | 1 | 0 | 0 | 2 | 5 |
| Ambitioning | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ambitions | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Among | 5 | 0 | 1 | 1 | 1 | 0 | 2 | 5 |
| Amongst | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Amos | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Amount | 6 | 1 | 0 | 3 | 0 | 0 | 1 | 5 |
| Amplify | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Analogue | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Analyse | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Analysis | 8 | 2 | 0 | 5 | 3 | 2 | 3 | 15 |
| Analytical | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Analyzing | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Angel | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Animal | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Anonymised | 10 | 0 | 4 | 0 | 0 | 0 | 0 | 4 |
| Anonymity | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |

| | | | | | | | | |
|----------------|----|----|---|---|----|----|----|----|
| Anonymous | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Another's | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Anticipate | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Anybody | 7 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Anymore | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Anyone | 6 | 1 | 2 | 9 | 3 | 1 | 0 | 16 |
| Anything | 8 | 3 | 2 | 8 | 0 | 5 | 1 | 19 |
| Anytime | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Anyway | 6 | 0 | 1 | 1 | 1 | 0 | 3 | 6 |
| Anywhere | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Apart | 5 | 0 | 0 | 1 | 2 | 0 | 2 | 5 |
| Apologies | 9 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| App | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Application | 11 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Applications | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Applied | 7 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Apply | 5 | 3 | 1 | 2 | 0 | 0 | 1 | 7 |
| Applying | 8 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Appreciate | 10 | 0 | 0 | 1 | 1 | 2 | 0 | 4 |
| Appreciated | 11 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Appreciates | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Appreciating | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Apprenticeship | 14 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Approach | 8 | 0 | 0 | 0 | 0 | 3 | 3 | 6 |
| Approve | 7 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Approved | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Apps | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Arabians | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Aren't | 6 | 0 | 1 | 0 | 1 | 0 | 1 | 3 |
| Argue | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Arinda | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Around | 6 | 11 | 4 | 8 | 7 | 11 | 8 | 49 |
| Arrangement | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Arrangements | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Arrive | 6 | 0 | 0 | 0 | 1 | 4 | 0 | 5 |
| Arrogance | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Articles | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Articulate | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Asian | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Asians | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Ask | 3 | 1 | 1 | 5 | 7 | 2 | 1 | 17 |
| Asked | 5 | 1 | 1 | 1 | 8 | 7 | 7 | 25 |
| Asking | 6 | 5 | 2 | 1 | 3 | 0 | 3 | 14 |
| Aspect | 6 | 1 | 0 | 6 | 5 | 4 | 0 | 16 |
| Aspects | 7 | 1 | 4 | 2 | 10 | 14 | 18 | 49 |
| Aspirational | 12 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Aspirations | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Assessment | 10 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |

| | | | | | | | | |
|----------------------|----|---|---|----|----|----|---|----|
| Assessments | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Asset | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Assignment | 10 | 0 | 0 | 2 | 4 | 0 | 1 | 7 |
| Assignments | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Assistant | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Associate | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Associated | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Association | 11 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Assume | 6 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Assuming | 8 | 1 | 0 | 0 | 0 | 0 | 2 | 3 |
| Assumptions | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Aston | 5 | 0 | 0 | 0 | 0 | 2 | 3 | 5 |
| Attach | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Attain | 6 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Attained | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Attend | 6 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Attended | 8 | 2 | 0 | 1 | 0 | 0 | 0 | 3 |
| Attending | 9 | 2 | 0 | 0 | 0 | 1 | 0 | 3 |
| Attention | 9 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Attitude | 8 | 0 | 2 | 0 | 1 | 0 | 0 | 3 |
| Attitudes | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Attract | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Attribute | 9 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Attributes | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Audience | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Audio | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Australia | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Authority | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Automated | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Automatic | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Automatically | 13 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Available | 9 | 1 | 0 | 7 | 0 | 0 | 0 | 8 |
| Avenues | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Average | 7 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Avoid | 5 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Awards | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Aware | 5 | 5 | 1 | 0 | 0 | 4 | 2 | 12 |
| Awareness | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Away | 4 | 2 | 0 | 2 | 4 | 1 | 3 | 12 |
| Ayikiriza | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Ba | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Bachelor | 8 | 0 | 0 | 0 | 5 | 0 | 0 | 5 |
| Bachelors | 9 | 0 | 5 | 0 | 11 | 0 | 0 | 16 |
| Back | 4 | 5 | 7 | 14 | 8 | 10 | 5 | 49 |
| Backed | 6 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Background | 10 | 2 | 1 | 4 | 0 | 2 | 1 | 10 |
| Backgrounds | 11 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Backwards | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |

| | | | | | | | | |
|-------------------|----|----|----|----|---|----|----|----|
| Bad | 3 | 0 | 0 | 1 | 3 | 3 | 1 | 8 |
| Bafumbira | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Baganda | 7 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Bakiga | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Balance | 7 | 0 | 2 | 1 | 0 | 4 | 0 | 7 |
| Ban | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Bananas | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Banda | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Bandwidth | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Banker | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Banking | 7 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Banks | 5 | 1 | 1 | 4 | 2 | 0 | 0 | 8 |
| Banyankole | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Banyankore | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Banyoro | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Barely | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Barriers | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Base | 4 | 2 | 2 | 2 | 0 | 0 | 2 | 8 |
| Based | 5 | 5 | 1 | 8 | 9 | 13 | 11 | 47 |
| Basic | 5 | 0 | 1 | 2 | 1 | 2 | 0 | 6 |
| Basically | 9 | 2 | 3 | 3 | 5 | 4 | 1 | 18 |
| Basing | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Basis | 5 | 0 | 0 | 1 | 0 | 1 | 1 | 3 |
| Basket | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Batooro | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Bba | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Bc | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Bcus1 | 5 | 25 | 0 | 0 | 0 | 0 | 0 | 25 |
| Bcus2 | 5 | 16 | 0 | 0 | 0 | 0 | 0 | 16 |
| Bcus3 | 5 | 24 | 0 | 0 | 0 | 0 | 0 | 24 |
| Bcus4 | 5 | 18 | 0 | 0 | 0 | 0 | 0 | 18 |
| Bear | 4 | 0 | 2 | 0 | 1 | 0 | 0 | 3 |
| Became | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Become | 6 | 5 | 6 | 5 | 1 | 2 | 3 | 22 |
| Becomes | 7 | 0 | 0 | 1 | 2 | 3 | 0 | 6 |
| Becoming | 8 | 0 | 3 | 2 | 0 | 2 | 0 | 7 |
| Began | 5 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Begin | 5 | 1 | 4 | 1 | 1 | 0 | 1 | 8 |
| Beginning | 9 | 0 | 2 | 1 | 1 | 1 | 0 | 5 |
| Begins | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Behalf | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Behind | 6 | 0 | 0 | 2 | 2 | 2 | 1 | 7 |
| Beings | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Beliefs | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Believe | 7 | 12 | 17 | 25 | 2 | 8 | 3 | 67 |
| Believed | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Believing | 9 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Bench | 5 | 0 | 1 | 0 | 3 | 0 | 1 | 5 |

| | | | | | | | | |
|-------------------|----|---|---|----|----|---|---|----|
| Bends | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Benefit | 7 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Benefiting | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Best | 4 | 3 | 5 | 1 | 3 | 1 | 2 | 15 |
| Bet | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Better | 6 | 5 | 5 | 10 | 18 | 6 | 4 | 48 |
| Betting | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Beverage | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Beyond | 6 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| Bias | 4 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| Biased | 6 | 0 | 1 | 1 | 0 | 2 | 0 | 4 |
| Bill | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Bills | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Birmingham | 10 | 3 | 2 | 3 | 0 | 3 | 5 | 16 |
| Birmming | 8 | 0 | 0 | 0 | 0 | 0 | 7 | 7 |
| Birth | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Biscuits | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Bitatule | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Bite | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Black | 5 | 2 | 0 | 2 | 0 | 0 | 0 | 4 |
| Blah | 4 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Blessed | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Block | 5 | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| Blue | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Board | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Boards | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Boda | 4 | 0 | 0 | 0 | 5 | 0 | 0 | 5 |
| Bodies | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Body | 4 | 1 | 0 | 0 | 1 | 0 | 1 | 3 |
| Bolts | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Bonny | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Bonus | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Book | 4 | 4 | 1 | 0 | 0 | 1 | 1 | 7 |
| Books | 5 | 0 | 3 | 4 | 2 | 1 | 2 | 12 |
| Boost | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Boosted | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Boot | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Born | 4 | 2 | 3 | 1 | 0 | 0 | 0 | 6 |
| Borrow | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Borrowed | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Bot | 3 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Bother | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Bought | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Box | 3 | 3 | 2 | 2 | 0 | 1 | 0 | 8 |
| Boxes | 5 | 2 | 0 | 0 | 0 | 0 | 2 | 4 |
| Brain | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Branch | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Branson | 7 | 3 | 0 | 0 | 0 | 1 | 1 | 5 |

| | | | | | | | | |
|--------------|----|----|----|-----|----|----|----|-----|
| Break | 5 | 0 | 0 | 0 | 0 | 2 | 6 | 8 |
| Breakdown | 9 | 0 | 0 | 0 | 0 | 3 | 1 | 4 |
| Breakthrough | 12 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Bridge | 6 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Bridging | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Brief | 5 | 0 | 1 | 1 | 1 | 0 | 1 | 4 |
| Briefly | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Briefs | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Bright | 6 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Bring | 5 | 0 | 4 | 1 | 7 | 5 | 4 | 21 |
| Bringing | 8 | 0 | 1 | 1 | 1 | 1 | 3 | 7 |
| Brings | 6 | 4 | 2 | 0 | 2 | 3 | 0 | 11 |
| British | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Broad | 5 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Broader | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Broadly | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Broken | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Brother | 7 | 1 | 0 | 2 | 0 | 0 | 0 | 3 |
| Brought | 7 | 0 | 1 | 0 | 2 | 0 | 0 | 3 |
| Btw | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Budget | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Buganda | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Build | 5 | 1 | 1 | 2 | 0 | 1 | 0 | 5 |
| Builder | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Building | 8 | 2 | 0 | 1 | 0 | 0 | 2 | 5 |
| Builds | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Built | 5 | 2 | 0 | 0 | 0 | 1 | 1 | 4 |
| Bulb | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Bureau | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Bureaucratic | 12 | 0 | 0 | 0 | 2 | 0 | 1 | 3 |
| Burn | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Business | 8 | 32 | 41 | 101 | 60 | 22 | 23 | 279 |
| Businesses | 10 | 2 | 4 | 4 | 17 | 4 | 5 | 36 |
| Busness | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Busy | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Buy | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Buyers | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| C0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Café | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Calculated | 10 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Caliber | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Call | 4 | 1 | 2 | 6 | 2 | 6 | 3 | 20 |
| Called | 6 | 0 | 3 | 3 | 2 | 2 | 1 | 11 |
| Calls | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Cambridge | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Cambridges | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Came | 4 | 7 | 7 | 8 | 7 | 2 | 6 | 37 |
| Camera | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |

| | | | | | | | | |
|-------------------|----|----|----|----|----|----|----|-----|
| Camp | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Campaigns | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Camper | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Campus | 6 | 0 | 12 | 1 | 0 | 0 | 0 | 13 |
| Can | 3 | 15 | 62 | 75 | 59 | 21 | 68 | 300 |
| Can't | 5 | 3 | 6 | 1 | 2 | 8 | 11 | 31 |
| Cane | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Canvas | 6 | 0 | 1 | 3 | 0 | 0 | 0 | 4 |
| Canvases | 8 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Capable | 7 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Capitalize | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Captain | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Capture | 7 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Captured | 8 | 0 | 1 | 0 | 1 | 1 | 0 | 3 |
| Captures | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Car | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Career | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Careers | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Cares | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Caretakers | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Carey | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Caring | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Carried | 7 | 0 | 0 | 1 | 1 | 0 | 1 | 3 |
| Carries | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Carry | 5 | 2 | 0 | 1 | 0 | 2 | 1 | 6 |
| Carrying | 8 | 2 | 0 | 0 | 0 | 0 | 2 | 4 |
| Cars | 4 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Case | 4 | 0 | 7 | 4 | 2 | 3 | 12 | 28 |
| Cases | 5 | 0 | 1 | 1 | 0 | 0 | 1 | 3 |
| Casually | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Catch | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Catching | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Categories | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Category | 8 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Catholics | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Cause | 5 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Causing | 7 | 0 | 0 | 0 | 3 | 1 | 1 | 5 |
| Caution | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Cdi | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Cease | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Cent | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Center | 6 | 0 | 0 | 1 | 0 | 1 | 2 | 4 |
| Centers | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Central | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 7 |
| Centre | 6 | 0 | 0 | 0 | 4 | 0 | 1 | 5 |
| Centres | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Ceo | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Certainly | 9 | 0 | 0 | 0 | 0 | 7 | 2 | 9 |

| | | | | | | | | |
|-----------------|----|---|---|---|---|----|----|----|
| Certificate | 11 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Certificates | 12 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Chain | 5 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Chairperson | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Challenge | 9 | 0 | 0 | 0 | 5 | 0 | 3 | 8 |
| Challenged | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Challenges | 10 | 0 | 0 | 2 | 3 | 1 | 2 | 8 |
| Challenging | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Chamber | 7 | 0 | 1 | 1 | 1 | 0 | 1 | 4 |
| Chambers | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Chance | 6 | 2 | 0 | 3 | 1 | 0 | 2 | 8 |
| Chances | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Change | 6 | 1 | 4 | 0 | 3 | 14 | 15 | 37 |
| Changed | 7 | 4 | 2 | 1 | 3 | 1 | 1 | 12 |
| Changes | 7 | 0 | 0 | 1 | 2 | 2 | 5 | 10 |
| Changing | 8 | 0 | 2 | 2 | 3 | 4 | 3 | 14 |
| Channeling | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Channels | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Character | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Characteristic | 14 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Characteristics | 15 | 2 | 0 | 0 | 1 | 0 | 0 | 3 |
| Charities | 9 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Charlotte | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Chase | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Chat | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Check | 5 | 0 | 1 | 1 | 0 | 2 | 0 | 4 |
| Checked | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Chemistry | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Chicken | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Childhood | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Children | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Chinese | 7 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| Chip | 4 | 1 | 0 | 2 | 2 | 0 | 0 | 5 |
| Choice | 6 | 0 | 2 | 2 | 4 | 4 | 7 | 19 |
| Choose | 6 | 4 | 3 | 1 | 0 | 0 | 1 | 9 |
| Choosing | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Chose | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Chris | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Christmas | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Christopher | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Chun | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Chunk | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Church | 6 | 2 | 0 | 0 | 1 | 0 | 0 | 3 |
| Circumstances | 13 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Cities | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Citizens | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| City | 4 | 2 | 2 | 2 | 1 | 1 | 4 | 12 |
| Civil | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |

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|----------------------|----|----|----|----|----|----|----|-----|
| Clarify | 7 | 2 | 1 | 0 | 2 | 1 | 3 | 9 |
| Clarity | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Class | 5 | 20 | 31 | 19 | 17 | 8 | 5 | 100 |
| Classes | 7 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Classroom | 9 | 0 | 0 | 1 | 0 | 4 | 4 | 9 |
| Classwork | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Clear | 5 | 1 | 0 | 3 | 0 | 3 | 0 | 7 |
| Clearance | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Clearly | 7 | 1 | 0 | 1 | 2 | 1 | 0 | 5 |
| Client | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Clients | 7 | 0 | 0 | 12 | 0 | 0 | 0 | 12 |
| Close | 5 | 1 | 0 | 0 | 1 | 3 | 3 | 8 |
| Closer | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Closing | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Cloth | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Clothes | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Clouded | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Club | 4 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Clubs | 5 | 5 | 0 | 0 | 1 | 0 | 0 | 6 |
| Clue | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Clusters | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Coach | 5 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Code | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Cognizant | 9 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Cohort | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Collaborating | 13 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Colleague | 9 | 0 | 0 | 0 | 3 | 2 | 0 | 5 |
| Colleagues | 10 | 0 | 2 | 0 | 0 | 0 | 5 | 7 |
| Collect | 7 | 0 | 0 | 2 | 2 | 0 | 0 | 4 |
| Collecting | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Collection | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Collective | 10 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Collectively | 12 | 2 | 0 | 0 | 3 | 1 | 3 | 9 |
| College | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Colloques | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Colonial | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Colonialists | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Colour | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Combination | 11 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Combine | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Come | 4 | 6 | 20 | 27 | 43 | 11 | 37 | 144 |
| Comeback | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Comes | 5 | 1 | 4 | 5 | 10 | 12 | 3 | 35 |
| Comfortable | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Coming | 6 | 2 | 6 | 3 | 6 | 3 | 8 | 28 |
| Comment | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 7 |
| Commented | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Comments | 8 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |

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|-------------------|----|---|----|---|----|----|---|----|
| Commerce | 8 | 0 | 1 | 1 | 1 | 0 | 1 | 4 |
| Commercialisation | 17 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Commercialise | 13 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Commodity | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Common | 6 | 1 | 1 | 0 | 0 | 2 | 1 | 5 |
| Commonly | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Communicate | 11 | 0 | 5 | 2 | 0 | 5 | 2 | 14 |
| Communicating | 13 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Communication | 13 | 6 | 12 | 4 | 14 | 20 | 9 | 65 |
| Communications | 14 | 0 | 3 | 0 | 0 | 1 | 0 | 4 |
| Communion | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Communities | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Community | 9 | 3 | 0 | 4 | 1 | 0 | 2 | 10 |
| Companies | 9 | 1 | 1 | 2 | 2 | 1 | 0 | 7 |
| Company | 7 | 3 | 2 | 0 | 1 | 0 | 3 | 9 |
| Compare | 7 | 0 | 0 | 2 | 2 | 4 | 4 | 12 |
| Compared | 8 | 2 | 0 | 4 | 5 | 0 | 3 | 14 |
| Compares | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Comparing | 9 | 0 | 1 | 0 | 1 | 0 | 1 | 3 |
| Comparison | 10 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Compete | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Competences | 11 | 0 | 0 | 0 | 0 | 6 | 0 | 6 |
| Competent | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Competition | 11 | 0 | 0 | 0 | 2 | 0 | 3 | 5 |
| Competitive | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Complaining | 11 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Complement | 10 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Complete | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Completed | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Completely | 10 | 2 | 1 | 0 | 5 | 1 | 0 | 9 |
| Components | 10 | 0 | 0 | 0 | 4 | 0 | 0 | 4 |
| Compulsory | 10 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Computer | 8 | 0 | 5 | 0 | 1 | 0 | 0 | 6 |
| Concentrating | 13 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Concept | 7 | 0 | 0 | 1 | 2 | 1 | 1 | 5 |
| Concepts | 8 | 1 | 1 | 0 | 0 | 1 | 1 | 4 |
| Concern | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Concerned | 9 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Concerns | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Conclusion | 10 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Concur | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Concurs | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Conductive | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Conduct | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Conference | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Confessed | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Confidence | 10 | 2 | 0 | 1 | 1 | 0 | 3 | 7 |

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|----------------------|----|---|---|---|---|---|---|----|
| Confident | 9 | 2 | 0 | 0 | 1 | 0 | 1 | 4 |
| Confidential | 12 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Confirm | 7 | 1 | 0 | 3 | 0 | 0 | 1 | 5 |
| Conflict | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Conflicting | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Confused | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Congress | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Connect | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Connected | 9 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Connection | 10 | 0 | 1 | 0 | 3 | 0 | 0 | 4 |
| Connections | 11 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Connectivity | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Conquer | 7 | 0 | 0 | 0 | 1 | 6 | 1 | 8 |
| Conquered | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Conquers | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Consensus | 9 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Consent | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Consider | 8 | 0 | 0 | 2 | 1 | 0 | 1 | 4 |
| Consideration | 13 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Considering | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Consistent | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Consistently | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Constant | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Constantly | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Constrained | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Constraints | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Consult | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Consultancy | 11 | 0 | 0 | 0 | 0 | 3 | 1 | 4 |
| Consulting | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Consumption | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Contemporary | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Content | 7 | 1 | 0 | 4 | 3 | 2 | 3 | 13 |
| Continue | 8 | 0 | 0 | 0 | 2 | 3 | 2 | 7 |
| Continuous | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Contrary | 8 | 1 | 0 | 2 | 0 | 0 | 0 | 3 |
| Contribute | 10 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Contributed | 11 | 2 | 0 | 2 | 0 | 0 | 0 | 4 |
| Contributes | 11 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Contribution | 12 | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| Contributor | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Control | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Controversial | 13 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Conversant | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Conversation | 12 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Convince | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Convinced | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Cool | 4 | 2 | 0 | 0 | 0 | 1 | 0 | 3 |
| Cope | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |

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|-------------|----|----|----|----|----|----|----|-----|
| Copyright | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Core | 4 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Corporate | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Correct | 7 | 2 | 0 | 3 | 0 | 0 | 0 | 5 |
| Correction | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Corrective | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Correctly | 9 | 1 | 0 | 1 | 2 | 0 | 0 | 4 |
| Correlate | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Correlation | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Correlative | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Costing | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Costs | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Could've | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Couldn't | 8 | 0 | 3 | 1 | 0 | 0 | 4 | 8 |
| Council | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Count | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Counterpart | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Countries | 9 | 0 | 1 | 7 | 0 | 1 | 0 | 9 |
| Country | 7 | 0 | 1 | 7 | 2 | 0 | 0 | 10 |
| Couple | 6 | 0 | 0 | 0 | 0 | 3 | 3 | 6 |
| Coupled | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Course | 6 | 2 | 5 | 8 | 12 | 5 | 2 | 34 |
| Courses | 7 | 0 | 1 | 1 | 2 | 0 | 1 | 5 |
| Cousins | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Coventry | 8 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Cover | 5 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Covered | 7 | 2 | 0 | 0 | 0 | 4 | 0 | 6 |
| Creative | 8 | 6 | 3 | 6 | 10 | 0 | 8 | 33 |
| Creativity | 10 | 9 | 7 | 2 | 15 | 3 | 11 | 47 |
| Credit | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Credited | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Credits | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Criteria | 8 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Critical | 8 | 2 | 0 | 3 | 8 | 2 | 3 | 18 |
| Critically | 10 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Criticism | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Cross | 5 | 1 | 1 | 0 | 2 | 0 | 0 | 4 |
| Crucial | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Crying | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Cultural | 8 | 1 | 0 | 4 | 1 | 0 | 3 | 9 |
| Culturally | 10 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Culture | 7 | 14 | 5 | 39 | 10 | 6 | 19 | 93 |
| Cultures | 8 | 0 | 5 | 2 | 1 | 0 | 1 | 9 |
| Curate | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Current | 7 | 0 | 0 | 1 | 1 | 3 | 1 | 6 |
| Currently | 9 | 0 | 1 | 4 | 1 | 3 | 0 | 9 |
| Curri | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Curricular | 10 | 48 | 62 | 33 | 54 | 43 | 54 | 294 |

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|---------------------|----|---|---|---|----|---|----|----|
| Curriculum | 10 | 1 | 0 | 2 | 11 | 6 | 12 | 32 |
| Customer | 8 | 0 | 1 | 3 | 3 | 0 | 0 | 7 |
| Customers | 9 | 0 | 8 | 8 | 3 | 2 | 1 | 22 |
| Customerso | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Cut | 3 | 1 | 0 | 0 | 2 | 0 | 0 | 3 |
| Cuts | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Cvi | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Dad | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Dad's | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Daily | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Dark | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Date | 4 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Dated | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Deal | 4 | 0 | 1 | 1 | 4 | 3 | 0 | 9 |
| Dealing | 7 | 0 | 3 | 0 | 0 | 0 | 2 | 5 |
| Dean | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Deans | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Debating | 8 | 1 | 0 | 1 | 0 | 0 | 1 | 3 |
| Debit | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Debt | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Debts | 5 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Decade | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Decide | 6 | 0 | 0 | 1 | 3 | 1 | 2 | 7 |
| Decided | 7 | 0 | 1 | 1 | 1 | 0 | 0 | 3 |
| Decides | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Decision | 8 | 2 | 4 | 1 | 22 | 4 | 2 | 35 |
| Decisions | 9 | 0 | 0 | 0 | 8 | 2 | 2 | 12 |
| Dedicate | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Dedicated | 9 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Deep | 4 | 1 | 0 | 2 | 0 | 1 | 0 | 4 |
| Deeper | 6 | 0 | 0 | 2 | 0 | 3 | 0 | 5 |
| Define | 6 | 0 | 1 | 3 | 0 | 3 | 0 | 7 |
| Defined | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Definition | 10 | 0 | 0 | 4 | 0 | 0 | 2 | 6 |
| Definitions | 11 | 0 | 0 | 2 | 0 | 1 | 0 | 3 |
| Deflection | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Degree | 6 | 0 | 1 | 0 | 3 | 0 | 8 | 12 |
| Degrees | 7 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Delegate | 8 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Deliver | 7 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Deliveries | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Delivering | 10 | 0 | 0 | 1 | 1 | 1 | 1 | 4 |
| Delivers | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Delivery | 8 | 0 | 0 | 0 | 2 | 1 | 2 | 5 |
| Demand | 6 | 0 | 2 | 1 | 2 | 0 | 0 | 5 |
| Demographic | 11 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Demographics | 12 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Demography | 10 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |

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| Demolishing | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Demonstrate | 11 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Demonstrates | 12 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Dennis | 6 | 80 | 71 | 4 | 141 | 129 | 90 | 515 |
| Denote | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Denotes | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Deny | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Department | 10 | 0 | 0 | 1 | 3 | 0 | 0 | 4 |
| Departments | 11 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Depend | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Depending | 9 | 1 | 0 | 1 | 0 | 0 | 2 | 4 |
| Depends | 7 | 0 | 0 | 6 | 0 | 2 | 2 | 10 |
| Depth | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Descending | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Describe | 8 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Described | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Desirability | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Desire | 6 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Desk | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Despite | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Destructed | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Destruction | 11 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Detail | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Detailed | 8 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Details | 7 | 0 | 1 | 3 | 0 | 0 | 0 | 4 |
| Develop | 7 | 0 | 3 | 9 | 0 | 4 | 2 | 18 |
| Developed | 9 | 0 | 1 | 9 | 0 | 0 | 0 | 10 |
| Developing | 10 | 1 | 1 | 1 | 0 | 5 | 5 | 13 |
| Deviation | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Deviations | 10 | 0 | 0 | 1 | 3 | 0 | 0 | 4 |
| Devise | 6 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Devoted | 7 | 0 | 0 | 0 | 2 | 2 | 2 | 6 |
| Dicommunetry | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Dictated | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Didn't | 6 | 2 | 3 | 2 | 4 | 2 | 4 | 17 |
| Differ | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Difference | 10 | 2 | 0 | 0 | 3 | 1 | 0 | 6 |
| Differences | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Different | 9 | 8 | 22 | 26 | 27 | 4 | 14 | 101 |
| Differently | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Differing | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Difficult | 9 | 1 | 3 | 0 | 0 | 7 | 3 | 14 |
| Difficulty | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Dig | 3 | 0 | 0 | 1 | 2 | 2 | 1 | 6 |
| Digging | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Digital | 7 | 3 | 23 | 11 | 11 | 8 | 1 | 57 |
| Digitalised | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Diploma | 7 | 0 | 0 | 0 | 14 | 0 | 0 | 14 |

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| Direct | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Direction | 9 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Directly | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Directors | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Dirrection | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Dis | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Disagree | 8 | 1 | 0 | 0 | 0 | 2 | 1 | 4 |
| Disagreeing | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Disagrees | 9 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Disciple | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Discipline | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Disclose | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Discover | 8 | 2 | 0 | 0 | 1 | 0 | 0 | 3 |
| Discuss | 7 | 1 | 0 | 2 | 1 | 0 | 2 | 6 |
| Discussed | 9 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Discussing | 10 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Discussion | 10 | 0 | 0 | 6 | 3 | 1 | 1 | 11 |
| Disengaged | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Disintegrated | 13 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Disparity | 9 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Distinct | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Distraction | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Distractive | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Distribution | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Districts | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Divergence | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Diverse | 7 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Diversity | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Divided | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Dj | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Doctor | 6 | 0 | 0 | 9 | 1 | 0 | 0 | 10 |
| Doctors | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Document | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Doesn't | 7 | 1 | 0 | 5 | 5 | 4 | 2 | 17 |
| Domains | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Dominant | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Don't | 5 | 13 | 17 | 26 | 24 | 29 | 23 | 132 |
| Door | 4 | 5 | 0 | 0 | 0 | 0 | 2 | 7 |
| Doors | 5 | 0 | 0 | 0 | 0 | 4 | 3 | 7 |
| Dormitory | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Dots | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Double | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Doubled | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Doubt | 5 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Downfalls | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Download | 8 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Downtown | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Downwards | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |

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| Dr | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 4 |
| Draw | 4 | 0 | 2 | 0 | 0 | 0 | 1 | 3 |
| Dreams | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Dresses | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Drive | 5 | 2 | 3 | 0 | 0 | 0 | 1 | 6 |
| Driven | 6 | 0 | 3 | 0 | 1 | 0 | 0 | 4 |
| Driver | 6 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Drives | 6 | 0 | 1 | 2 | 0 | 0 | 0 | 3 |
| Drooling | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Drop | 4 | 0 | 1 | 2 | 0 | 0 | 0 | 3 |
| Dropped | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Dubai | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Due | 3 | 0 | 4 | 0 | 1 | 0 | 0 | 5 |
| Duly | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Dump | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Duties | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Duty | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Dynamic | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Earlier | 7 | 2 | 4 | 2 | 2 | 2 | 1 | 13 |
| Early | 5 | 1 | 2 | 0 | 0 | 1 | 1 | 5 |
| Earn | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Easier | 6 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Easily | 6 | 0 | 3 | 0 | 1 | 0 | 0 | 4 |
| East | 4 | 0 | 1 | 2 | 2 | 0 | 1 | 6 |
| Eastern | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Easy | 4 | 1 | 4 | 0 | 0 | 2 | 0 | 7 |
| Ec0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Eco | 3 | 8 | 6 | 17 | 23 | 13 | 19 | 86 |
| Economic | 8 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Ecosystem | 9 | 2 | 0 | 11 | 0 | 1 | 1 | 15 |
| Ecosystems | 10 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Edge | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Educate | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Educated | 8 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Education | 9 | 1 | 5 | 8 | 16 | 7 | 6 | 43 |
| Educational | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Effect | 6 | 0 | 0 | 2 | 1 | 1 | 0 | 4 |
| Effecting | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Effective | 9 | 8 | 8 | 15 | 8 | 12 | 12 | 63 |
| Effectively | 11 | 0 | 3 | 1 | 0 | 0 | 0 | 4 |
| Effectiveness | 13 | 0 | 1 | 4 | 0 | 1 | 3 | 9 |
| Effects | 7 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Efficacy | 8 | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| Efficiency | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Efficiently | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Effort | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Egg | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Ehm | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |

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| Eight | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Elaborate | 9 | 1 | 5 | 0 | 1 | 1 | 2 | 10 |
| Elections | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Element | 7 | 2 | 0 | 5 | 4 | 1 | 5 | 17 |
| Elements | 8 | 1 | 0 | 6 | 4 | 3 | 2 | 16 |
| Eleven | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Else | 4 | 6 | 2 | 13 | 8 | 6 | 1 | 36 |
| Elsewhere | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Email | 5 | 0 | 0 | 5 | 0 | 0 | 2 | 7 |
| Emails | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Emase | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Embed | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Embedded | 8 | 0 | 1 | 0 | 0 | 1 | 2 | 4 |
| Embedding | 9 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Embodied | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Embrace | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Embracing | 9 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Emergency | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Emergent | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Emerging | 8 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Empathize | 9 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Empathy | 7 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Emphasis | 8 | 0 | 0 | 0 | 2 | 2 | 1 | 5 |
| Emphasize | 9 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Emphasizing | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Employ | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Employability | 13 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| Employable | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Employed | 8 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Employees | 9 | 2 | 1 | 0 | 0 | 0 | 1 | 4 |
| Employer | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Employers | 9 | 0 | 0 | 0 | 9 | 0 | 1 | 10 |
| Employment | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Empower | 7 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Empowered | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Empowering | 10 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Empowerment | 11 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Empowers | 8 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Enable | 6 | 0 | 0 | 0 | 2 | 1 | 1 | 4 |
| Enabler | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Enables | 7 | 0 | 0 | 2 | 0 | 1 | 0 | 3 |
| Enabling | 8 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Encourage | 9 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Encouraged | 10 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Encourages | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Encouraging | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Energy | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Enforce | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |

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|-----------------|----|----|----|----|----|----|----|-----|
| Enforced | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Enforcing | 9 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Engage | 6 | 1 | 1 | 2 | 4 | 7 | 0 | 15 |
| Engaged | 7 | 2 | 0 | 0 | 1 | 2 | 1 | 6 |
| Engagement | 10 | 0 | 0 | 1 | 0 | 7 | 0 | 8 |
| Engages | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Engaging | 8 | 0 | 2 | 0 | 0 | 4 | 0 | 6 |
| Engineering | 11 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Engines | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| England | 7 | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| Enhance | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Enhanced | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Enjoy | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Enjoyed | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Enjoying | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Enlarge | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Enlightened | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Enough | 6 | 1 | 0 | 4 | 1 | 1 | 8 | 15 |
| Enrich | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Ensure | 6 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Enter | 5 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Entered | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Enterprise | 10 | 0 | 0 | 1 | 8 | 2 | 0 | 11 |
| Enterprises | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Enterprising | 12 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Entire | 6 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Entirely | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Entitled | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Entity | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Entre | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Entrep | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Entrepreneur | 12 | 17 | 22 | 27 | 20 | 21 | 18 | 125 |
| Entrepreneur's | 14 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Entrepreneurial | 15 | 18 | 12 | 17 | 31 | 15 | 16 | 109 |
| Entrepreneurs | 13 | 4 | 16 | 15 | 30 | 14 | 12 | 91 |
| Entry | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Environment | 11 | 20 | 15 | 6 | 24 | 7 | 6 | 78 |
| Environmental | 13 | 3 | 0 | 0 | 0 | 1 | 2 | 6 |
| Environments | 12 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Envy | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Eodf | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Equal | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Equally | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Equation | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Equip | 5 | 0 | 0 | 1 | 2 | 0 | 4 | 7 |
| Equipment | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Equipped | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Equipping | 9 | 0 | 2 | 1 | 4 | 5 | 11 | 23 |

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| Equips | 6 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Equity | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Equivalent | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Era | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Ernest | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Err | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Especially | 10 | 3 | 1 | 4 | 5 | 10 | 7 | 30 |
| Essential | 9 | 0 | 0 | 0 | 0 | 5 | 1 | 6 |
| Essentially | 11 | 0 | 0 | 2 | 0 | 2 | 1 | 5 |
| Established | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Establishing | 12 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Establishment | 13 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Estate | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Estimates | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Et | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Ethic | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Ethics | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Ethnic | 6 | 3 | 0 | 0 | 0 | 0 | 1 | 4 |
| Eunice | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Europe | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Evaluate | 8 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Evaluating | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Evaluation | 10 | 4 | 1 | 1 | 2 | 1 | 2 | 11 |
| Evaluations | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Even | 4 | 4 | 14 | 15 | 30 | 9 | 17 | 89 |
| Evening | 7 | 0 | 0 | 1 | 4 | 0 | 0 | 5 |
| Evenings | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Event | 5 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Events | 6 | 2 | 0 | 1 | 0 | 1 | 1 | 5 |
| Eventually | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Ever | 4 | 2 | 0 | 0 | 1 | 0 | 0 | 3 |
| Everybody | 9 | 0 | 1 | 1 | 1 | 0 | 3 | 6 |
| Everyday | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Everyone's | 10 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Everyother | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Everything | 10 | 7 | 7 | 7 | 1 | 2 | 2 | 26 |
| Everywhere | 10 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Evidence | 8 | 0 | 0 | 0 | 0 | 5 | 8 | 13 |
| Evidencing | 10 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Evident | 7 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Evolution | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Evolves | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Exactly | 7 | 2 | 1 | 2 | 4 | 2 | 0 | 11 |
| Exaggerated | 11 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Exam | 4 | 1 | 2 | 0 | 3 | 2 | 2 | 10 |
| Examinable | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Examination | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Examine | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |

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|--------------|----|---|----|----|----|----|----|----|
| Examining | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Example | 7 | 2 | 20 | 22 | 28 | 9 | 15 | 96 |
| Examples | 8 | 1 | 2 | 1 | 0 | 1 | 12 | 17 |
| Exams | 5 | 1 | 2 | 1 | 0 | 0 | 0 | 4 |
| Excel | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Except | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Exception | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Exceptions | 10 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Excited | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Excluded | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Excuse | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Execute | 7 | 0 | 0 | 0 | 0 | 4 | 1 | 5 |
| Executed | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Executing | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Execution | 9 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Executive | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Executives | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Exercise | 8 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Exhibit | 7 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Exist | 5 | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| Existed | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Existence | 9 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Existing | 8 | 0 | 0 | 1 | 3 | 0 | 0 | 4 |
| Exists | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Expand | 6 | 0 | 0 | 3 | 1 | 0 | 0 | 4 |
| Expansion | 9 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Expect | 6 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Expectation | 11 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Expectations | 12 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Expected | 8 | 3 | 0 | 0 | 0 | 4 | 3 | 10 |
| Experience | 10 | 2 | 3 | 7 | 19 | 19 | 16 | 66 |
| Experiences | 11 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Experiencing | 12 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Expert | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Expertise | 9 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Explain | 7 | 1 | 0 | 1 | 0 | 0 | 1 | 3 |
| Explained | 9 | 0 | 0 | 2 | 1 | 1 | 0 | 4 |
| Explaining | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Explanation | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Explicitly | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Exploit | 7 | 0 | 1 | 0 | 1 | 0 | 1 | 3 |
| Exploiting | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Explore | 7 | 0 | 1 | 1 | 1 | 1 | 1 | 5 |
| Exploring | 9 | 1 | 1 | 2 | 0 | 0 | 0 | 4 |
| Explosive | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Exporting | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Expose | 6 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Exposed | 7 | 1 | 0 | 3 | 1 | 2 | 1 | 8 |

| | | | | | | | | |
|------------------------|----|----|----|----|----|----|----|-----|
| Exposes | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Exposure | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Expounding | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Express | 7 | 1 | 0 | 0 | 1 | 0 | 1 | 3 |
| Extant | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Extensions | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Extent | 6 | 10 | 5 | 11 | 26 | 17 | 14 | 83 |
| External | 8 | 4 | 0 | 1 | 0 | 1 | 4 | 10 |
| Extra | 5 | 19 | 21 | 7 | 17 | 19 | 20 | 103 |
| Extract | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Extracted | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Extracurricular | 15 | 0 | 9 | 15 | 2 | 0 | 0 | 26 |
| Extremely | 9 | 1 | 0 | 2 | 0 | 2 | 0 | 5 |
| Eyes | 4 | 0 | 1 | 1 | 0 | 1 | 0 | 3 |
| Fabricated | 10 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Face | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Facebook | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Facilitate | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Facilitator | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Facing | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Fact | 4 | 0 | 1 | 5 | 2 | 2 | 5 | 15 |
| Factories | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Facts | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Faculty | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Fail | 4 | 0 | 3 | 0 | 2 | 1 | 2 | 8 |
| Failed | 6 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Failing | 7 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Failings | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Fails | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Failure | 7 | 0 | 3 | 0 | 2 | 0 | 5 | 10 |
| Failures | 8 | 0 | 1 | 1 | 1 | 0 | 1 | 4 |
| Fair | 4 | 1 | 0 | 1 | 1 | 0 | 0 | 3 |
| Fall | 4 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Falling | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| False | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Familiar | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Families | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Family | 6 | 1 | 2 | 4 | 1 | 1 | 5 | 14 |
| Fantastic | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Fashioned | 9 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Fashions | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Fast | 4 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Faster | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Father | 6 | 7 | 0 | 0 | 0 | 0 | 0 | 7 |
| Father's | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Favorable | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Favourably | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Favouring | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |

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|--------------------|----|----|----|----|----|---|----|-----|
| Favours | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Fear | 4 | 1 | 1 | 0 | 0 | 0 | 1 | 3 |
| Feasibility | 11 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Feasible | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Feedback | 8 | 0 | 0 | 4 | 0 | 2 | 1 | 7 |
| Feeds | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Feel | 4 | 27 | 9 | 17 | 11 | 6 | 42 | 112 |
| Feeling | 7 | 0 | 2 | 0 | 1 | 1 | 0 | 4 |
| Feels | 5 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Fees | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Felt | 4 | 0 | 1 | 1 | 2 | 0 | 4 | 8 |
| Female | 6 | 1 | 0 | 0 | 3 | 0 | 2 | 6 |
| Field | 5 | 0 | 2 | 7 | 4 | 0 | 0 | 13 |
| Fifteen | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Fignments | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Figure | 6 | 1 | 0 | 2 | 0 | 2 | 0 | 5 |
| Figures | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| File | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Fill | 4 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| Filling | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Filter | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Final | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Finalising | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Finally | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Finance | 7 | 3 | 2 | 2 | 6 | 7 | 4 | 24 |
| Finances | 8 | 1 | 0 | 1 | 4 | 0 | 0 | 6 |
| Financial | 9 | 1 | 0 | 1 | 0 | 2 | 1 | 5 |
| Financing | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Find | 4 | 3 | 11 | 12 | 17 | 1 | 7 | 51 |
| Finding | 7 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Findings | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Fine | 4 | 1 | 0 | 3 | 1 | 0 | 1 | 6 |
| Fines | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Finger | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Finish | 6 | 0 | 0 | 2 | 1 | 1 | 0 | 4 |
| Finished | 8 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Firm | 4 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Firms | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Firstly | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Fit | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Fitting | 7 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Five | 4 | 0 | 18 | 0 | 23 | 2 | 1 | 44 |
| Fix | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Flats | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Flavor | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Flesh | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Flexibility | 11 | 0 | 0 | 0 | 0 | 3 | 8 | 11 |
| Flexible | 8 | 0 | 0 | 2 | 2 | 2 | 1 | 7 |

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|---------------------|----|---|---|----|---|---|---|----|
| Flight | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Flooding | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Flow | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Fluid | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Followers | 9 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Food | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Foot | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Football | 8 | 0 | 3 | 0 | 0 | 1 | 0 | 4 |
| Force | 5 | 0 | 0 | 1 | 1 | 0 | 1 | 3 |
| Forced | 6 | 0 | 1 | 0 | 0 | 2 | 0 | 3 |
| Forces | 6 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Forcing | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Foremost | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Forever | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Forget | 6 | 0 | 0 | 0 | 2 | 0 | 1 | 3 |
| Forgetting | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Forgot | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Form | 4 | 0 | 0 | 8 | 1 | 4 | 1 | 14 |
| Formal | 6 | 0 | 0 | 0 | 0 | 6 | 0 | 6 |
| Formally | 8 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Formed | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Former | 6 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Fortunately | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Forward | 7 | 0 | 1 | 3 | 0 | 4 | 2 | 10 |
| Found | 5 | 0 | 1 | 0 | 1 | 5 | 1 | 8 |
| Foundation | 10 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| Foundational | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Foundations | 11 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Frame | 5 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Framed | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Framework | 9 | 0 | 0 | 0 | 0 | 2 | 5 | 7 |
| Frameworks | 10 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Free | 4 | 2 | 2 | 4 | 1 | 0 | 0 | 9 |
| Freedom | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Friday | 6 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Friends | 7 | 1 | 5 | 2 | 1 | 0 | 1 | 10 |
| Front | 5 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Fruitful | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Fulltime | 8 | 0 | 0 | 14 | 0 | 0 | 0 | 14 |
| Fully | 5 | 0 | 1 | 1 | 1 | 1 | 0 | 4 |
| Fun | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Fundamental | 11 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Funding | 7 | 0 | 0 | 1 | 0 | 1 | 1 | 3 |
| Funds | 5 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Future | 6 | 2 | 3 | 0 | 0 | 2 | 2 | 9 |
| Gain | 4 | 1 | 2 | 2 | 1 | 0 | 0 | 6 |
| Gained | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Gaining | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |

| | | | | | | | | |
|---------------------|----|----|----|----|----|----|----|-----|
| Gala | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Game | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Games | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Gap | 3 | 1 | 0 | 1 | 2 | 2 | 1 | 7 |
| Gaps | 4 | 0 | 3 | 0 | 0 | 3 | 2 | 8 |
| Gates | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Gather | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Gave | 4 | 3 | 2 | 1 | 0 | 1 | 1 | 8 |
| Gear | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| General | 7 | 1 | 0 | 2 | 4 | 0 | 2 | 9 |
| Generalise | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Generally | 9 | 7 | 3 | 3 | 10 | 4 | 4 | 31 |
| Generate | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Generated | 9 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| Generating | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Generation | 10 | 0 | 2 | 0 | 1 | 0 | 2 | 5 |
| Generous | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Generously | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Genetically | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Gentleman | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Genuine | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Geographical | 12 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Gertrude | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Ghana | 5 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Ghanaian | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Gifted | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Gist | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Give | 4 | 12 | 16 | 8 | 16 | 9 | 15 | 76 |
| Given | 5 | 9 | 7 | 8 | 20 | 5 | 6 | 55 |
| Gives | 5 | 7 | 2 | 8 | 0 | 0 | 3 | 20 |
| Giving | 6 | 2 | 3 | 14 | 6 | 2 | 7 | 34 |
| Global | 6 | 0 | 2 | 0 | 0 | 0 | 1 | 3 |
| Goal | 4 | 0 | 1 | 1 | 0 | 0 | 2 | 4 |
| Goals | 5 | 1 | 1 | 3 | 0 | 0 | 0 | 5 |
| Gonna | 5 | 5 | 0 | 0 | 0 | 4 | 8 | 17 |
| Good | 4 | 21 | 9 | 21 | 26 | 12 | 24 | 113 |
| Goodness | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Gotta | 5 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Govern | 6 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Government | 10 | 1 | 5 | 6 | 13 | 6 | 10 | 41 |
| Governmental | 12 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Governments | 11 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Grab | 4 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Grade | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Graded | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Grades | 6 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Gradual | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Graduate | 8 | 3 | 0 | 1 | 9 | 5 | 1 | 19 |

| | | | | | | | | |
|--------------------|----|----|---|----|---|---|----|----|
| Graduated | 9 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Graduates | 9 | 0 | 0 | 0 | 8 | 5 | 4 | 17 |
| Graduating | 10 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Graduation | 10 | 1 | 0 | 0 | 0 | 2 | 0 | 3 |
| Grammar | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Graph | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Graphs | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Grasp | 5 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Grassroots | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Grateful | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Gravitate | 9 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Great | 5 | 2 | 1 | 1 | 3 | 3 | 1 | 11 |
| Greater | 7 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Greatly | 7 | 0 | 0 | 2 | 2 | 1 | 0 | 5 |
| Greeks | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Grew | 4 | 9 | 0 | 0 | 1 | 0 | 0 | 10 |
| Grid | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Ground | 6 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Grounded | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grounds | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Group | 5 | 3 | 0 | 11 | 4 | 3 | 4 | 25 |
| Groups | 6 | 1 | 0 | 1 | 1 | 7 | 2 | 12 |
| Grow | 4 | 5 | 0 | 4 | 3 | 3 | 1 | 16 |
| Growing | 7 | 1 | 0 | 1 | 1 | 0 | 0 | 3 |
| Grown | 5 | 2 | 0 | 1 | 0 | 0 | 0 | 3 |
| Growth | 6 | 0 | 0 | 3 | 7 | 0 | 1 | 11 |
| Guess | 5 | 0 | 0 | 0 | 0 | 4 | 4 | 8 |
| Guest | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Guests | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Guidance | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Guide | 5 | 0 | 1 | 1 | 0 | 1 | 0 | 3 |
| Guidelines | 10 | 0 | 0 | 0 | 5 | 4 | 6 | 15 |
| Guild | 5 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Gulu | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Guy | 3 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Guys | 4 | 0 | 0 | 1 | 5 | 0 | 0 | 6 |
| Habituation | 11 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Hadn't | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Half | 4 | 0 | 0 | 2 | 1 | 2 | 1 | 6 |
| Ham | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Hand | 4 | 1 | 2 | 1 | 1 | 1 | 0 | 6 |
| Handle | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Handled | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Hands | 5 | 0 | 0 | 5 | 7 | 0 | 0 | 12 |
| Hanging | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Happen | 6 | 4 | 0 | 1 | 2 | 1 | 2 | 10 |
| Happened | 8 | 2 | 1 | 6 | 1 | 1 | 1 | 12 |
| Happening | 9 | 10 | 5 | 36 | 3 | 4 | 10 | 68 |

| | | | | | | | | |
|-------------|----|---|---|---|---|----|---|----|
| Happens | 7 | 4 | 3 | 2 | 2 | 7 | 1 | 19 |
| Happy | 5 | 0 | 1 | 0 | 1 | 0 | 2 | 4 |
| Hard | 4 | 1 | 0 | 4 | 1 | 1 | 2 | 9 |
| Harder | 6 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Hardest | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Hardly | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Hardships | 9 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Harmed | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Harmony | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Harsh | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Hasn't | 6 | 4 | 1 | 3 | 0 | 0 | 1 | 9 |
| Haven't | 7 | 1 | 0 | 2 | 0 | 1 | 1 | 5 |
| He'll | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| He's | 4 | 8 | 1 | 0 | 0 | 1 | 1 | 11 |
| Head | 4 | 1 | 2 | 0 | 1 | 1 | 2 | 7 |
| Heading | 7 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| Heads | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Hear | 4 | 1 | 0 | 4 | 3 | 2 | 0 | 10 |
| Heard | 5 | 0 | 0 | 2 | 0 | 2 | 0 | 4 |
| Held | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Help | 4 | 4 | 4 | 9 | 6 | 3 | 7 | 33 |
| Helped | 6 | 3 | 3 | 4 | 0 | 0 | 0 | 10 |
| Helpful | 7 | 0 | 1 | 8 | 1 | 2 | 4 | 16 |
| Helping | 7 | 3 | 1 | 1 | 1 | 0 | 3 | 9 |
| Helps | 5 | 1 | 7 | 5 | 0 | 1 | 1 | 15 |
| Heritage | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Hesitant | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Hi | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Hidden | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| High | 4 | 1 | 0 | 3 | 3 | 5 | 2 | 14 |
| Higher | 6 | 0 | 0 | 5 | 5 | 1 | 0 | 11 |
| Highest | 7 | 0 | 0 | 1 | 2 | 1 | 1 | 5 |
| Highlight | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Highlighted | 11 | 1 | 0 | 3 | 4 | 1 | 0 | 9 |
| Highly | 6 | 0 | 0 | 1 | 0 | 11 | 0 | 12 |
| Hint | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Hires | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Historical | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Hit | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Hmm | 3 | 2 | 4 | 0 | 0 | 0 | 0 | 6 |
| Hold | 4 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Holder | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Holders | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Holding | 7 | 0 | 1 | 0 | 0 | 3 | 1 | 5 |
| Hole | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Holidays | 8 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Home | 4 | 4 | 0 | 6 | 1 | 0 | 4 | 15 |
| Homes | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

| | | | | | | | | |
|------------------------|----|----|----|----|----|----|----|-----|
| Homogenous | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Honest | 6 | 4 | 0 | 0 | 0 | 1 | 0 | 5 |
| Honestly | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Hope | 4 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Hoped | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Hopefully | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Hoping | 6 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Hour | 4 | 1 | 0 | 2 | 1 | 2 | 0 | 6 |
| Hours | 5 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| House | 5 | 1 | 0 | 0 | 0 | 1 | 2 | 4 |
| Houses | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| However | 7 | 0 | 2 | 5 | 3 | 6 | 11 | 27 |
| Hub | 3 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Huge | 4 | 0 | 0 | 2 | 0 | 3 | 2 | 7 |
| Hum | 3 | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| Human | 5 | 3 | 3 | 1 | 2 | 5 | 1 | 15 |
| Hundred | 7 | 1 | 2 | 0 | 0 | 1 | 1 | 5 |
| Hung | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Hunger | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Hustle | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| I.E | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| I.T | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| I'd | 3 | 4 | 0 | 0 | 10 | 43 | 6 | 63 |
| I'll | 4 | 4 | 9 | 0 | 5 | 11 | 4 | 33 |
| I'm | 3 | 30 | 33 | 0 | 29 | 28 | 36 | 156 |
| I've | 4 | 14 | 8 | 0 | 5 | 19 | 3 | 49 |
| Ict | 3 | 0 | 2 | 0 | 1 | 0 | 0 | 3 |
| Idea | 4 | 11 | 26 | 11 | 15 | 12 | 20 | 95 |
| Ideal | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Ideally | 7 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Ideas | 5 | 4 | 12 | 7 | 21 | 6 | 9 | 59 |
| Identification | 14 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Identifications | 15 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Identified | 10 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Identify | 8 | 1 | 8 | 0 | 1 | 9 | 6 | 25 |
| Identifying | 11 | 0 | 1 | 2 | 0 | 1 | 3 | 7 |
| Identity | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Ideologically | 13 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Ideology | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ignore | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| li | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Illiterate | 10 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Image | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Imagination | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Imagine | 7 | 1 | 0 | 0 | 2 | 0 | 1 | 4 |
| Immediately | 11 | 1 | 1 | 0 | 1 | 1 | 0 | 4 |
| Immerging | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Impact | 6 | 3 | 2 | 9 | 6 | 5 | 6 | 31 |

| | | | | | | | | |
|----------------|----|----|---|----|----|----|----|----|
| Impacted | 8 | 0 | 0 | 3 | 0 | 1 | 1 | 5 |
| Impactful | 9 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Impacting | 9 | 2 | 1 | 0 | 1 | 0 | 3 | 7 |
| Impacts | 7 | 1 | 0 | 1 | 2 | 2 | 0 | 6 |
| Impart | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Imparted | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Implement | 9 | 0 | 5 | 0 | 2 | 0 | 2 | 9 |
| Implemented | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Implementing | 12 | 0 | 1 | 0 | 1 | 0 | 1 | 3 |
| Implementory | 12 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Implies | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Important | 9 | 13 | 5 | 26 | 10 | 21 | 10 | 85 |
| Importantly | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Importing | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Imposed | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Impossible | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Imposter | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Impressed | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Improve | 7 | 0 | 0 | 3 | 1 | 0 | 3 | 7 |
| Improved | 8 | 0 | 1 | 1 | 2 | 0 | 0 | 4 |
| Improvements | 12 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Improves | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Improving | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Inclined | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Include | 7 | 0 | 3 | 4 | 0 | 1 | 0 | 8 |
| Included | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Includes | 8 | 1 | 3 | 2 | 0 | 0 | 0 | 6 |
| Including | 9 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Income | 6 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Incorporate | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Increase | 8 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| Increased | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Increases | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Increasingly | 12 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Incubation | 10 | 0 | 0 | 0 | 5 | 0 | 0 | 5 |
| Incubator | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Incubators | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Incur | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Indeed | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Independent | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Indian | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Indians | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Individual | 10 | 2 | 0 | 3 | 1 | 7 | 21 | 34 |
| Individualized | 14 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Individually | 12 | 1 | 0 | 1 | 2 | 0 | 0 | 4 |
| Individuals | 11 | 1 | 0 | 3 | 1 | 2 | 1 | 8 |
| Industrial | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Industrialist | 13 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |

| | | | | | | | | |
|------------------------|----|---|---|---|----|---|---|----|
| Industrialists | 14 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Industries | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Industry | 8 | 1 | 0 | 0 | 9 | 7 | 1 | 18 |
| Industry's | 10 | 0 | 0 | 0 | 1 | 3 | 3 | 7 |
| Influence | 9 | 4 | 0 | 4 | 9 | 3 | 1 | 21 |
| Influenced | 10 | 1 | 0 | 2 | 2 | 3 | 5 | 13 |
| Influencer | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Influencers | 11 | 0 | 0 | 4 | 0 | 1 | 0 | 5 |
| Influences | 10 | 2 | 0 | 2 | 0 | 0 | 0 | 4 |
| Influencing | 11 | 2 | 0 | 1 | 0 | 0 | 1 | 4 |
| Influential | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Informed | 8 | 0 | 0 | 2 | 2 | 5 | 0 | 9 |
| Infrastructure | 14 | 0 | 0 | 0 | 3 | 0 | 3 | 6 |
| Infrastructures | 15 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Inhibit | 7 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Initiative | 10 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Initiatives | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Injected | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Innovate | 8 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Innovation | 10 | 4 | 7 | 2 | 21 | 4 | 9 | 47 |
| Innovations | 11 | 1 | 2 | 0 | 0 | 1 | 1 | 5 |
| Innovative | 10 | 0 | 0 | 4 | 3 | 0 | 5 | 12 |
| Innovativeness | 14 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Insert | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Inside | 6 | 0 | 1 | 3 | 0 | 0 | 0 | 4 |
| Insight | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Insights | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Inspired | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Inspiring | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Instagram | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Instance | 8 | 1 | 9 | 6 | 6 | 1 | 5 | 28 |
| Instantly | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Instead | 7 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Institutes | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Institution | 11 | 0 | 0 | 3 | 1 | 3 | 3 | 10 |
| Institutionally | 15 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Institutions | 12 | 0 | 0 | 3 | 7 | 5 | 2 | 17 |
| Intact | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Integrate | 9 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Integrated | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Intend | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Intended | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Inter | 5 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Interaction | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Interest | 8 | 0 | 0 | 1 | 3 | 2 | 0 | 6 |
| Interested | 10 | 2 | 0 | 1 | 3 | 1 | 0 | 7 |
| Interface | 9 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Interfacing | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |

| | | | | | | | | |
|----------------------|----|----|----|----|----|----|----|-----|
| Interfere | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Internal | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| International | 13 | 1 | 0 | 0 | 0 | 2 | 1 | 4 |
| Internship | 10 | 0 | 1 | 3 | 0 | 0 | 0 | 4 |
| Internships | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Interrupt | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Intervention | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Interventions | 13 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Interviewee | 11 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Interviewer | 11 | 1 | 1 | 0 | 1 | 1 | 1 | 5 |
| Intra | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Introduce | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Introduced | 10 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Introverts | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Invest | 6 | 0 | 0 | 1 | 1 | 1 | 1 | 4 |
| Invested | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Investing | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Investment | 10 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| Investor | 8 | 0 | 1 | 0 | 0 | 0 | 3 | 4 |
| Investors | 9 | 0 | 1 | 0 | 0 | 1 | 1 | 3 |
| Invisible | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Invite | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Invited | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Inviting | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Involve | 7 | 0 | 2 | 2 | 2 | 0 | 0 | 6 |
| Involved | 8 | 5 | 1 | 1 | 1 | 4 | 3 | 15 |
| Involves | 8 | 0 | 3 | 2 | 0 | 0 | 2 | 7 |
| Irrelevant | 10 | 0 | 1 | 0 | 2 | 0 | 0 | 3 |
| Isenberg | 8 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Isn't | 5 | 1 | 0 | 0 | 1 | 2 | 0 | 4 |
| Isolation | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| It'd | 4 | 1 | 0 | 0 | 2 | 2 | 0 | 5 |
| It'll | 5 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| It's | 4 | 37 | 16 | 55 | 47 | 62 | 85 | 302 |
| Italy | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Items | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Itin | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Japanese | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Jinja | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Job | 3 | 0 | 1 | 1 | 1 | 0 | 3 | 6 |
| Jobs | 4 | 0 | 1 | 1 | 0 | 4 | 0 | 6 |
| Join | 4 | 1 | 0 | 1 | 0 | 1 | 0 | 3 |
| Joined | 6 | 0 | 3 | 7 | 0 | 0 | 0 | 10 |
| Joining | 7 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Joint | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Journey | 7 | 1 | 0 | 3 | 0 | 1 | 0 | 5 |
| Judgment | 8 | 1 | 0 | 1 | 6 | 3 | 1 | 12 |
| Judgments | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |

| | | | | | | | | |
|---------------|----|----|----|----|----|----|-----|-----|
| Juice | 5 | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| Jumia | 5 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Jump | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Just | 4 | 35 | 15 | 53 | 36 | 50 | 29 | 218 |
| Justify | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Ka | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Kabale | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Kagaba | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Kampala | 7 | 0 | 1 | 5 | 4 | 0 | 0 | 10 |
| Katuramu | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Kaveera | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Keen | 4 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Keep | 4 | 1 | 0 | 6 | 1 | 0 | 0 | 8 |
| Keeping | 7 | 1 | 2 | 1 | 0 | 1 | 0 | 5 |
| Keeps | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Key | 3 | 7 | 10 | 4 | 10 | 15 | 4 | 50 |
| Keynote | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Kick | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Kikuubo | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Kind | 4 | 7 | 4 | 11 | 14 | 6 | 103 | 145 |
| Kinds | 5 | 0 | 2 | 1 | 1 | 0 | 1 | 5 |
| Knew | 4 | 0 | 2 | 2 | 0 | 1 | 0 | 5 |
| Know | 4 | 23 | 21 | 32 | 40 | 52 | 36 | 204 |
| Knowing | 7 | 1 | 1 | 3 | 0 | 0 | 0 | 5 |
| Knowledge | 9 | 6 | 11 | 16 | 5 | 2 | 1 | 41 |
| Knowledgeable | 13 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Known | 5 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Kusemererwa | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Kyambogo | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Lack | 4 | 0 | 4 | 0 | 1 | 0 | 1 | 6 |
| Lacking | 7 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| Lacteal | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ladies | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Lady | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Lagos | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Laid | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Land | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Landscape | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Lane | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Large | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Larger | 6 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Last | 4 | 0 | 5 | 4 | 13 | 6 | 4 | 32 |
| Lastly | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Late | 4 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Later | 5 | 1 | 0 | 1 | 0 | 3 | 0 | 5 |
| Laugh | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Launch | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Law | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |

| | | | | | | | | |
|------------|----|---|---|----|----|---|---|----|
| Laws | 4 | 0 | 1 | 2 | 0 | 0 | 0 | 3 |
| Lawyer | 6 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Lawyers | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Lay | 3 | 0 | 3 | 0 | 0 | 1 | 1 | 5 |
| Layer | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Laying | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Lays | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Lead | 4 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| Leader | 6 | 1 | 3 | 0 | 0 | 1 | 4 | 9 |
| Leaders | 7 | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| Leading | 7 | 0 | 0 | 0 | 1 | 2 | 1 | 4 |
| Leads | 5 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Leaflets | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Leaning | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Leant | 5 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Leap | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Learn | 5 | 6 | 3 | 23 | 8 | 1 | 1 | 42 |
| Learned | 7 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Learner | 7 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Learning | 8 | 7 | 2 | 9 | 7 | 3 | 2 | 30 |
| Learnt | 6 | 1 | 0 | 0 | 4 | 0 | 0 | 5 |
| Least | 5 | 1 | 3 | 0 | 2 | 6 | 1 | 13 |
| Leave | 5 | 1 | 2 | 0 | 3 | 2 | 3 | 11 |
| Leaves | 6 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Leaving | 7 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Lecture | 7 | 0 | 1 | 2 | 2 | 0 | 4 | 9 |
| Left | 4 | 2 | 0 | 1 | 1 | 0 | 0 | 4 |
| Legacy | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Lemme | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Leniencies | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Less | 4 | 1 | 2 | 3 | 2 | 3 | 3 | 14 |
| Lesson | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Lessons | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Let's | 5 | 1 | 2 | 4 | 3 | 0 | 5 | 15 |
| Level | 5 | 0 | 0 | 3 | 10 | 6 | 9 | 28 |
| Leveling | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Levels | 6 | 0 | 0 | 1 | 1 | 1 | 0 | 3 |
| Liberia | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Libraries | 9 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Light | 5 | 1 | 0 | 0 | 0 | 0 | 2 | 3 |
| Likelihood | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Likely | 6 | 0 | 0 | 5 | 2 | 6 | 0 | 13 |
| Limit | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Limited | 7 | 1 | 0 | 4 | 2 | 0 | 4 | 11 |
| Limiting | 8 | 0 | 1 | 0 | 0 | 0 | 2 | 3 |
| Line | 4 | 0 | 0 | 1 | 1 | 1 | 0 | 3 |
| Linear | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Link | 4 | 0 | 3 | 0 | 0 | 4 | 2 | 9 |

| | | | | | | | | |
|-------------------|----|----|---|----|----|---|----|----|
| Linked | 6 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Links | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Liquid | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Listen | 6 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Literacy | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Literally | 9 | 11 | 1 | 0 | 1 | 2 | 1 | 16 |
| Literary | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Literate | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Literature | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Litigation | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Little | 6 | 1 | 2 | 7 | 1 | 5 | 2 | 18 |
| Live | 4 | 0 | 1 | 0 | 1 | 0 | 4 | 6 |
| Lived | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 3 |
| Livelihood | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Lives | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Living | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Loan | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Loans | 5 | 0 | 1 | 3 | 1 | 0 | 1 | 6 |
| Local | 5 | 2 | 0 | 0 | 0 | 5 | 6 | 13 |
| Locally | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Location | 8 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| London | 6 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| Long | 4 | 1 | 2 | 2 | 1 | 3 | 0 | 9 |
| Longer | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Look | 4 | 1 | 9 | 7 | 20 | 8 | 6 | 51 |
| Looked | 6 | 0 | 0 | 4 | 3 | 1 | 0 | 8 |
| Looking | 7 | 7 | 6 | 11 | 17 | 7 | 13 | 61 |
| Looks | 5 | 0 | 1 | 1 | 1 | 1 | 1 | 5 |
| Loosened | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Lose | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Lost | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Lot's | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Love | 4 | 0 | 2 | 0 | 0 | 0 | 3 | 5 |
| Lovely | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Loves | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Low | 3 | 0 | 0 | 0 | 3 | 5 | 0 | 8 |
| Lowered | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Lowest | 6 | 0 | 0 | 0 | 1 | 2 | 1 | 4 |
| Loyalty | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Luckily | 7 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Luxury | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Lx | 2 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Lyantonde | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Made | 4 | 8 | 8 | 2 | 2 | 2 | 4 | 26 |
| Main | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Mainly | 6 | 0 | 0 | 3 | 2 | 2 | 1 | 8 |
| Major | 5 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Majority | 8 | 0 | 1 | 0 | 1 | 2 | 0 | 4 |

| | | | | | | | | |
|--------------------|----|----|----|----|----|----|----|----|
| Make | 4 | 14 | 21 | 17 | 28 | 7 | 9 | 96 |
| Makerere | 8 | 0 | 1 | 7 | 7 | 0 | 0 | 15 |
| Makers | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Makes | 5 | 6 | 1 | 3 | 9 | 1 | 0 | 20 |
| Making | 6 | 7 | 8 | 7 | 20 | 8 | 4 | 54 |
| Male | 4 | 2 | 0 | 0 | 10 | 3 | 1 | 16 |
| Man | 3 | 3 | 1 | 0 | 0 | 0 | 0 | 4 |
| Manage | 6 | 1 | 4 | 4 | 1 | 0 | 1 | 11 |
| Managed | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Management | 10 | 7 | 9 | 8 | 33 | 6 | 4 | 67 |
| Manager | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Managerial | 10 | 0 | 0 | 0 | 3 | 1 | 0 | 4 |
| Managing | 8 | 0 | 0 | 0 | 5 | 0 | 0 | 5 |
| Mandated | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Maneuver | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Manoeuvre | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Manual | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Manually | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Manuals | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Many | 4 | 1 | 11 | 11 | 12 | 7 | 3 | 45 |
| Mark | 4 | 0 | 0 | 0 | 1 | 0 | 3 | 4 |
| Marked | 6 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Market | 6 | 2 | 12 | 13 | 16 | 0 | 4 | 47 |
| Marketing | 9 | 0 | 1 | 1 | 4 | 3 | 4 | 13 |
| Markets | 7 | 0 | 3 | 2 | 8 | 4 | 1 | 18 |
| Marking | 7 | 0 | 1 | 0 | 5 | 0 | 0 | 6 |
| Marks | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Massively | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Master | 6 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Masters | 7 | 0 | 0 | 0 | 7 | 0 | 0 | 7 |
| Match | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Mate | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Material | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Materialise | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Math's | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Maths | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Matooke | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Matter | 6 | 1 | 0 | 4 | 2 | 4 | 0 | 11 |
| Matters | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Maximum | 7 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| May | 3 | 6 | 3 | 9 | 17 | 7 | 19 | 61 |
| Maybe | 5 | 7 | 11 | 15 | 32 | 14 | 1 | 80 |
| Mba | 3 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Mbarara | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Mean | 4 | 4 | 2 | 0 | 13 | 7 | 25 | 51 |
| Meaning | 7 | 1 | 6 | 0 | 0 | 1 | 0 | 8 |
| Meaningful | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Means | 5 | 0 | 10 | 3 | 3 | 1 | 3 | 20 |

| | | | | | | | | |
|----------------------|----|----|---|----|----|----|----|-----|
| Meant | 5 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Measure | 7 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| Measures | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Mechanical | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Media | 5 | 3 | 0 | 39 | 0 | 1 | 1 | 44 |
| Medium | 6 | 0 | 0 | 0 | 0 | 3 | 1 | 4 |
| Meet | 4 | 0 | 2 | 2 | 2 | 2 | 2 | 10 |
| Meeting | 7 | 1 | 0 | 1 | 1 | 1 | 0 | 4 |
| Melted | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Member | 6 | 5 | 0 | 3 | 0 | 0 | 0 | 8 |
| Members | 7 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Memory | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Men | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Mentally | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Mention | 7 | 1 | 0 | 4 | 0 | 2 | 2 | 9 |
| Mentioned | 9 | 4 | 2 | 2 | 3 | 15 | 2 | 28 |
| Mentor | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Mentoring | 9 | 0 | 0 | 2 | 0 | 1 | 0 | 3 |
| Mere | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Mess | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Message | 7 | 0 | 0 | 2 | 0 | 1 | 0 | 3 |
| Messages | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Messes | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Met | 3 | 1 | 1 | 0 | 1 | 2 | 0 | 5 |
| Method | 6 | 2 | 0 | 0 | 2 | 0 | 1 | 5 |
| Methodologies | 13 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Methods | 7 | 2 | 1 | 5 | 8 | 9 | 20 | 45 |
| Metric | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Micro | 5 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Microsoft | 9 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Midday | 6 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Middle | 6 | 4 | 1 | 0 | 2 | 1 | 0 | 8 |
| Might | 5 | 15 | 4 | 12 | 15 | 42 | 31 | 119 |
| Mile | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Millennials | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Million | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Mind | 4 | 4 | 4 | 4 | 13 | 3 | 1 | 29 |
| Minded | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Mindful | 7 | 1 | 0 | 1 | 4 | 2 | 7 | 15 |
| Mindfulness | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Minding | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Minds | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Mindset | 7 | 4 | 0 | 14 | 0 | 3 | 8 | 29 |
| Mindsets | 8 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Mine | 4 | 1 | 1 | 0 | 0 | 2 | 0 | 4 |
| Ministry | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Minorities | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Minority | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |

| | | | | | | | | |
|------------|----|---|----|-----|----|----|---|-----|
| Minute | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Minutes | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Mis | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Mismatch | 8 | 0 | 0 | 0 | 6 | 14 | 8 | 28 |
| Mismatches | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Mistake | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Mistakes | 8 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Mix | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Mixed | 5 | 2 | 0 | 1 | 1 | 0 | 0 | 4 |
| Mixture | 7 | 0 | 0 | 4 | 4 | 0 | 0 | 8 |
| Mobile | 6 | 2 | 1 | 1 | 5 | 0 | 0 | 9 |
| Mode | 4 | 0 | 1 | 0 | 1 | 0 | 1 | 3 |
| Model | 5 | 1 | 1 | 4 | 1 | 1 | 0 | 8 |
| Models | 6 | 1 | 1 | 1 | 1 | 0 | 3 | 7 |
| Moderate | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Modern | 6 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Modulator | 9 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Module | 6 | 3 | 0 | 3 | 0 | 3 | 9 | 18 |
| Modules | 7 | 1 | 0 | 2 | 0 | 4 | 8 | 15 |
| Mom | 3 | 1 | 1 | 4 | 0 | 0 | 0 | 6 |
| Moment | 6 | 2 | 1 | 2 | 1 | 3 | 1 | 10 |
| Mon's | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Money | 5 | 5 | 3 | 5 | 20 | 0 | 3 | 36 |
| Month | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Months | 6 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Morning | 7 | 1 | 0 | 1 | 0 | 0 | 1 | 3 |
| Mortgaged | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Mostly | 6 | 0 | 1 | 0 | 0 | 1 | 2 | 4 |
| Mother | 6 | 1 | 3 | 0 | 0 | 0 | 0 | 4 |
| Motivate | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Motivated | 9 | 0 | 5 | 0 | 0 | 0 | 1 | 6 |
| Motivates | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Motivation | 10 | 1 | 3 | 0 | 0 | 0 | 0 | 4 |
| Mould | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Mr | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 3 |
| Mtn | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Mubc | 4 | 0 | 0 | 207 | 0 | 0 | 0 | 207 |
| Mubs | 4 | 0 | 7 | 5 | 23 | 0 | 0 | 35 |
| Mubs1 | 5 | 0 | 23 | 0 | 0 | 0 | 0 | 23 |
| Mubs2 | 5 | 0 | 15 | 0 | 0 | 0 | 0 | 15 |
| Mubs3 | 5 | 0 | 16 | 0 | 0 | 0 | 0 | 16 |
| Mubs4 | 5 | 0 | 20 | 0 | 0 | 0 | 0 | 20 |
| Mubs5 | 5 | 0 | 18 | 0 | 0 | 0 | 0 | 18 |
| Mubs6 | 5 | 0 | 9 | 0 | 0 | 0 | 0 | 9 |
| MubsI2 | 6 | 0 | 0 | 0 | 41 | 0 | 0 | 41 |
| MubsI3 | 6 | 0 | 0 | 0 | 10 | 0 | 0 | 10 |
| MubsI4 | 6 | 0 | 0 | 0 | 8 | 0 | 0 | 8 |
| MubsI5 | 6 | 0 | 0 | 0 | 29 | 0 | 0 | 29 |

| | | | | | | | | |
|-------------|----|----|----|----|----|----|----|-----|
| Mubsl6 | 6 | 0 | 0 | 0 | 14 | 0 | 0 | 14 |
| Mubsl7 | 6 | 0 | 0 | 0 | 18 | 0 | 0 | 18 |
| Much | 4 | 7 | 7 | 43 | 23 | 12 | 16 | 108 |
| Muesa | 5 | 0 | 1 | 0 | 3 | 0 | 0 | 4 |
| Muganda | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Muk | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Multi | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Multiple | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Multiply | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Multitude | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Mum | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Music | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Muslim | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Muslims | 7 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Must | 4 | 3 | 1 | 6 | 4 | 1 | 0 | 15 |
| Mwesigwa | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Nac | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Nail | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Nakasero | 8 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Nakyanzi | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Nanti | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Narrowed | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Narrows | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| National | 8 | 0 | 0 | 0 | 3 | 0 | 1 | 4 |
| Naturally | 9 | 2 | 0 | 0 | 1 | 0 | 0 | 3 |
| Nature | 6 | 0 | 1 | 0 | 2 | 0 | 1 | 4 |
| Necessarily | 11 | 4 | 1 | 4 | 7 | 12 | 9 | 37 |
| Necessary | 9 | 0 | 0 | 2 | 0 | 4 | 1 | 7 |
| Necessity | 9 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Ned | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Need | 4 | 18 | 33 | 23 | 8 | 22 | 18 | 122 |
| Needed | 6 | 2 | 1 | 1 | 2 | 2 | 0 | 8 |
| Needs | 5 | 4 | 7 | 1 | 1 | 3 | 1 | 17 |
| Negative | 8 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Negotiate | 9 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Negotiation | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Neighbour | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Neighbours | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Nelson | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Nervous | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Network | 7 | 0 | 5 | 0 | 0 | 1 | 4 | 10 |
| Networking | 10 | 1 | 9 | 0 | 0 | 1 | 2 | 13 |
| Networks | 8 | 3 | 0 | 0 | 0 | 3 | 12 | 18 |
| Never | 5 | 3 | 1 | 0 | 1 | 1 | 6 | 12 |
| New | 3 | 0 | 12 | 5 | 8 | 2 | 3 | 30 |
| Newcastle | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| News | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Next | 4 | 6 | 2 | 13 | 15 | 7 | 9 | 52 |

| | | | | | | | | |
|----------------------|----|----|-----|---|----|----|----|-----|
| Ngo | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Ngos | 4 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Nice | 4 | 0 | 1 | 0 | 0 | 0 | 2 | 3 |
| Nicely | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Nigeria | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Nine | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Ninsiima | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Noble | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Nobody | 6 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Nodding | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Noise | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Non | 3 | 1 | 0 | 2 | 2 | 1 | 2 | 8 |
| None | 4 | 1 | 1 | 0 | 2 | 0 | 1 | 5 |
| Nonexistent | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Norm | 4 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Normal | 6 | 0 | 0 | 0 | 2 | 2 | 0 | 4 |
| Normalized | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Normally | 8 | 0 | 0 | 2 | 4 | 1 | 1 | 8 |
| Norms | 5 | 2 | 0 | 1 | 0 | 0 | 4 | 7 |
| North | 5 | 0 | 1 | 4 | 1 | 0 | 0 | 6 |
| Northerners | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Note | 4 | 0 | 1 | 3 | 0 | 0 | 0 | 4 |
| Noted | 5 | 0 | 0 | 2 | 3 | 0 | 0 | 5 |
| Notes | 5 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Nothing | 7 | 1 | 6 | 2 | 3 | 5 | 1 | 18 |
| Notice | 6 | 0 | 0 | 1 | 0 | 1 | 1 | 3 |
| Noticed | 7 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Number | 6 | 63 | 103 | 3 | 78 | 80 | 74 | 401 |
| Numbers | 7 | 0 | 3 | 1 | 1 | 5 | 0 | 10 |
| Numerous | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Nursing | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Nurtured | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Nuts | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| O'clock | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Objective | 9 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Obligation | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Obligations | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Observable | 10 | 0 | 0 | 0 | 1 | 2 | 1 | 4 |
| Observation | 11 | 1 | 1 | 2 | 1 | 1 | 0 | 6 |
| Observational | 13 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Observations | 12 | 0 | 4 | 2 | 0 | 1 | 1 | 8 |
| Observe | 7 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Observed | 8 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Obsolesce | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Obstruction | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Obtained | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Obvious | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Obviously | 9 | 4 | 2 | 5 | 1 | 2 | 2 | 16 |

| | | | | | | | | |
|-----------------------|----|----|----|----|----|----|----|-----|
| Odds | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Offend | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Offer | 5 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Office | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Offices | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Official | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Often | 5 | 3 | 0 | 0 | 1 | 3 | 0 | 7 |
| Oh | 2 | 8 | 0 | 0 | 3 | 1 | 3 | 15 |
| Okay | 4 | 38 | 18 | 35 | 54 | 57 | 47 | 249 |
| Old | 3 | 2 | 6 | 0 | 0 | 0 | 0 | 8 |
| Older | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| One | 3 | 55 | 58 | 43 | 74 | 85 | 46 | 361 |
| One's | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Oneself | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Online | 6 | 1 | 2 | 5 | 0 | 0 | 0 | 8 |
| Onto | 4 | 0 | 0 | 6 | 0 | 1 | 0 | 7 |
| Openings | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Operate | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Operates | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Operating | 9 | 0 | 2 | 0 | 0 | 0 | 1 | 3 |
| Operational | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Operations | 10 | 1 | 0 | 0 | 0 | 1 | 1 | 3 |
| Opinion | 7 | 5 | 0 | 5 | 1 | 1 | 1 | 13 |
| Opinions | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Opportunities | 13 | 3 | 6 | 9 | 2 | 3 | 7 | 30 |
| Opportunity | 11 | 8 | 8 | 7 | 10 | 8 | 16 | 57 |
| Opposed | 7 | 1 | 1 | 4 | 0 | 0 | 2 | 8 |
| Opposite | 8 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Optic | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Option | 6 | 2 | 3 | 2 | 1 | 0 | 2 | 10 |
| Optional | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Options | 7 | 0 | 0 | 4 | 1 | 0 | 1 | 6 |
| Order | 5 | 0 | 6 | 2 | 1 | 0 | 1 | 10 |
| Ordinate | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Ordinated | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Organic | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Organisation | 12 | 0 | 1 | 0 | 4 | 6 | 0 | 11 |
| Organisations | 13 | 0 | 0 | 0 | 3 | 4 | 1 | 8 |
| Organise | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Organization | 12 | 0 | 0 | 3 | 0 | 1 | 5 | 9 |
| Organizational | 14 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Organizations | 13 | 0 | 0 | 5 | 0 | 0 | 4 | 9 |
| Organize | 8 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Organizing | 10 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Orientation | 11 | 2 | 0 | 0 | 4 | 0 | 0 | 6 |
| Oriented | 8 | 0 | 0 | 0 | 11 | 1 | 0 | 12 |
| Orienting | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Original | 8 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |

| | | | | | | | | |
|---------------|----|----|----|----|----|----|----|----|
| Originally | 10 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Origins | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Others | 6 | 0 | 11 | 1 | 3 | 18 | 3 | 36 |
| Otherwise | 9 | 0 | 0 | 2 | 2 | 1 | 0 | 5 |
| Outcome | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Outcompete | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Outliers | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Outline | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Output | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Outside | 7 | 10 | 15 | 45 | 4 | 3 | 2 | 79 |
| Overall | 7 | 0 | 0 | 4 | 0 | 1 | 0 | 5 |
| Overcome | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Overlap | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Oversee | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Overview | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Oxford | 6 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Oxfords | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Package | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Pads | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Page | 4 | 0 | 1 | 1 | 4 | 0 | 0 | 6 |
| Pakistan | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Palmer | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Paper | 5 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Parent | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Parents | 7 | 0 | 0 | 1 | 3 | 0 | 5 | 9 |
| Park | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Parked | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Part | 4 | 10 | 4 | 15 | 12 | 9 | 17 | 67 |
| Participants | 12 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Participate | 11 | 0 | 0 | 2 | 2 | 0 | 1 | 5 |
| Participated | 12 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Participating | 13 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Participation | 13 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Particular | 10 | 1 | 1 | 3 | 2 | 1 | 7 | 15 |
| Particularly | 12 | 0 | 2 | 3 | 3 | 3 | 1 | 12 |
| Partly | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Partner | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Partners | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Partnership | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Parts | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Party | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Pass | 4 | 0 | 1 | 3 | 2 | 2 | 0 | 8 |
| Passable | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Passing | 7 | 1 | 0 | 0 | 0 | 2 | 0 | 3 |
| Passion | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Passionate | 10 | 0 | 0 | 0 | 1 | 3 | 0 | 4 |
| Password | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Past | 4 | 1 | 0 | 0 | 0 | 4 | 2 | 7 |

| | | | | | | | | |
|---------------------|----|----|----|----|----|----|----|-----|
| Pathways | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Patron | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Patterns | 8 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Pay | 3 | 0 | 0 | 2 | 1 | 0 | 2 | 5 |
| Paying | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Payment | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Peers | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Pen | 3 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Penetrate | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| People | 6 | 26 | 35 | 56 | 42 | 10 | 28 | 197 |
| People's | 8 | 0 | 0 | 2 | 2 | 1 | 3 | 8 |
| Per | 3 | 1 | 2 | 0 | 4 | 6 | 4 | 17 |
| Perceive | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Perceived | 9 | 0 | 0 | 0 | 0 | 6 | 0 | 6 |
| Percent | 7 | 1 | 0 | 0 | 0 | 1 | 1 | 3 |
| Perception | 10 | 0 | 2 | 0 | 0 | 0 | 2 | 4 |
| Perceptual | 12 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Perceptions | 11 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Perfect | 7 | 0 | 2 | 2 | 0 | 1 | 2 | 7 |
| Performance | 11 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Perhaps | 7 | 0 | 0 | 0 | 3 | 17 | 12 | 32 |
| Period | 6 | 0 | 0 | 1 | 1 | 1 | 1 | 4 |
| Person | 6 | 5 | 12 | 12 | 8 | 4 | 7 | 48 |
| Personal | 8 | 2 | 3 | 1 | 0 | 4 | 0 | 10 |
| Personality | 11 | 0 | 0 | 1 | 3 | 0 | 5 | 9 |
| Personally | 10 | 4 | 1 | 6 | 0 | 2 | 1 | 14 |
| Personnel | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Perspective | 11 | 1 | 1 | 7 | 9 | 6 | 7 | 31 |
| Perspectives | 12 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Pharmacy | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Phase | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Phd | 3 | 0 | 3 | 0 | 1 | 0 | 0 | 4 |
| Phillip | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Phionah | 7 | 0 | 0 | 0 | 4 | 0 | 0 | 4 |
| Phone | 5 | 2 | 0 | 1 | 0 | 0 | 0 | 3 |
| Physical | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Physically | 10 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Physics | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Picture | 7 | 1 | 0 | 0 | 2 | 1 | 1 | 5 |
| Pictured | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Pin | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Pitch | 5 | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| Placement | 9 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Placements | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Plane | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Platform | 8 | 0 | 0 | 1 | 2 | 0 | 1 | 4 |
| Platforms | 9 | 0 | 1 | 2 | 0 | 0 | 0 | 3 |
| Players | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |

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|---------------|----|---|----|----|----|----|----|----|
| Pleasantly | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Please | 6 | 1 | 0 | 10 | 1 | 3 | 2 | 17 |
| Plenty | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Plug | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Plus | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Pocket | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Point | 5 | 7 | 11 | 16 | 7 | 7 | 12 | 60 |
| Points | 6 | 2 | 0 | 1 | 2 | 2 | 2 | 9 |
| Policies | 8 | 0 | 0 | 1 | 0 | 1 | 3 | 5 |
| Policy | 6 | 1 | 4 | 4 | 16 | 14 | 8 | 47 |
| Poor | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Popcorns | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Pork | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Porous | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Porpoises | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Portion | 7 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Portray | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Position | 8 | 0 | 0 | 2 | 0 | 1 | 0 | 3 |
| Positioning | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Positions | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Positive | 8 | 0 | 0 | 2 | 0 | 1 | 3 | 6 |
| Possess | 7 | 0 | 2 | 2 | 0 | 2 | 2 | 8 |
| Possessed | 9 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Possesses | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Possessions | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Possible | 8 | 0 | 0 | 2 | 0 | 3 | 0 | 5 |
| Possibly | 8 | 0 | 1 | 1 | 0 | 0 | 6 | 8 |
| Post | 4 | 0 | 0 | 2 | 0 | 1 | 0 | 3 |
| Posts | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Posy | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Pot | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Potential | 9 | 1 | 0 | 1 | 0 | 0 | 6 | 8 |
| Potentially | 11 | 1 | 0 | 2 | 1 | 0 | 6 | 10 |
| Pounds | 6 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Power | 5 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Practical | 9 | 4 | 3 | 5 | 4 | 0 | 0 | 16 |
| Practically | 11 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Practicals | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Practice | 8 | 5 | 0 | 0 | 1 | 5 | 1 | 12 |
| Practices | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Practicing | 10 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Pray | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Pre | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Precedes | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Precise | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Predominantly | 13 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Preeminent | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Prefer | 6 | 0 | 1 | 1 | 0 | 0 | 1 | 3 |

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| Prepare | 7 | 0 | 0 | 2 | 0 | 1 | 1 | 4 |
| Prepared | 8 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Prepares | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Present | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Presentation | 12 | 1 | 0 | 0 | 1 | 2 | 0 | 4 |
| Presenting | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| President | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Pretty | 6 | 2 | 0 | 0 | 0 | 1 | 0 | 3 |
| Previous | 8 | 0 | 0 | 4 | 0 | 3 | 6 | 13 |
| Previously | 10 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Price | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Primarily | 9 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Primary | 7 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Principle | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Principles | 10 | 0 | 0 | 0 | 9 | 0 | 0 | 9 |
| Prior | 5 | 0 | 0 | 0 | 0 | 2 | 1 | 3 |
| Privacy | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Private | 7 | 0 | 0 | 1 | 3 | 0 | 3 | 7 |
| Privilege | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Pro | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Proactive | 9 | 0 | 0 | 0 | 6 | 0 | 0 | 6 |
| Probability | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Probably | 8 | 3 | 0 | 10 | 8 | 28 | 7 | 56 |
| Problem | 7 | 4 | 6 | 3 | 5 | 1 | 7 | 26 |
| Problems | 8 | 0 | 1 | 0 | 0 | 0 | 2 | 3 |
| Procedure | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Proceed | 7 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Process | 7 | 1 | 6 | 3 | 4 | 1 | 3 | 18 |
| Procure | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Procurement | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Produce | 7 | 0 | 0 | 1 | 3 | 0 | 0 | 4 |
| Producing | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Professional | 12 | 6 | 1 | 0 | 0 | 0 | 1 | 8 |
| Professor | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Professors | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Profile | 7 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| Profit | 6 | 2 | 0 | 4 | 0 | 0 | 0 | 6 |
| Profits | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Program | 7 | 0 | 0 | 0 | 3 | 3 | 0 | 6 |
| Programs | 8 | 0 | 0 | 0 | 3 | 1 | 0 | 4 |
| Progress | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Progressed | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Prohibitive | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Project | 7 | 0 | 3 | 1 | 3 | 0 | 2 | 9 |
| Projects | 8 | 0 | 1 | 0 | 1 | 1 | 7 | 10 |
| Prominent | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Promised | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Promote | 7 | 0 | 0 | 0 | 2 | 0 | 1 | 3 |

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| Promoting | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Prompted | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Propelling | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Proper | 6 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Properly | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Proportion | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Proposed | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Protect | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Protection | 10 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Protestants | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Proud | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Provide | 7 | 1 | 0 | 1 | 2 | 2 | 1 | 7 |
| Provided | 8 | 1 | 0 | 0 | 1 | 1 | 0 | 3 |
| Provider | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Provides | 8 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Provision | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Psychological | 13 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Public | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Publication | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Publish | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Purpose | 7 | 0 | 0 | 2 | 0 | 1 | 0 | 3 |
| Purposeful | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Purposes | 8 | 0 | 1 | 3 | 1 | 1 | 0 | 6 |
| Pursue | 6 | 1 | 4 | 1 | 0 | 0 | 0 | 6 |
| Push | 4 | 1 | 1 | 4 | 0 | 1 | 2 | 9 |
| Pushed | 6 | 1 | 0 | 0 | 2 | 0 | 1 | 4 |
| Pushing | 7 | 5 | 0 | 0 | 0 | 0 | 1 | 6 |
| Pushy | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Qaa | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Qualities | 9 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| Quality | 7 | 1 | 0 | 0 | 4 | 1 | 1 | 7 |
| Questioned | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Quick | 5 | 0 | 2 | 3 | 2 | 1 | 0 | 8 |
| Quickly | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Quiet | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Quite | 5 | 3 | 0 | 6 | 0 | 7 | 2 | 18 |
| Quote | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Quoting | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Race | 4 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Rain | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Rains | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Raise | 5 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Raised | 6 | 1 | 0 | 2 | 0 | 0 | 0 | 3 |
| Random | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Range | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Ranking | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Rankings | 8 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Rare | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

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| Rarely | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Rate | 4 | 0 | 1 | 0 | 4 | 0 | 0 | 5 |
| Rates | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Rather | 6 | 3 | 1 | 7 | 4 | 3 | 1 | 19 |
| Rating | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Ratio | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Ratios | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Re | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Reach | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Reached | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Reaching | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Reaction | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Reactions | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Read | 4 | 1 | 2 | 1 | 1 | 1 | 0 | 6 |
| Readiness | 9 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Reading | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Ready | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Real | 4 | 0 | 0 | 5 | 2 | 2 | 3 | 12 |
| Realise | 7 | 0 | 3 | 0 | 1 | 0 | 0 | 4 |
| Realised | 8 | 0 | 4 | 0 | 1 | 0 | 0 | 5 |
| Realising | 9 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Realistic | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Reality | 7 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| Realize | 7 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Realized | 8 | 1 | 0 | 2 | 0 | 0 | 0 | 3 |
| Really | 6 | 16 | 8 | 17 | 29 | 31 | 16 | 117 |
| Rear | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Reason | 6 | 1 | 3 | 0 | 2 | 0 | 1 | 7 |
| Reasons | 7 | 0 | 0 | 1 | 1 | 1 | 0 | 3 |
| Rebuild | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Recall | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Recaptured | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Recaptures | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Receive | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Received | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Receiving | 9 | 0 | 1 | 1 | 0 | 1 | 0 | 3 |
| Recent | 6 | 0 | 0 | 1 | 1 | 1 | 0 | 3 |
| Recently | 8 | 0 | 1 | 1 | 0 | 1 | 2 | 5 |
| Reckon | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Recognise | 9 | 3 | 9 | 0 | 17 | 0 | 0 | 29 |
| Recognised | 10 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Recognising | 11 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Recognition | 11 | 2 | 3 | 2 | 4 | 2 | 3 | 16 |
| Recommend | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Record | 6 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Recorded | 8 | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| Recording | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Records | 7 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |

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|----------------------|----|---|----|---|----|----|---|----|
| Recruit | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Recruitment | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Recruitment | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Red | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Redeem | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Redefine | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Redesigned | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Reduce | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Refer | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Referred | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Refers | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Reflect | 7 | 2 | 3 | 3 | 10 | 11 | 2 | 31 |
| Reflected | 9 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Reflecting | 10 | 0 | 0 | 0 | 3 | 1 | 1 | 5 |
| Reflection | 10 | 7 | 12 | 4 | 15 | 19 | 3 | 60 |
| Reflective | 10 | 0 | 0 | 0 | 0 | 4 | 1 | 5 |
| Reflects | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Refreshing | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Refund | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Regard | 6 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Regarded | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Regarding | 9 | 1 | 0 | 3 | 0 | 1 | 0 | 5 |
| Regardless | 10 | 0 | 1 | 0 | 0 | 2 | 0 | 3 |
| Regards | 7 | 0 | 0 | 0 | 1 | 2 | 1 | 4 |
| Region | 6 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| Regions | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Registration | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Regulations | 11 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Regulators | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Regulatory | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Reinforce | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Reinforcing | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Relate | 6 | 1 | 2 | 0 | 0 | 0 | 1 | 4 |
| Related | 7 | 0 | 1 | 1 | 1 | 1 | 0 | 4 |
| Relates | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Relation | 8 | 0 | 1 | 0 | 1 | 0 | 1 | 3 |
| Relationship | 12 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Relationships | 13 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Relative | 8 | 0 | 0 | 0 | 4 | 5 | 3 | 12 |
| Relatives | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Relaxed | 7 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Relevant | 8 | 0 | 2 | 0 | 1 | 0 | 0 | 3 |
| Religion | 8 | 0 | 0 | 7 | 0 | 0 | 0 | 7 |
| Religions | 9 | 0 | 1 | 2 | 0 | 0 | 0 | 3 |
| Remain | 6 | 0 | 1 | 0 | 1 | 0 | 1 | 3 |
| Remaining | 9 | 0 | 0 | 1 | 1 | 0 | 1 | 3 |
| Remains | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Remind | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |

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| Remodel | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Repeat | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Replace | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Replacements | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Report | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Reports | 7 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Represent | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Representing | 12 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Require | 7 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| Required | 8 | 0 | 1 | 3 | 2 | 0 | 0 | 6 |
| Requirement | 11 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Requirements | 12 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Requires | 8 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Researcher | 10 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Reserved | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Residual | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Residue | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Resignation | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Resilience | 10 | 0 | 0 | 0 | 0 | 4 | 0 | 4 |
| Resilient | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Resource | 8 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Resourcefulness | 15 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Resources | 9 | 1 | 1 | 8 | 1 | 1 | 0 | 12 |
| Respect | 7 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Respecting | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Respond | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Responding | 10 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Response | 8 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Responses | 9 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Responsibilities | 16 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Responsibility | 14 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Responsible | 11 | 3 | 0 | 3 | 0 | 0 | 0 | 6 |
| Rest | 4 | 0 | 0 | 3 | 1 | 2 | 5 | 11 |
| Restrict | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Restricted | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Restrictions | 12 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Restricts | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Result | 6 | 0 | 1 | 2 | 0 | 1 | 1 | 5 |
| Results | 7 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Reusable | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Revenue | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Review | 6 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Revived | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Revolution | 10 | 0 | 1 | 0 | 2 | 0 | 0 | 3 |
| Revolutionize | 13 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Revolves | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Revolving | 9 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Rich | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

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|---------------------|----|----|---|----|----|----|----|-----|
| Richard | 7 | 3 | 0 | 0 | 0 | 1 | 2 | 6 |
| Ride | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Right | 5 | 6 | 9 | 10 | 8 | 5 | 7 | 45 |
| Rights | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Risk | 4 | 8 | 1 | 3 | 6 | 3 | 5 | 26 |
| Risking | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Risks | 5 | 1 | 0 | 0 | 0 | 1 | 2 | 4 |
| Road | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Robustness | 10 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Rogers | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Role | 4 | 1 | 0 | 5 | 2 | 4 | 7 | 19 |
| Room | 4 | 0 | 0 | 0 | 0 | 1 | 5 | 6 |
| Rooms | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Root | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Roots | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Rotary | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Rub | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Rubbish | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Rules | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Rush | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 4 |
| Rushed | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Rushing | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sad | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sadly | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Safe | 4 | 0 | 0 | 0 | 6 | 0 | 0 | 6 |
| Safely | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Said | 4 | 22 | 9 | 7 | 21 | 24 | 14 | 97 |
| Sake | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Salary | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sale | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sales | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Sanitary | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Sao | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Satisfied | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Satisfy | 7 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Saturated | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Save | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Say | 3 | 18 | 9 | 26 | 32 | 48 | 29 | 162 |
| Saying | 6 | 8 | 2 | 9 | 9 | 4 | 13 | 45 |
| Says | 4 | 0 | 2 | 0 | 1 | 1 | 0 | 4 |
| Scale | 5 | 0 | 0 | 0 | 4 | 3 | 4 | 11 |
| Scan | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Scanning | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Scared | 6 | 3 | 0 | 1 | 0 | 0 | 0 | 4 |
| Scenario | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Scene | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Schedule | 8 | 0 | 0 | 0 | 7 | 0 | 0 | 7 |
| Scholarships | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |

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|-------------------|----|---|----|---|----|---|---|----|
| School | 6 | 7 | 14 | 5 | 8 | 1 | 0 | 35 |
| Schools | 7 | 2 | 1 | 0 | 5 | 1 | 0 | 9 |
| Scored | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Scratch | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Screen | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Search | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Searching | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Seat | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Secondary | 9 | 1 | 1 | 0 | 1 | 1 | 0 | 4 |
| Secondly | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Secretary | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Section | 7 | 1 | 0 | 3 | 2 | 0 | 0 | 6 |
| Sector | 6 | 0 | 0 | 2 | 4 | 1 | 5 | 12 |
| Sectors | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Secured | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Security | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Seek | 4 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Seem | 4 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| Seemingly | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Segment | 7 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Self | 4 | 2 | 5 | 0 | 2 | 7 | 1 | 17 |
| Selfishly | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Selfly | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Semester | 8 | 0 | 2 | 0 | 5 | 0 | 2 | 9 |
| Seminar | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Senate | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Send | 4 | 0 | 0 | 3 | 1 | 1 | 1 | 6 |
| Senior | 6 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Sense | 5 | 1 | 0 | 1 | 1 | 3 | 2 | 8 |
| Sent | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Separate | 8 | 0 | 1 | 1 | 1 | 3 | 0 | 6 |
| Separately | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Serious | 7 | 1 | 1 | 0 | 2 | 0 | 0 | 4 |
| Servants | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Service | 7 | 1 | 0 | 1 | 4 | 0 | 1 | 7 |
| Services | 8 | 1 | 1 | 0 | 2 | 0 | 0 | 4 |
| Serving | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Settle | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Setup | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Seven | 5 | 2 | 1 | 0 | 13 | 0 | 1 | 17 |
| Several | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Shall | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Shape | 5 | 0 | 0 | 1 | 2 | 0 | 1 | 4 |
| Shapes | 6 | 0 | 1 | 5 | 0 | 0 | 0 | 6 |
| Shaping | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Sharable | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Share | 5 | 0 | 1 | 3 | 0 | 1 | 2 | 7 |
| Shared | 6 | 0 | 1 | 4 | 0 | 0 | 0 | 5 |

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|---------------|----|---|---|---|---|----|---|----|
| Shareholders | 12 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Shawna | 6 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Shell | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Shift | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Shifted | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Shillings | 9 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Shoe | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Shop | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Short | 5 | 0 | 1 | 1 | 1 | 0 | 0 | 3 |
| Shot | 4 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| Shouldn't | 9 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Show | 4 | 0 | 0 | 1 | 3 | 1 | 2 | 7 |
| Showcase | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Showed | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Showing | 7 | 1 | 0 | 1 | 0 | 0 | 2 | 4 |
| Shown | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Shows | 5 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Side | 4 | 2 | 1 | 7 | 9 | 8 | 4 | 31 |
| Sides | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Significance | 12 | 0 | 0 | 0 | 0 | 2 | 3 | 5 |
| Significantly | 13 | 0 | 0 | 0 | 0 | 11 | 0 | 11 |
| Similar | 7 | 0 | 0 | 0 | 1 | 1 | 6 | 8 |
| Simple | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Simplest | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Simply | 6 | 0 | 0 | 2 | 1 | 0 | 1 | 4 |
| Single | 6 | 3 | 3 | 0 | 0 | 0 | 1 | 7 |
| Sisay | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Sit | 3 | 0 | 0 | 0 | 1 | 0 | 3 | 4 |
| Sites | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Sitting | 7 | 0 | 0 | 0 | 1 | 0 | 3 | 4 |
| Situation | 9 | 0 | 0 | 0 | 1 | 0 | 6 | 7 |
| Situations | 10 | 0 | 1 | 1 | 0 | 0 | 1 | 3 |
| Sixteen | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sixth | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Size | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Skilled | 7 | 0 | 0 | 0 | 1 | 4 | 0 | 5 |
| Skillful | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Skilling | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Skip | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Sleep | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Slightly | 8 | 3 | 0 | 2 | 1 | 2 | 0 | 8 |
| Slowly | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Small | 5 | 1 | 4 | 3 | 2 | 0 | 4 | 14 |
| Smart | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Smartphone | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Smooth | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Snap | 4 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| Snapshot | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |

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|----------------------|----|---|----|----|----|----|----|-----|
| Soap | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Social | 6 | 3 | 0 | 40 | 2 | 8 | 2 | 55 |
| Societal | 8 | 2 | 0 | 1 | 0 | 0 | 2 | 5 |
| Societies | 9 | 2 | 0 | 1 | 1 | 1 | 0 | 5 |
| Society | 7 | 5 | 10 | 2 | 1 | 2 | 5 | 25 |
| Soft | 4 | 0 | 0 | 1 | 0 | 4 | 0 | 5 |
| Sole | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Solely | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Solution | 8 | 0 | 0 | 2 | 0 | 0 | 4 | 6 |
| Solutions | 9 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Solve | 5 | 1 | 1 | 0 | 0 | 1 | 3 | 6 |
| Solving | 7 | 0 | 3 | 1 | 0 | 0 | 0 | 4 |
| Somebody | 8 | 1 | 0 | 0 | 1 | 1 | 12 | 15 |
| Somebody's | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Somehow | 7 | 0 | 1 | 0 | 6 | 0 | 2 | 9 |
| Someone | 7 | 4 | 21 | 10 | 19 | 7 | 2 | 63 |
| Someone's | 9 | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| Something | 9 | 8 | 13 | 22 | 31 | 27 | 17 | 118 |
| Sometime | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sometimes | 9 | 2 | 2 | 1 | 7 | 13 | 5 | 30 |
| Somewhere | 9 | 0 | 1 | 0 | 1 | 3 | 0 | 5 |
| Son | 3 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Soon | 4 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Sorry | 5 | 1 | 3 | 1 | 3 | 1 | 0 | 9 |
| Sort | 4 | 4 | 0 | 2 | 3 | 17 | 8 | 34 |
| Sorts | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Sound | 5 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Sounding | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sounds | 6 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Source | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sources | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| South | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Space | 5 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Spain | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Spare | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sparing | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Speak | 5 | 0 | 0 | 2 | 0 | 1 | 4 | 7 |
| Speakers | 8 | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| Speaking | 8 | 3 | 0 | 0 | 6 | 4 | 3 | 16 |
| Specialist | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Specific | 8 | 0 | 0 | 2 | 3 | 2 | 3 | 10 |
| Specifically | 12 | 0 | 1 | 2 | 0 | 2 | 0 | 5 |
| Specification | 13 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Speech | 6 | 2 | 0 | 0 | 2 | 0 | 0 | 4 |
| Speed | 5 | 0 | 2 | 0 | 0 | 5 | 0 | 7 |
| Spend | 5 | 0 | 0 | 0 | 3 | 0 | 1 | 4 |
| Spending | 8 | 0 | 0 | 1 | 0 | 2 | 1 | 4 |
| Spent | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |

| | | | | | | | | |
|---------------------|----|---|----|----|----|---|----|----|
| Split | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Splitted | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Spoke | 5 | 1 | 0 | 0 | 0 | 0 | 2 | 3 |
| Spoken | 6 | 0 | 0 | 1 | 0 | 1 | 1 | 3 |
| Sponsorship | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sports | 6 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Spotted | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Spread | 6 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Sta | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Staff | 5 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Stage | 5 | 0 | 0 | 1 | 5 | 0 | 0 | 6 |
| Stages | 6 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Stake | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Stakeholders | 12 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Stand | 5 | 1 | 0 | 0 | 3 | 0 | 2 | 6 |
| Standard | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Start | 5 | 4 | 6 | 18 | 28 | 4 | 9 | 69 |
| Started | 7 | 3 | 2 | 10 | 7 | 5 | 4 | 31 |
| Starting | 8 | 1 | 0 | 9 | 2 | 4 | 2 | 18 |
| Starts | 6 | 0 | 0 | 0 | 0 | 2 | 3 | 5 |
| Startups | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| State | 5 | 0 | 2 | 0 | 0 | 1 | 0 | 3 |
| Stated | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Statement | 9 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| Statements | 10 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Statistics | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Status | 6 | 0 | 0 | 1 | 1 | 1 | 0 | 3 |
| Stay | 4 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Step | 4 | 1 | 0 | 1 | 1 | 2 | 1 | 6 |
| Stepped | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Stepping | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Steps | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Stick | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sticking | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Still | 5 | 8 | 17 | 9 | 10 | 3 | 22 | 69 |
| Stock | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Stocks | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Stone | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Stones | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Stop | 4 | 0 | 0 | 2 | 2 | 0 | 2 | 6 |
| Stopped | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Stories | 7 | 1 | 0 | 2 | 1 | 1 | 1 | 6 |
| Story | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Straight | 8 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Strategic | 9 | 0 | 0 | 0 | 3 | 3 | 1 | 7 |
| Strategies | 10 | 0 | 12 | 0 | 0 | 1 | 0 | 13 |
| Strategists | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Strategize | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |

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|-----------------------|----|----|---|---|---|----|----|----|
| Strategy | 8 | 4 | 8 | 2 | 6 | 20 | 7 | 47 |
| Strengths | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Stress | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Stressed | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Strict | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Strictly | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Strong | 6 | 2 | 0 | 1 | 0 | 0 | 0 | 3 |
| Stronger | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Strongest | 9 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Structure | 9 | 0 | 0 | 0 | 1 | 2 | 2 | 5 |
| Structured | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Structures | 10 | 0 | 0 | 0 | 0 | 2 | 4 | 6 |
| Struggle | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Struggling | 10 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Stuart | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Stubbornly | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Student's | 9 | 1 | 0 | 0 | 2 | 1 | 1 | 5 |
| Studied | 7 | 0 | 1 | 1 | 1 | 0 | 2 | 5 |
| Studies | 7 | 0 | 0 | 3 | 1 | 0 | 5 | 9 |
| Study | 5 | 6 | 4 | 9 | 6 | 2 | 5 | 32 |
| Studying | 8 | 7 | 2 | 8 | 5 | 0 | 0 | 22 |
| Stuff | 5 | 18 | 6 | 6 | 3 | 4 | 1 | 38 |
| Style | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Styles | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Subconsciously | 14 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Submission | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Submit | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Submitted | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Subsidy | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Succeed | 7 | 0 | 2 | 0 | 0 | 0 | 1 | 3 |
| Success | 7 | 1 | 2 | 1 | 3 | 3 | 1 | 11 |
| Successes | 9 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Successful | 10 | 9 | 6 | 5 | 5 | 6 | 17 | 48 |
| Successfully | 12 | 0 | 1 | 0 | 0 | 0 | 1 | 2 |
| Successively | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Suddenly | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Sufficient | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sugar | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Suggest | 7 | 0 | 1 | 0 | 3 | 4 | 3 | 11 |
| Suggesting | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Suggestions | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Suggests | 8 | 0 | 0 | 0 | 1 | 1 | 1 | 3 |
| Suit | 4 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| Suitable | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Suited | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Suits | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Summarize | 9 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| Summary | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |

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|----------------|----|----|----|----|----|----|----|----|
| Summer | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Summery | 7 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Sums | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Super | 5 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Supermarket | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Supervise | 9 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Supervised | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Supervising | 11 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Supervision | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Supplement | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Supplier | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Suppliers | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Supplying | 9 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Support | 7 | 6 | 6 | 8 | 6 | 10 | 8 | 44 |
| Supported | 9 | 2 | 0 | 1 | 4 | 1 | 1 | 9 |
| Supporting | 10 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Supportive | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Suppose | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Supposed | 8 | 0 | 1 | 5 | 1 | 1 | 0 | 8 |
| Supposedly | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Sure | 4 | 4 | 5 | 3 | 4 | 1 | 2 | 19 |
| Surprised | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Surrounded | 10 | 0 | 0 | 7 | 0 | 0 | 0 | 7 |
| Survey | 6 | 0 | 0 | 1 | 2 | 1 | 0 | 4 |
| Surveys | 7 | 0 | 0 | 0 | 1 | 3 | 0 | 4 |
| Survive | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Survived | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Suspected | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Sustain | 7 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| Sustainability | 14 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Suzan | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Sweets | 6 | 0 | 0 | 4 | 0 | 0 | 0 | 4 |
| Switched | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Syndrome | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Synthesis | 9 | 0 | 0 | 1 | 3 | 5 | 0 | 9 |
| Synthesize | 10 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| System | 6 | 10 | 5 | 16 | 21 | 11 | 18 | 81 |
| Systems | 7 | 2 | 2 | 3 | 7 | 2 | 5 | 21 |
| T.V | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Table | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Tabled | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Tactics | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Take | 4 | 6 | 14 | 18 | 17 | 15 | 12 | 82 |
| Taken | 5 | 2 | 0 | 5 | 1 | 1 | 0 | 9 |
| Taker | 5 | 0 | 0 | 3 | 2 | 1 | 1 | 7 |
| Takers | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Takes | 5 | 0 | 0 | 2 | 7 | 3 | 2 | 14 |
| Taking | 6 | 3 | 6 | 2 | 3 | 2 | 4 | 20 |

| | | | | | | | | |
|----------------------|----|----|----|----|----|----|----|-----|
| Talk | 4 | 4 | 4 | 3 | 9 | 2 | 3 | 25 |
| Talked | 6 | 0 | 2 | 3 | 6 | 4 | 0 | 15 |
| Talking | 7 | 8 | 9 | 13 | 10 | 12 | 7 | 59 |
| Tandem | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Tap | 3 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Tapping | 7 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Target | 6 | 1 | 2 | 2 | 1 | 0 | 0 | 6 |
| Targeted | 8 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Targeting | 9 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Targets | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Task | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Taught | 6 | 3 | 3 | 3 | 13 | 15 | 4 | 41 |
| Tax | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Taxes | 5 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| Taxify | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Teach | 5 | 2 | 0 | 0 | 26 | 3 | 12 | 43 |
| Teacher | 7 | 4 | 0 | 0 | 0 | 0 | 0 | 4 |
| Teachers | 8 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Teaching | 8 | 1 | 3 | 2 | 36 | 24 | 31 | 97 |
| Tears | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Technology | 10 | 0 | 1 | 1 | 4 | 0 | 0 | 6 |
| Tedious | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Teem | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Teenager | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Telephone | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Tell | 4 | 2 | 2 | 4 | 6 | 4 | 0 | 18 |
| Telling | 7 | 1 | 1 | 3 | 2 | 1 | 0 | 8 |
| Tells | 5 | 0 | 0 | 1 | 0 | 1 | 1 | 3 |
| Template | 8 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Ten | 3 | 0 | 0 | 1 | 2 | 0 | 2 | 5 |
| Tenacity | 8 | 0 | 0 | 0 | 0 | 5 | 0 | 5 |
| Tend | 4 | 1 | 3 | 3 | 0 | 2 | 0 | 9 |
| Tendencies | 10 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Tender | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Tends | 5 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Term | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Terminate | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Terminated | 10 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| Terminologies | 13 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Terms | 5 | 8 | 10 | 13 | 11 | 31 | 34 | 107 |
| Text | 4 | 0 | 0 | 1 | 0 | 2 | 3 | 6 |
| Thanking | 8 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| That's | 6 | 28 | 9 | 36 | 28 | 48 | 25 | 174 |
| Thats | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Theatre | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Thee | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Theie | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Theire | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |

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|---------------|----|------|------|------|------|------|------|-------|
| Theoretical | 11 | 0 | 0 | 1 | 1 | 1 | 1 | 4 |
| Theoretically | 13 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| There'll | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| There're | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| There's | 7 | 6 | 1 | 1 | 17 | 29 | 24 | 78 |
| Therefore | 9 | 0 | 0 | 2 | 1 | 6 | 3 | 12 |
| They'd | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| They'll | 7 | 1 | 0 | 0 | 2 | 2 | 0 | 5 |
| They're | 7 | 2 | 0 | 0 | 3 | 0 | 2 | 7 |
| They've | 7 | 0 | 0 | 2 | 4 | 4 | 4 | 14 |
| Thin | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Thing | 5 | 3 | 12 | 8 | 7 | 8 | 7 | 45 |
| Things | 6 | 14 | 13 | 31 | 22 | 34 | 45 | 159 |
| Third | 5 | 0 | 0 | 5 | 2 | 0 | 2 | 9 |
| Thirteen | 8 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Though | 6 | 3 | 5 | 5 | 6 | 3 | 7 | 29 |
| Thoughts | 8 | 5 | 0 | 3 | 4 | 0 | 1 | 13 |
| Thrive | 6 | 0 | 0 | 1 | 3 | 0 | 0 | 4 |
| Thriving | 8 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Throughout | 10 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Throw | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Thursday | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Tick | 4 | 0 | 0 | 0 | 0 | 3 | 3 | 6 |
| Ticked | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Ticking | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Tie | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Tied | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Tiktok | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Time | 4 | 2 | 7 | 37 | 45 | 33 | 31 | 155 |
| Times | 5 | 0 | 1 | 0 | 3 | 6 | 3 | 13 |
| Today | 5 | 1 | 0 | 1 | 1 | 3 | 0 | 6 |
| Today's | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Told | 4 | 1 | 3 | 1 | 4 | 3 | 0 | 12 |
| Tom | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Tomato | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Tomatoes | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Tone | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Tones | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Took | 4 | 0 | 1 | 1 | 1 | 6 | 1 | 10 |
| Tools | 5 | 2 | 1 | 0 | 0 | 0 | 4 | 7 |
| Tooth | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Top | 3 | 0 | 1 | 2 | 0 | 2 | 1 | 6 |
| Topic | 5 | 0 | 0 | 2 | 1 | 1 | 0 | 4 |
| Toss | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total | | 2962 | 3319 | 4692 | 5443 | 4644 | 4645 | 25705 |
| Totally | 7 | 1 | 0 | 0 | 1 | 0 | 1 | 3 |
| Touch | 5 | 0 | 0 | 3 | 0 | 0 | 2 | 5 |

| | | | | | | | | |
|-----------------------|----|---|---|---|----|----|----|----|
| Tourism | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Tournament | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Town | 4 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Track | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Tracking | 8 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Trade | 5 | 1 | 3 | 0 | 0 | 0 | 0 | 4 |
| Traditionally | 13 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Train | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Training | 8 | 0 | 0 | 0 | 4 | 3 | 0 | 7 |
| Trait | 5 | 0 | 0 | 0 | 3 | 1 | 1 | 5 |
| Traits | 6 | 0 | 0 | 0 | 5 | 0 | 0 | 5 |
| Transcends | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Transcribe | 10 | 0 | 0 | 0 | 1 | 1 | 0 | 2 |
| Transcribed | 11 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Transcribes | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Transcribing | 12 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Transcription | 13 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Transcription | 13 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Transcriptions | 14 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Transferrable | 13 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Transferred | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Transform | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Transition | 10 | 0 | 0 | 0 | 0 | 3 | 0 | 3 |
| Translate | 9 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Treasures | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Treating | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Tremendous | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Trend | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Triballistic | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Tribe | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Tricky | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Tried | 5 | 1 | 0 | 2 | 3 | 1 | 0 | 7 |
| Tries | 5 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Triggers | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Trouble | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| True | 4 | 0 | 2 | 5 | 3 | 1 | 0 | 11 |
| Truly | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Truth | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Try | 3 | 2 | 1 | 6 | 5 | 6 | 2 | 22 |
| Tryana | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Tryely | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Trying | 6 | 5 | 2 | 2 | 13 | 10 | 11 | 43 |
| Tryna | 5 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Tube | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Turn | 4 | 0 | 1 | 1 | 0 | 1 | 1 | 4 |
| Turned | 6 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Tute | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Twenty | 6 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |

| | | | | | | | | |
|----------------|----|----|----|-----|----|----|-----|-----|
| Twined | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Twitter | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Two's | 5 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Tye | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Tying | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Type | 4 | 1 | 0 | 0 | 0 | 0 | 2 | 3 |
| Types | 5 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| Typical | 7 | 0 | 0 | 1 | 0 | 1 | 1 | 3 |
| Typically | 9 | 0 | 0 | 0 | 3 | 2 | 0 | 5 |
| Typing | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Uber | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Ucu | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Ug | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Uganda | 6 | 0 | 6 | 5 | 27 | 0 | 0 | 38 |
| Uganda's | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Ugandan | 7 | 0 | 1 | 0 | 12 | 0 | 0 | 13 |
| Ugandans | 8 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Uh | 2 | 1 | 2 | 0 | 0 | 2 | 0 | 5 |
| Uhh | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Uhm | 3 | 88 | 23 | 0 | 47 | 98 | 100 | 356 |
| Ultimate | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Umbrella | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Unable | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Uncertainties | 13 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Unclear | 7 | 1 | 1 | 1 | 1 | 0 | 1 | 5 |
| Uncontrollably | 14 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Undergraduate | 13 | 0 | 0 | 0 | 1 | 2 | 1 | 4 |
| Underlying | 10 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Underneath | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Understand | 10 | 8 | 7 | 13 | 6 | 2 | 2 | 38 |
| Understanding | 13 | 10 | 3 | 5 | 7 | 3 | 6 | 34 |
| Understood | 10 | 0 | 2 | 3 | 0 | 0 | 0 | 5 |
| Undertake | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Undertakes | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Undertaking | 11 | 0 | 1 | 0 | 0 | 1 | 0 | 2 |
| Undeveloped | 11 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Unemployment | 12 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Unfortunate | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Unfortunately | 13 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| Uni | 3 | 2 | 0 | 0 | 0 | 0 | 1 | 3 |
| Unidentified | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Unintended | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Union | 5 | 2 | 0 | 0 | 0 | 3 | 0 | 5 |
| Unique | 6 | 0 | 0 | 0 | 8 | 0 | 0 | 8 |
| Unit | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Universities | 12 | 1 | 0 | 2 | 14 | 16 | 13 | 46 |
| University | 10 | 53 | 11 | 116 | 39 | 28 | 65 | 312 |
| University's | 12 | 0 | 0 | 1 | 5 | 4 | 3 | 13 |

| | | | | | | | | |
|------------|----|---|---|---|---|----|----|----|
| Unlearn | 7 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Unless | 6 | 0 | 1 | 1 | 2 | 0 | 3 | 7 |
| Unluckily | 9 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Unmute | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Untapped | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Upcoming | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Updated | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Upon | 4 | 0 | 1 | 0 | 0 | 1 | 1 | 3 |
| Upper | 5 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Urban | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Urge | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Ursb | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Usage | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Use | 3 | 2 | 7 | 9 | 5 | 10 | 7 | 40 |
| Used | 4 | 1 | 4 | 3 | 0 | 0 | 2 | 10 |
| Useful | 6 | 0 | 0 | 1 | 0 | 2 | 0 | 3 |
| User | 4 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Usher | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Using | 5 | 1 | 3 | 3 | 4 | 4 | 11 | 26 |
| Usually | 7 | 0 | 0 | 0 | 2 | 0 | 1 | 3 |
| Utilise | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Vacation | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Valid | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Valuable | 8 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Value | 5 | 0 | 0 | 3 | 5 | 0 | 0 | 8 |
| Valued | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Variety | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Various | 7 | 0 | 0 | 7 | 2 | 1 | 0 | 10 |
| Vary | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Vast | 4 | 0 | 0 | 0 | 1 | 2 | 0 | 3 |
| Vcan | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Venture | 7 | 0 | 3 | 3 | 3 | 4 | 1 | 14 |
| Ventures | 8 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Versa | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Versatile | 9 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Verses | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Versus | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Via | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Viable | 6 | 0 | 1 | 0 | 2 | 0 | 0 | 3 |
| Vice | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Video | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| View | 4 | 1 | 4 | 4 | 4 | 14 | 3 | 30 |
| Views | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Village | 7 | 0 | 2 | 0 | 2 | 0 | 0 | 4 |
| Virtual | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Visibility | 10 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Vision | 6 | 3 | 3 | 0 | 0 | 4 | 2 | 12 |
| Visit | 5 | 0 | 0 | 0 | 1 | 0 | 2 | 3 |

| | | | | | | | | |
|--------------|----|----|----|----|----|----|----|----|
| Visited | 7 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Visiting | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Vital | 5 | 0 | 2 | 2 | 1 | 0 | 0 | 5 |
| Vivid | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Vocational | 10 | 0 | 0 | 0 | 3 | 0 | 0 | 3 |
| Volatile | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Volkswagen | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Voluntary | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Volunteering | 12 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Vouchers | 8 | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Wait | 4 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| Wake | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Walls | 5 | 0 | 0 | 2 | 1 | 0 | 0 | 3 |
| Wanna | 5 | 5 | 0 | 0 | 0 | 0 | 6 | 11 |
| Want | 4 | 9 | 14 | 32 | 16 | 6 | 10 | 87 |
| Wanted | 6 | 6 | 2 | 13 | 5 | 0 | 1 | 27 |
| Wanting | 7 | 2 | 0 | 0 | 0 | 2 | 0 | 4 |
| Wants | 5 | 0 | 3 | 8 | 2 | 3 | 0 | 16 |
| Wasn't | 6 | 3 | 0 | 1 | 0 | 1 | 0 | 5 |
| Waved | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Way | 3 | 6 | 18 | 18 | 20 | 12 | 12 | 86 |
| Ways | 4 | 1 | 2 | 0 | 2 | 0 | 0 | 5 |
| We'd | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| We'll | 5 | 0 | 1 | 0 | 1 | 0 | 2 | 4 |
| We're | 5 | 0 | 0 | 1 | 2 | 2 | 1 | 6 |
| We've | 5 | 3 | 2 | 0 | 3 | 10 | 7 | 25 |
| Weaknesses | 10 | 0 | 1 | 0 | 0 | 0 | 3 | 4 |
| Wealth | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Web | 3 | 0 | 1 | 0 | 2 | 0 | 0 | 3 |
| Website | 7 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Websites | 8 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Wednesday | 9 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Week | 4 | 3 | 0 | 3 | 3 | 3 | 0 | 12 |
| Weekend | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Weekends | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Weeks | 5 | 0 | 0 | 0 | 0 | 1 | 2 | 3 |
| Weigh | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Weighing | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Wekesa | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Welcome | 7 | 1 | 2 | 0 | 0 | 2 | 2 | 7 |
| Well | 4 | 12 | 3 | 15 | 10 | 13 | 23 | 76 |
| Weren't | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| West | 4 | 0 | 1 | 2 | 3 | 0 | 0 | 6 |
| Westerners | 10 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| What's | 6 | 5 | 2 | 18 | 1 | 13 | 6 | 45 |
| Whatsapp | 8 | 0 | 2 | 1 | 0 | 0 | 0 | 3 |
| Whenever | 8 | 0 | 2 | 2 | 1 | 0 | 1 | 6 |
| Whereas | 7 | 2 | 0 | 0 | 1 | 0 | 0 | 3 |

| | | | | | | | | |
|-----------|---|----|----|----|----|----|----|-----|
| Whereby | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Wherever | 8 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Whether | 7 | 6 | 2 | 6 | 11 | 12 | 7 | 44 |
| Whilst | 6 | 0 | 2 | 0 | 2 | 0 | 0 | 4 |
| White | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Who's | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Who've | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Whoever | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Whole | 5 | 1 | 1 | 1 | 7 | 0 | 5 | 15 |
| Whose | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Widens | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Will | 4 | 2 | 31 | 42 | 23 | 16 | 14 | 128 |
| Willing | 7 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| Window | 6 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| Wise | 4 | 0 | 1 | 0 | 1 | 0 | 0 | 2 |
| Wish | 4 | 0 | 5 | 1 | 0 | 0 | 0 | 6 |
| Wishes | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Within | 6 | 2 | 5 | 7 | 5 | 5 | 10 | 34 |
| Without | 7 | 1 | 12 | 1 | 12 | 4 | 6 | 36 |
| Witnessed | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Woken | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Woman | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Women | 5 | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Won't | 5 | 0 | 3 | 1 | 1 | 0 | 2 | 7 |
| Wonder | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Wonderful | 9 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Wood | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| Word | 4 | 1 | 1 | 1 | 0 | 7 | 0 | 10 |
| Work | 4 | 11 | 11 | 6 | 6 | 14 | 24 | 72 |
| Worked | 6 | 1 | 0 | 0 | 1 | 5 | 6 | 13 |
| Working | 7 | 3 | 4 | 0 | 0 | 3 | 15 | 25 |
| Works | 5 | 0 | 0 | 0 | 0 | 0 | 8 | 8 |
| Workshops | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| World | 5 | 5 | 13 | 22 | 2 | 1 | 2 | 45 |
| Worlds | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Worry | 5 | 2 | 2 | 0 | 0 | 0 | 0 | 4 |
| Worrying | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Worse | 5 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| Worst | 5 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Worthy | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Wouldn't | 8 | 2 | 0 | 3 | 1 | 3 | 0 | 9 |
| Wow | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Wrap | 4 | 1 | 0 | 4 | 0 | 0 | 0 | 5 |
| Write | 5 | 0 | 0 | 2 | 2 | 0 | 2 | 6 |
| Writing | 7 | 0 | 0 | 1 | 2 | 0 | 1 | 4 |
| Written | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Wrong | 5 | 1 | 1 | 3 | 1 | 3 | 2 | 11 |
| Yeah | 4 | 27 | 28 | 3 | 45 | 54 | 35 | 192 |

| | | | | | | | | |
|-------------------|----|--------------|--------------|--------------|---------------|--------------|--------------|---------------|
| Year | 4 | 13 | 21 | 0 | 12 | 2 | 7 | 55 |
| Year's | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Years | 5 | 4 | 1 | 0 | 20 | 7 | 10 | 42 |
| Yellow | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Yep | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Yes | 3 | 19 | 37 | 31 | 46 | 49 | 37 | 219 |
| Yet | 3 | 0 | 4 | 1 | 7 | 1 | 2 | 15 |
| Yoh | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| You'd | 5 | 7 | 0 | 0 | 1 | 1 | 1 | 10 |
| You'll | 6 | 1 | 4 | 0 | 4 | 1 | 0 | 10 |
| You're | 6 | 23 | 14 | 8 | 29 | 14 | 13 | 101 |
| You've | 6 | 13 | 2 | 1 | 8 | 5 | 4 | 33 |
| Young | 5 | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Younger | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Youth | 5 | 3 | 0 | 0 | 2 | 0 | 0 | 5 |
| Youths | 6 | 0 | 0 | 0 | 2 | 0 | 0 | 2 |
| Youtube | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Zero | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Zuckerberg | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Total | | 5,799 | 6,634 | 9,377 | 10,775 | 9,025 | 9,096 | 50,706 |

9.17.3 VERBATIM INTERVIEW SCRIPTS

A. BCU STUDENTS INTERVIEW SCRIPTS - VERBATIM

Interviewer: Dennis Aguma

List of Acronyms: S1-student number one, S2-student number two, S3-student number three, S4-student number four, S5 Student Number 5; xxx-unclear.

BEGIN [0:00:01]

Dennis: Okay Good afternoon. It is twelve past three, ah it's Dennis Aguma doing the Focus group at ah Birmingham City University, because of corona virus we have not been able to have two other students that would have been in the focus group so there's only five individuals. Student five will join us shortly. Uhm, so you signed the participant consent form I have also given you the information sheet form which has all the information that you need regarding the research, what the research is about uhm obviously uhm this interview session is voluntary and you can stop it at any time ah so if you feel uncomfortable we can stop at any time also from an ethics perspective I am obliged to inform you that whatever you say is going to be held in the strictest of confidence because of data protection so I won't be highlighting you by name or anything that I use will not lead to you being identified in person so feel free to give me as much honesty as you can in fact because of that I am going to call you student number one, students number two, student number three, student number four, so when you're responding to a question when I ask you if you could please confirm that you are student number one and then respond uhm I'm hoping that we'll take no longer than an hour because I'm mindful that you have to leave ah so try and make it quicker.

So uhm student number one if you could please confirm your gender age, ethnic orientation, and maybe what course you study which year you are studying that.

[0:01:59]

S1: I am a second-year university student at BCU Birmingham City University studying Business Management ah professional practice I am 20 years of age and I am a male.

[0:02:08]

Dennis: Student number two, same question.

[0:02:10]

S2: I am a female studying Business Management I'm in my second year.

[0:02:22]

Dennis: Yeah, that said I think... ethnic orientation?

S2: uhm mixed black xxx

Dennis: Okay mixed raceah yeah black. Okay ah student number three

[0:02:36]

S3: I'm a 20 year old male, second year of study, BCU university studying Business and Management in practice looking to going to placement year next year

[0:02:49]

Dennis: Good, student number four.

[0:02:51]

S4: Ah it's my second year of study I do Business and Management and I am 21 years old

[0:02:58]

Dennis: Yes uhm and ah what's your ethnic ah background. Are you Chinese, Indian?

S4: I am a Chinese

[0:03:08]

Dennis: Okay good, you'll forgive me. I am never good at telling the difference between Japanese Chinese Asians generally so that's why I had to ask.

Uhm so Question number one I gave a paper I think this one which has a number of entrepreneurial skills okay, do you recognise those as entrepreneurial skills? Have you had a chance to read them? So student number one do you recognise those as entrepreneurial skills and what are your thoughts on them if you could just run through them.

[0:03:49]

S1: Uhm ah okay so first of all from what I can see ah I do actually believe they are entrepreneurship skills and I believe as an entrepreneur you definitely need to have a lot of these skills especially opportunity recognition, creativity and innovation you definitely need to be having that ah to an ah a successful entrepreneur. Uhm decision making supported by critical analysis is also ah a very strong part I believe that you need to take it into consideration and also I like a lot of implementation of ideas for leadership and management as a university student studying Business Management if I wanted to go into the entrepreneurial world then I believe that is one of the strongest skills you have to have to be successful.

[0:04:31]

Dennis: Good, good ah student number two same question.

[0:04:35]

S2: Ah I recognise them as skills an entrepreneur would need, uhm some people xxx a lot of skills xxx leadership and reflection uhm they are not necessarily too academic ah and you see this xxx quality in people who have been successful throughout their entrepreneurship.

[0:04:57]

Dennis: Good uhm student number three.

[0:05:00]

S3: Uhm just picking up on what student number two said about we've seen like successful people have possessed uhm these characteristics we've seen Bill gates the xxx and all of the other entrepreneurs I feel like these characteristics they have these qualities and that's what makes them like the best xxx and I highlighted creativity and innovation like from my personal like perspective and why an entrepreneur xxx I feel like these qualities are all very important because you have to stand out and solve a problem and to do that you have to be creative and know how to like think so I feel like this is really good these are really good xxx.

[0:05:41]

Dennis: Okay, Student number four same question.

[0:05:43]

S4: Ah I hear a lot of xxx that an entrepreneur needs to have in my own opinion I think we need to exercise in the working environment to achieve this xxx ah not to just have it , that's it.

[0:06:06]

Dennis: Okay that's an interesting take as well, uhm so of all the skills which of these do you think are most important?

[0:06:15]

S1: Uhm as I'm student number one, ah I actually didn't xxx were talking about this but uhm communication and strategy skills ah digital and data skills I believe that's quite important because you've gotta strategize how you'll get into the market and why you should go to the market uhm I also think action and reflection that's uhm very, very important one because you have to reflect on every single move you make as an entrepreneur.

[0:06:44]

Dennis: Hmm okay, student number two same question which of these do you think are most important may be two or three?

[0:06:52]

S2: Ah creation and evaluation xxx some of the tools reflection of entrepreneurs tend to be great ah creativity and like noble idea to go ahead but when it comes to the xx they're being challenged uhm that often when they struggle because they xxx the idea is the best I was going to be rather they'll need evaluation to make sure that they are not just xxx have clouded judgment ah so with that action and reflection are also important.

[0:07:24]

Dennis: Cool, student number three I think you did mention that ah but carry on

[0:07:29]

S3: Just to pick up on where the xxx creative innovation I feel like that's a really good one but uhm to be very, very precise I think action and reflection at the end of the day because everyone has an idea and everyone has like this plan in their head but like how many people actually go out there and actually do this or xx on your fear and actually say oh I'm going to start this business xx or lemme take this risk and again the reflection part is really good so you can go back and say oh I can do this but or yeah I can change this xxx i feel like the xxx makes people get to where they wanna be entrepreneur so yeah that's it.

[0:08:08]

Dennis: Okay, and ah student number four, which of those do you think are most important?

[0:08:13]

S4: xx I'd say that ah digital and data skills xx companies ah employees need to think about xxx compares this from your company xx ah second part ah maybe xxx because there were a big part ah a big amount of employees in one company in so it's difficult to manage ..

[0:08:49]

Dennis: Uhm of the questions of the skills I've given you do you think that there are some other skills missing from that list that you'd have expected to see? Uhm student number one

[0:09:00]

S1: Uhm so I'm student number one, so from what ah from what I've seen from an entrepreneurial point of view as xxx studying as a module ah I believe looking through the list ah I think there's ah I have ticked all the boxes in terms of being a successful entrepreneur but when I look at xxx well I think as student number three said about risk taking I think I'm not entirely sure what the professional where it is to use but I think uhm an element of risking strategy well we can say risking strategy at communication and strategy I'd say there's got to be some factors of risk taking there as you mentioned I'm saying everyone has the ideas but xx do you wake when you wake up in the morning and say I'm gonna go for it so I think some elements of risk factors analyzing risk and risk potential and what can make you successful entrepreneur I do believe that's it I only had one missing within this left hand box

[0:09:56]

Dennis: Okay student number two same question.

[0:09:59]

S2: Ah you've ah this communication and ah I think that's broken down every xxx uhm you need other inter personal skills as networking as well and of that can xxx communication and ah its quite different it's something you need at the start to usher your journey into xx as an entrepreneur.

[0:10:23]

Dennis: Good observation, ah student number three

[0:10:26]

S3: Yeah uhm just like student number one said you've pretty much like covered everything I wanted to say you know, the element of like taking risks and you know just going out and actually doing carrying out your idea yeah that ah I feel like that needs to be number one thing people need to know about entrepreneurship by actually carrying out the idea (the action) yes the action so it's xxx

Dennis: There's ah one of those action and reflection but I think that take a point uhm understanding the risk and the ability to make the move is the key point that you're trying to drive home.

S3: Yeah

[0:11:08]

Dennis: Student number four same question.

[0:11:10]

S4: Student number four ...

Dennis: which skill do you think is missing from the list?

S4: xxx I think is enough and I could give uh it's about finance knowledge

Dennis: Finance knowledge

S4: entrepreneur should have.

Dennis: Okay, that's an interesting one, what do you mean by finance knowledge? Do you mean the ah like

S4: The stock

Dennis: Stocks like ah bookkeeping debit credits, ah banks and that kind of stuff, understanding money basically?

S4: Yes

[0:11:48]

Dennis: Okay, so next ah section is the stuff on the right so there are a number of ways in which people learn okay, so the first one is curricular, this is the stuff that we do in class okay? ,so like the module that you're learning at the moment on entrepreneurship you're being taught how to be entrepreneurial you're given ah particular tools like business model canvases and things like that and at the end of it all you're expected to apply those and demonstrate that you've acquired those skills by passing an exam so that's what happens in class that's curricular.

On the opposite side of that is extra-curricular, stuff that happens like this whole week you've been having graduate class things that have nothing to do with your grades but they are happening

outside of class and sometimes even the university is not involved may be the students' union is involved ah so that's extra-curricular so there are those things that happen outside the class that might give you the skills that we are talking about that's extra-curricular.

There's something in the middle which is co-curricular, so it's not extra-curricular it's not curricular so like when we have a guest in class like Ali who has been at Birmingham City University this year a business man explaining what his business idea is and challenging it xxx work with solutions and or if Richard Branson came to give you a speech, to give the hole university a speech may be on your graduation and you pick some ideas and thoughts around entrepreneurship, that's co-curricular it might you know impact on your exams but it's not necessarily curricular it's not like someone is teaching you that $1+1=2$ so there's that bit in the middle.

So all those three methods which one do you think is most effective in helping you as a student to acquire these entrepreneurship skills xxx student number one, which of those three do you think is most effective?

[0:13:53]

S1: Uhm so if you don't mind ah as you've said my curriculum understanding is I think that xxx is kinda xx with my learning so I think as Dennis you are a teacher of mine and you are a fantastic teacher I'll be honest with you uhm you very uhm I was not very interested in entrepreneurship as so but since joining your class I think you've given me the kind of body to understand and to give me the opportunity for my extra-curricular learning to come involved. Though I also believe I do believe personally I'm a practical base learner and having ah Mr. Ali come in himself saw your class as co-curricular and also maybe slightly the most important for me personally because I think he's lived it he's had it he's actually done it so I think the co-curricular gives me the opportunity to xxx actually make me extra-curricular as well as making my curricular understanding better.

[0:14:51]

Dennis: So if I understand this correctly, you are saying that whatever happened in class has made you aware and more engaged in extra-curricular stuff around entrepreneurship?

S1: One hundred percent

Dennis: Meaning if you hadn't enjoyed what was happening in curricular the chances are you wouldn't have been engaged in extra-curricular activities that could have given you the skills that we are talking about?

S1: Yeah, I'd be exactly as I said before curricular gives me the understanding but it also gives me the opportunity and it makes me feel better about myself to put that extra into practice so without curricular I would not have skills.

[0:15:31]

Dennis: Just to clarify, the extra-curricular is a method of education just a method in which you learn

S1: So is that being self-taught

Dennis: Being self-taught uhm attending events like ah students' union events I mean like communication if you're a member of the debating society or if you're a member of the ah what society are you a member of?

S1: Ah I'm not really any member

Dennis: Are you a member of any society student number two?

S2: No

Dennis: Okay, so if you attended any students' societies activities that happen there you could learn one or two things. So if (thank goodness that I'm a good lecturer) but if I wasn't a good lecturer and you have to study entrepreneurship in class, if you had an option of curricular; that is attending class, extra-curricular; learning outside of class whether it is at your home, ah in your church uhm in the students' society or co-curricular like the Ali showing up in class. Which of those three do you think is most effective if you had to pick one in terms of giving you these skills for entrepreneurship which one would you choose?

[0:16:38]

S1: Co-curricular, student number one co-curricular

Dennis: Yes and ... why is that?

S1: Because people like you mentioned Richard Branson and actually meeting Ali and speaking to him he's given me the his opinion he's made me believe in the business world so I'd go for co-curricular.

[0:16:58]

Dennis: Okay student number two same question

[0:17:01]

S2: I think as extra-curricular only because uhm because it is non-academic and it'd be less xxx getting on this xxx so in terms of creativity uhm people might say that they are not naturally creative person and you don't get to express that in ..

Dennis: in a curricular

S2: xxx very often whereas extra-curricular you'd be developing those skills even if you're not aware of you doing that uhm which makes more so uhm organic and uhm the learning involved in that is a lot more of experience based and practical.

[0:17:45]

Dennis: Yeah, student number three same question.

[0:17:48]

S3: I feel like my opinion is just a bit

Dennis: It's okay it is just opening that's why we are doing a focus group.

[0:17:55]

S3: Uhm I'm a bit of both to be fair x I was way I was uhm the way I learn is more like ah curricular person like going to uni and knowing stuff sort of like keeps me grounded so I like wanting to know more whereas if I'm in extra-curricular ah table seven hmm yeah xxx or a common background and for curricular the more you xx aware of xxx I missed a week oh I must catch it back, xxx I feel I learn more that way xx makes sense. Oh yeah I'm also extra-curricular we might ah just cut that off because I feel like I feel like university students here were absent I feel like most of them have something they wanna do but like the university hasn't like really provided them the option xxx to showcase business skills like in xxx like I realized the examples xxx gave to us about early communion to talk about his business like we have the idea xxx actually know how the business operates like some one that has like uhm someone in the same xxx might be interested and is like oh I wanna know more or how do I actually know more about xxx and I feel like the extra-curricular part is meant to like you know help that student xxx student's done a business or xxx literally I literally don't know how to like how I'm gonna start my business but ever since I met Ali and like the information that he's given to us has like helped me as well, so yes.

[0:19:36]

Dennis: So it's the idea of putting theory into practice

S3: Theory into practice yeah

Dennis: Uhm that gives you that

S3: Yes

Dennis: So it's not necessarily being in class even though you'd rather be in class?

S3: Yeah

Dennis: Okay, but when you're outside of the class and you don't relate with the academic content so maybe you struggle to apply the ah identify where the skills have been gained so being in the middle gives you

S3: Yeah it gives you a bit of xxx

[0:20:02]

Dennis: Okay, student number four same question, of those three methods given; curricular, extra-curricular and co-curricular, which one helps you to acquire the entrepreneurship skills most?

[0:20:13]

S4: It's not the curricular because it's more like some xxx in the in the xxx university and ah teachers xx must ah follow the book to teach the students and uhm more like I do more like I said extra-

curricular because it's out of the book and ah you need to use almost your brain to imagine some knowledge its ah it's more like xxx by the book yeah, yeah that's it.

[0:20:55]

Dennis: So because it is not serious stuff you find it easy to engage with concepts outside of class as opposed to being in class?

S4: yes

[0:21:07]

Dennis: Uhm next question so I gave you this graph let's put it here which so basically some of part of this research is exploring the extent to which what happens outside of the university right? Outside of the university environment impacts on ah the extent to which you're entrepreneurial.

So these skills that I showed you earlier, the creativity, the opportunity recognition communication, digital and data skills and all that kind of stuff, to what extent do these things that happen in your eco-system to what extent do these impact you on being entrepreneurial.

Just explain to what they are you have things like government policy, ah you have things like ah financial capital so you might be wanting to start a business or maybe there was some money available when you were at school, secondary schools and you played along that money and came up with product or service ah success stories or culture is there anyone in a family that for instance has done some business and survived it doesn't need to have been Richard Branson but you know in your culture or are they all academic and they don't really focus much on business, uhm support systems do you have support systems in your community like a church or business groups or societies that where either you or your father your mother your brother whoever are involved so that you get to learn some of these entrepreneurial skills.

Human capital which includes ah things like the university environment, the school in which you are based ah or networks you know like ah your community networks like for you who is an international student do you have like Chinese networks where students might be importing things and exporting them or ah the environment in which you are. So this is a general picture of that entrepreneurial eco-system the environment in which you grow up before you come to university.

So my question then is, to what extent do you think all of these collectively to what extent do you think they impact you being entrepreneurial having those entrepreneurial skills before you come to university, so before you came to university if you think of those entrepreneurial skills to what extent do you think all these stuff that was happening in the environment contributed to you having those skills?

[0:23:55]

S1: I'm student number one. Uhm I'll be honest to you I understand the question but uhm I believe my well my father he is a builder by trade xxx he left xxx to join us so he's always been a part of wood work and ah he's got his own business he built quite a lot of houses xxx done extensions of wood work and so I've always been as I said previously, I'm a practical base learner so I've always been in the environment of working on my dad's building sites so that's what later brings xxx when I can work with him xxx and I have seen his innovations on how he is creative xxx house so xxx asked for your help to answer the question on this one, uhm what would you say of my father xxx that would be human capital or is that culture I can't call it support xxx

Dennis: I think xx you're answering what my next question was because the next question is going to be of these which one do you think is the most important

S1: I see ...

Dennis: But generally speaking from what you're saying that eco-system that environment in which you've grown up is responsible for any entrepreneurial skills that you might have having grown with your father looking at what he is doing yes.

[0:25:03]

S1: That is I do think if culture xx we are in xx 2020 now, and I believe with culture you've got to put social media into that I feel like uhm I feel like as in culture social media uhm I'm a type of a person where I try to put my trend of who I follow on instagram around uhm successful people successful websites trying to give you the motivation and I think it's when you can see quiet clearly on your mobile phone that there is somebody who is absolutely xx in 1962 they turned 975000 pounds but now in 2020 they do that in a minute.

So it's kind of seeing how a company started so small, and how it's growing to be xx industry now.

[0:25:51]

Dennis: So the point you're trying to say is that this eco-system it might there might be a physical aspect of the eco-system but what you're suggesting is that there's a virtual one which is online and it's probably much bigger than any of these other locally based ones

S1: Yes I think xx as you said is much bigger uhm everything is on our door step if you'd like to say the saying everything is on my mobile phone so if I don't have an answer I can find out as well as my social media I've tried xxx to the business world how I want to be a professional business man myself I feel culture is also a very good one yes.

[0:26:25]

Dennis: Okay, same question ah may be now that ah student number one has answered both collective and the individual maybe you could do the same, so collectively generally do you think this eco-system of this environment has been responsible for any skill that you might have regarding

being entrepreneurial and if you could go further and elaborate on which one do you think has been most effective.

[0:26:46]

S2: Uhm so I do think that this environment uhm here has contributed to building some of these skills for example ah creativity for me was built in uhm youth clubs that I attended when I was younger which was supported by institutes and ah over local businesses uhm and through those other opportunities that I've had through the environment uhm I was able to gain school scholarships and leadership and uhm critical analysis when I was in school xxx as well. And yeah having these influences around you, you can see as well and often xxx influence is what you want to do in the future it is like for example role models and so yes.

so in my opinion culture would be the biggest sort of influencer for me personally so because as I said ah my local community had youth clubs and opportunities for me to do that and it's part of the reason why I want to become a leader and then move into the idea of doing business management as a course uhm

[0:28:05]

Dennis: Is it culture though or is it the support system?

S2: Ah yes support

[0:28:11]

Dennis: Yes, because with the culture I mean like me who is African uhm I would be looking at my African heritage as a cultural influence ah student number one uhm who is Asian born and raised here you'd be looking at a different culture influence ah but what you're suggesting is that it's not necessarily culture per say but it's ah the support system with in ah the environment that you grew up right just to clarify. Okay, student number three same question.

[0:28:43]

S3: Ah sorry I ah I still have like a problem I'm trying to understand the question

Dennis: Not a problem, how do you understand it?

S3: Ah from ah I am thinking that uhm what part of that entrepreneurship ecosystem actually influences these qualities that make up a very good entrepreneur, is that ah the question?

Dennis: Yes

S3: Okay uhm

Dennis: From your experience do you think that ecosystem the environment in which you grew up, where did you grow up?

S3: I grew up in Lagos

Dennis: Okay, Lagos Nigeria, so uhm so how long have you been living here in the UK?

S3: uhm 8-9 years

Dennis: Okay, so of either of those two environments ah generally speaking have they influenced you to the extent to which you might or might have not those entrepreneurship skills that's question number one,

S3: xxx around uhm

Dennis: So that's question number one, question number two of those aspects which one do you think has been most influential in you getting those skills? So question number one first generally.

S3: Uhm generally I think culture, culture because every entrepreneur like their mindset is based on how they grew up and where they grew up around, so depending on like the society because most of these like very big entrepreneurs like most of their families were literally like business men and like you know like in the business, business world or the other stuff but yeah I feel like it's more of like we grow around where you were literally like she said ah student number two said something about youth clubs and all that other stuff so some people grow up around different things and that literally influencing them to choose a side choose business or choose something else.

But for me I just wanna like go deep into so looking at societal norms towards risk mistake to xxx that's like and ambition driver and hunger I feel like those societal norms literally makes who you are like in terms of like entrepreneur because some people like they tryana like make a point because most people most people go xxx probably grew up or they saw they witnessed their dad do something to their mom and like this stuff literally messes up their way of mind and like people see that and they actually never want that to happen again so they pick up stuff they pick up on stuff because they are gifted in maths or they are good at selling stuff and that's how these people actually grow up to be people they are today. So it's more of like a mindset thing so it's more about light the ambition the drive the hunger I feel like that's a very, very key xxx

[0:31:35]

Dennis: Okay, I think the key word you were using is pick up on stuff, xxx btw this is a focus group so you're welcome to chip in or disagree with any one.

Ah student number four same questions ah the environment in which you grew up, do you think it affected or didn't affect the extent of which you have or don't have any of those skills entrepreneurship skills.

[0:31:59]

S4: It's ah it's ah I am confused

Dennis: You're confused? Okay so those entrepreneurship skills do you think you have any of those skills?

S4: For now I have a little

Dennis: which ones?

S4: Creation and evaluation

Dennis: Okay so the creativity and evaluation, the creativity that you're talking about the environment in which you grew up back at home, do you think it is responsible for you having those skills being creative or are you genetically naturally born creative or do you think it's the environment in which you grew up?

S4: xxx

[0:32:51]

Dennis: Don't worry if you can't answer the question you don't have to. Okay it's okay but now the next question was that before you came to university right? And by the way feel free to discuss this amongst yourselves.

Now that you are at university especially now that you are in your second year, do you still have the same do you still think that these external factors assuming the university is now in the middle of the this Birmingham eco-system, do you think that these external factors are still influencing you in terms of acquiring those entrepreneurship skills or it is something else at play do you still think that now that those clubs are there has something else taken their place ah what's happening, is this eco-system still impacting you is this environment still impacting the extent to which you acquire these skills now that you are at the university student number one?

[0:33:40]

S1: Okay student number one. Ah as I've said ah I've always been a practical based learner university wasn't actually a decision I wanted to pursue but it was more of the opportunity I could maybe potentially get from it, uhm as I've always said I'm very close to my father and that's never changed since we've been to university it's kind of made me more strong-minded xxx my power has become better but I think university has now given me the confidence and understanding to actually put my foot through the door and to ah proceed ah to make these ah to make this criteria of skills that I feel university hasn't changed me as a person but it's made me more adoptable and more confident.

[0:34:43]

Dennis: So what you're saying is that what's happening in the university right now has a more significant influence on you acquiring those skills than what's happening in the wider environmental

[0:34:56]

S1: Personally yes for me because obviously I'm at the university for three years so I'm studying constantly don't get me wrong we all want to be making money and have money in our back pocket, but I do agree with what you've just said that is if I'm making my vision I should be its making portray vision and my understanding so I'm learning from all the modules I've learnt xxx I will

be learning my skills are coming through I've always been a skillful person in terms of my mind set but I do agree university is pushing me through that door ever since xxx

[0:35:29]

Dennis: Okay, slightly much more than the environment is at the moment

S1: As I mentioned my father and the father figure I have

Dennis: Obviously that hasn't changed

S1: that has not changed but now I can reflect more to him and his operations he carries out and opportunities so yes university is making me more adequate into the business environment.

[0:35:49]

Dennis: Cool student number two

[0:35:50]

S2: I x like student number one said I the university sort of brings all these external things into the internal environment uhm because of the services they provide and also the people that the businesses that they have into the university as well ah and they are so xxx now university has made me understand that I need this entrepreneurial skills to be not just an entrepreneur but also to be manager or be successful in anything to be honest uhm and now that I understand

Dennis: And that acknowledgement that understanding of these skills does that make you make more of an effort to try and seek them all as compared to what you would have done or you are aware of that?

S2: Yeah definitely.

Dennis: Were you have you been made aware of them because of this research or have you in the process or Uni from first year to second year have you have they been at the back of your mind since you came to university now?

S2: Uhm since I've really, really been starting to apply for ah placements its these or sort of goals that keep coming and also from my module as well yeah.

[0:37:06]

S1: May I talk?

Dennis: Yeah

[0:37:09]

S1: Student number one uhm I just want to actually carry on from what student number two said I completely agree completely, uhm I'll be honest with you I always had an entrepreneurial mindset I have used xxx xx website xx trying this for a profit ah had to sell ah limited clothes, I've always had that understanding of yes this is how you make a profit this is how you worry about your finances

about creativity, innovation but I'll agree with student number two that university is kind of making you more professional that's what I just wanted to xxx thank you.

[0:37:44]

Dennis: Okay, student number three

[0:37:47]

S3: Yeah xxx must have covered ah all university is xxx literally pushed you through that door and if you like just give your older information you just need to pretty much discover what you'd like to do so looking at entrepreneurship and everything you know xxx provider of xxx I'm talking about university uhm before I came to university I wasn't like uhm I wouldn't say confident about like a was a bit reserved so I feel like university really like opened that door for me to like why are you scared xxx is not gonna bite you, is not gonna bite you why are you afraid of like presenting and everything else entrepreneur, talking about what student number two said about the uhm applying for placements and these xxx they are asking for university xxx helped me to you know acquire those and actually doing better xx so right now every time I do a presentation I don't need to be scared oh they are gonna laugh or oh you don't know what you're saying or like I can literally just all free I'm not scared I do this so I think that is really, really important confidence is really key so I feel like

Dennis Okay, and what's happening at the university is helping you to

S3: it has literally helped me, I work from like ah 20% to like 95% yeah so it's really good yes

[0:39:18]

Dennis: Good, student number four uhm same question

[0:39:23]

S4: Ah when I started in my ah in high school in my home town my teacher always told me about the we are the foundational knowledge like the one password and they were xxx university xxx teacher that teach me not to have knowledge that I haven't seen before so I started to know what I should do in the future become an entrepreneur xxx and that's the target for me to become a business man also the BCU also give me ah give us ah chance to study in the gradual past week that also give some opportunity

[0:40:19]

Dennis: Okay It's a very interesting part of what you've just said around ah graduate class because most people think that what happens at the university is curricular et there are other things that the graduate class we should give you those xxx skills okay.

So uhm I have had to summarize this one because I'm mindful that you have to leave ah we promised to do this in an hour and we are seven minutes away so we are just going to wrap up.

Uhm is there anything else that you want to add or xxx the questions I have been asking you. I have been asking you questions around three things one; entrepreneurship skills whether you understand them whether you think you have them whether your acquisition of them has happened before university whether that is happening at the university so just in summery what are your thoughts around that?

[0:41:12]

S1: Uhm so student number one uhm I think Dennis you've made it very clear of your research in your understanding and I'm not sure if I'm correct when I say this but I think uhm my opinion of it all is uhm that people like Mr. Ali like you mentioned earlier before I think as a university to get the best out of every single ah individual especially within the business mindset or do you study even the business school I think getting a slightly more co-curricular people in to give uhm it gives the opportunity to make your skills more professional xxx

[0:41:52]

Dennis: Yeah

S1: I'm not sure how xxx

Dennis: no its fine, I just wanted to pick your random thoughts the key thing that has come from me asking you these questions as far as you're concerned is that uhm university is probably more effective in giving you these skills compared to what was happening outside the university and once you're at that the co-curricular is the most effective xxx.

Student number two.

[0:42:18]

S2: Uhm from the so far what I've taken away is that everything needs to work together rather than xxx because like you had to mix like xxx may be the curricular working with the co-curricular will work with extra-curricular would make it the most effective way to build skills and become better entrepreneurs.

[0:42:42]

Dennis: yes student number one

[0:42:43]

S1: Ah yeah I just want to pick up on ah student number two's thoughts uhm I just want to say actually that uhm obviously this is a video recorded so obviously you can't see the individuals so but we all do we are all xxx from audio xx we are all from very different backgrounds we all have different xxx we all have different heritage we all have different everything but it's actually really refreshing to see how to we all work as you said we should all work together and not individually I think it's about how the entrepreneurial vision of the university how it brings everyone together no

matter what you are, no judgments or anything of sorts so I think if everyone worked together I think everyone could be more professional with in the business world thank you.

[0:43:29]

Dennis: Just to supplement on that ah one of the key points that you have made is that none of these is more important than the other so these all things work in a xxx ah together and sometimes it's hard to pin point which is, so when I was pushing you I just wanted to see whether you can put yourselves in one or two boxes then you discover that some people xxx think that they're in this box ah if we had more time you would find yourself in this box because like human capital where we have schools, ah universities and the after school clubs we were talking about they might be here or they might be here or you know, so they all work together. So student number three

[0:44:12]

S3: Uhm just to pick on where you xxx what you said was actually correct I feel like every single entrepreneurship xxx no one is more important than the other and just to and just to talk about the curricular stuff I feel like everyone else like everyone needs like a push so the university should focus on that xx actually help these people you know just having like ah a group of people come together and actually like talking because co-curricular lot's of my friends and they have extremely great ideas xxx so people this year and like they tell me the idea like oh do you know how I do this and immediately asking them literally and we spoke about how university isn't like really helping with them in terms of pushing them xx so I feel like they should focus on you know, how do I say this pushing everyone's cross more like xx like have like workshops I don't know just different openings

[0:45:23]

S2: xx given people skills xx for themselves how they can xxx

[0:45:29]

S3: Yeah because like I said for everyone has the idea but actually pushing is the problem you get up and do it and I feel like they need these resources they need someone to talk to they need someone to say take this xxx like no one has.....

[0:45:45]

Dennis: So to pick up on your point then, uhm which is contrary to what student number one was saying is that because these students are still exposed to the external factors the environmental factors outside of the university and they are not finding help from those environmental factors in terms of the skills needed to take these products and you'd have expected that the university then would have stepped in and kind of ah plug the gap with those needed to so what you're saying is that the university is not being as effective?

[0:46:20]

S3: Yeah as it should.

Dennis: Or at least it hasn't been significant difference between what was happening outside and since they came to university so they are two sides now, okay student number four. Generally what do you think of this research ah what are your key points ah what would you tell me is the most important stuff that you've picked from this as your concern

[0:46:43]

S4: Uhm I wanna say that I totally agree with student number one and that was ah very good summary.

[0:46:52]

Dennis: Okay that's it, it brings an end to the our interview which is going to be terminated at exactly four o'clock thank you very much - thank you all.

END [0:47:07]

B. MUBS STUDENTS INTERVIEW – VERBATIM

Interviewer: Dennis Aguma

Location of interview: Makerere University Business School

Interviewee: Students 1, 2, 3, 4, 5 and 6

List of Acronyms: S1-student number one, S2-student number two, S3-student number three, S4-student number four, S5-student number five, S6- student number six, xxx- unclear.

BEGIN [0:00:01]

Dennis: Time check is 12:20 East African Time, interview number one for MUBS' students. So my name is Dennis, Dennis Aguma I'm a PhD student at ah Birmingham City University in the UK I'm doing a PhD which is exploring ah the impact of entrepreneurship eco-systems on the choice and effectiveness of different methods of entrepreneurship education. Uhm I have ah received ah uhm authority from Professor Ernest Abaho to do the study here, I also have a clearance from an ethics perspective from Birmingham City University to do this research here. Everything you say is confidential whilst its being recorded it will be transcribed and your names will be anonymised so you don't have to ah worry that whatever you say is going to be used against you no, everything is going to be anonymised. Ah that lady over there is called Shawna, Shawna is my research assistant she will be taking some notes so don't worry about her it's not an exam, uhm and because this whole thing is anonymised I want you to be as free and relaxed as you possibly can be.

I'm going to give you ah different ah numbers so that ah for purposes of ah anonymity. So you are going to be uhm student number one, you're going to be student number two, you're going to be student number three, student number four, student number five. And when you're going to give an answer, start with student number one, then student number two so you will say student number one this is what I think, yeah? So uhm number one, two, three, four, number five.

Uhm so what I want you to do is to start by telling me what your name is what course you're doing, which year of study, student number one.

[0:02:15]

S1: Student number one, my name is XXX; I'm doing Bachelors of Entrepreneurship and Small Business Management year three.

[0:02:28]

S2: Student number two, my name is XXX, I'm doing Bachelors of Entrepreneurship and Small Business Management, year one.

[0:02:38]

Dennis: Okay

[0:02:39]

S3: Student number three, I'm XXX doing Entrepreneurship and Small business Management at MUBS year two.

[0:02:48]

S4: Student number four, my name is XXX doing Bachelors of Business Administration year two.

[0:02:55]

S5: Student number five, my name is XXX, doing ah Bachelors of Entrepreneurship and Small Business Management here at MUBS year three.

[0:03:06]

Dennis: Thank you, ah bear with me one second, just putting it on flight mode in case someone calls us in the middle of the interview so apologies for that. Uhm what is your understanding of entrepreneurship skills?

[0:03:28]

S1: Student number one, my understanding of entrepreneurship skills is that, okay generally entrepreneurship, what I understand from it is that it is a process of creative destruction. Meaning that whenever someone gets the skills of entrepreneurship, the person can change like the old fashioned things into like into new into new and like more creative things ah like the person gets the ideas like in case like let me give example of like the what you remember like the Volkswagen uhh those cars, they were like looking out dated but these days they are bringing them back but it is that process of creative destruction that the old fashioned car was like destructed and it has been brought back in a new style and more people are getting it and that is all about entrepreneurship skills.

[0:04:32]

Dennis: Good

[0:04:33]

S2: Student number two, I understand entrepreneurship as the ah entrepreneurship skills as skills that one possesses in order to create and build something from nothing.

[0:04:48]

S3: Student number three, Uh to my understanding of entrepreneurship skills are the abilities, process, attitude of changing the old thing to a new way or coming up with a new thing like what we call innovations and creativity they are the key things or key skills of entrepreneurship. Creativity you can come up with a new thing and you market it in a way that you develop the idea about a new thing or a new product then you come up with that product and you market it in the market or

innovations you can bring the old thing that have been in existence in a new way like the example she has given us. You bring the thing that was there before but in a new way in that you get the attention of the customers' xx yeah thank you.

[0:06:00]

S4: I'm student number four, I understand entrepreneurship skills as skills that involve ah Identifying of gaps in the business environment that are not satisfied or untapped opportunities and coming up with products or services that can be able to fit those gaps and the needs of the customers or the society that needs them.

[0:06:20]

Dennis: Good

[0:06:22]

S5: Yes student number five, ah to me I understand like entrepreneurship is a process of undertaking something into a venture so the skills, entrepreneurship skills that we are using the skills that we can use in that very process to turn something into a venture, yes thank you.

[0:06:39]

Dennis: Agreed, yes uhm do you recognize these as entrepreneurship skills? Creativity and innovation,

[0:06:50]

S5: Yes

S3: Yes

S4: Yes

S1: Yes I agree

[0:06:58]

Dennis: Ah do you recognise opportunity recognition, creation and evaluation, as an entrepreneurship skill?

[0:07:06]

S5: Student number five, yes.

S4: student number four, yes.

S3: student number three, yes.

S1: student number one, yes.

[0:07:15]

Dennis: Hmm, we'll skip the question for you, do you recognise decision making as a key entrepreneurship skill?

[0:07:21]

S1: Student number one, yes I agree

S2: Yes

S3: Yes

S4: student number four, yes I do

S5: student number five, very yes I do

[0:07:34]

Dennis: By the way you're welcome to elaborate if you feel the need to elaborate so for instance if you thought that decision making maybe is more of a management skill as opposed to an entrepreneurship skill then you're welcome to elaborate, ah do you ah recognise implementation of ideas through leadership and management as a key entrepreneurship skill?

[0:07:57]

S5: Student number five, yes because in entrepreneurship you need to be a leader you'll see how you can use those resources into something that will be valuable. It is also good and very relevant.

[0:08:11]

S4: Student number four, I, I agree, because with implementation, this involves taking actions yeah, so that means you cannot just have an idea and leave it hanging. You have to take steps and make it come into existence, yeah.

[0:08:25]

S3: student number three, yes with me I agree with that because without implementation no entrepreneurship most cases because many people have ideas that can change the world but due to lack of implementation skills they tend to ignore those ideas yet they would be very wonderful.

[0:08:52]

S2: student number two. I agree with idea implementation because entrepreneurship is all about coming up with ideas and under taking them.

[0:09:04]

S1: Student number one. Yes I agree with the implementation of the ideas through leadership and management because like when you come up with an idea if you don't implement it or if you don't put it into tactics it will not work it will still remain like any untapped idea then through leadership and management in a way that when you are an entrepreneur or you have come up with any idea that you'll want to materialise it will be like through you as a leader because you are the one who is having the idea you'll obviously be the what, the leader but you can still bring other people in with whom you can work together because like two heads are better than one.

[0:09:49]

Dennis: Hmm which brings me then to ah the next ah skill, action and reflection, do you recognise that ah as an entrepreneurship skill? I know you mentioned that action is very important do you think it's a separate skill from the ones we've been talking about?

[0:10:03]

S1: Okay yes I agree. Action and?

Dennis: Reflection. Do you understand what reflection is?

[0:10:10]

S1: Yeah I understand. Reflection is all about like you come up with an idea it is not a hundred per cent that you're sure your idea is what, is going to be like worthy, so you have to reflect on how best you can make that idea to suit the needs of your targeted customers.

[0:10:33]

Dennis: Hmm, reflection also involves let's say you take some action and you fail, looking back and learning some of the lessons so that's ah that's actually in the context of this that is the skill I'm talking about, so do you recognise that as ah as a key entrepreneurship skill?

[0:10:48]

S1: Yeah I recognise it because it acts as a learning point for an entrepreneur.

[0:10:53]

Dennis: Student number two, action and reflection.

[0:10:56]

S2: I agree with it as an entrepreneurship skill.

[0:11:00]

S3: Student number three, I agree in that ah many take actions but when they fail to some in some point, they tend to deny those opportunities due to that mere failure but entrepreneurial skills or that entrepreneurial skill of action and reflection, it says that what you do must reflect your ability to change the failure part of it into a success so it's a skill in entrepreneurship.

[0:11:39]

S4: Yeah student number four, I agree because action and reflection is a skill in that uhm it helps the entrepreneur to identify their strengths or and the weaknesses of his proposed project he wants to pursue by looking back at the failures and the successes and make corrective measures to come up with and make the project well yeah.

[0:12:03]

Dennis: Student number five

[0:12:05]

S5: I agree uhm you see actions when you're to take like action, it means now you're taking the action you're working on maybe on the idea but you don't stay on the bulb. So when you're taking the action like it's said entrepreneurs are risk takers by the calculated ones, it means you have accepted but you can meet some, some you know some big stones in ahead, so you have to reflect back and see, look at your stages there, you had the strategies that you used then if it needs maybe some correction then you can do that in case like we said an entrepreneur you cannot give up you go on by looking back maybe or the idea you had before. I agree.

[0:12:46]

Dennis: Ah another skill is Communication and strategy skills; do you recognise that as a key entrepreneurship skill?

[0:12:56]

S5: Communication and?

Dennis: Strategy skills

S5: Strategy skills, it's very, very important because ah you cannot depend on yourself as a person you need to do different communications you need to involve different people you need to be aware of what is happening. There now comes in like research through different types of communications. So it helps you now to realise and even to do bench marking and even laying other strategies that can help you. It's very very important.

[0:13:26]

S5: Student number five, it's very I agree because uhm

Dennis: Aren't you number four?

S4: Student number four sorry, so uhm I agree because ah strategies and communication are skills in that as an entrepreneur when you come up with an idea and you want to you... you you might need some support from people or other colleagues. That means you have to be able to communicate your idea to them such that they can be able to understand and be able to support you. Also in case you come up with a product, you want to take it to the market, you should have the have strategies laid down and how the product will reach the targeted market, yeah.

[0:14:08]

S3: Thank you this is student number three, yeah I agree with that skill of communication and strategy. Uh strategies are the means that are laid down to reach at the, or to achieve what you intend to achieve so without those aims or means, you can't really achieve what you wanted to achieve. Ah that thing came out from the industrial revolution after the failure of many companies due to the lack of strategists. Ah so from that point, entrepreneurs need to lay down the tools or the means of achieving their goals and they need to communicate those means to the stake holders. For

example if it is a company, you are the CEO you have laid down the strategies, you have to communicate them to the employees, to the shareholders in that you work hand in hand to achieve the common goal.

[0:15:08]

Dennis: Student number two

[0:15:10]

S2: Student number two, I agree with communication and strategy because entrepreneurship is all about networking with others and for you to come up with a better thing in entrepreneurship, you have to ensure that you lay down strategies of what you are doing.

[0:15:28]

S1: Student number one, I agree with the communication and strategy skills because without strategies or courses of action like whatever you are you are the idea that you had in the implementation will obviously fail because if you don't have the strategies, how are you going to like what is the link between you and what, and the targeted customers.

Leave alone the customers what about the other stake holders? Meaning you have to lay down your strategies to see how you can achieve your idea in order to satisfy the needs of the what, of the customers and also that one will be through the communication that you create network with others like and through creation of network and because of the communication it will what, it will aid you to increase yourselves in case like your idea was all about product creation to increase yourselves like it will enlarge your market base.

[0:16:36]

Dennis: I'll come back to the issue of networking after this, so last but by no means least in terms of entrepreneurship skills digital and data skills, especially for your generation; do you recognise this as a key entrepreneurship skill?

[0:16:51]

S1: Yes I.....

Dennis: And what does it mean to you, digital and data skills?

[0:16:55]

S1: Student number one, yes I agree and I recognise digital and data skills because first of all we are moving to a digitalised world. The world is all it has become like a global village because of digital skills and we as entrepreneurs we wish to pursue this because without digital skills there are some like you can have your idea but there are some skills like through digital actions that you can get in order to what, in order to make your idea the idea that you had generated more like realistic because when you do things like in a manual way without the use of digital skills still it will take you

like like an old fashioned person that's why like most people they are trying to revolutionize and like pursue digital skills in entrepreneurship.

[0:17:55]

S2: Student number two, I agree. I think digital has helped entrepreneurship to move closer to different people. I'll give an example of Jumia, it's an organisation based in another country but we are able to relate to it, use it in entrepreneurship like because of digital that's what I think.

[0:18:21]

S3: Student number three, yeah I agree with that skill because I myself in my business I use more of digital online digital....

Dennis: What business do you do?

[0:18:34]

S3: Ah I do fashions, I sell suits, dresses and others, so I have three different platforms; I have Facebook, I have whatsapp and I'm planning to open up a website so meaning with, in this era without digital skills you cannot success in the what, in the business world because the world is moving from that analogue way of doing business to digital so meaning you can use your smartphone to access your client, your customer, your supplier and everybody or every stake holder in your business. Me I'm enjoying that skill because I've accessed it from MUBS so I'm using it to boost my sales, to boost my business so indeed it is needed or required in entrepreneurship.

[0:19:37]

S4: Ah student number four, (*excuse me*) I accept I say yes to that digital and data skills. As an entrepreneurship possess, an entrepreneur should possess those skills because now the innovation and technology has really improved has got at it the rate has really increased, in that it helps in terms of speed, ah in terms of making quick sales, in terms of getting more information about a given business idea or project plan on wants to access I mean to implement in that he can be able to get that information from the internet, from the web and also it helps in in uhm creating some good connection between the customers and the the entrepreneur in that he can be able to reach quick and faster.

[0:20:22]

S5: Student number five, yes I agree uhm in entrepreneurship we have two concepts that is creativity and innovation so we look at the digital skills and data ah process we look at this actually these skills gear goes two aspects at the same time whereby for example you have a product now when we look at the marketing it is very easy to market it and even in terms of other kind of communications you are on whatsapp, you are on Facebook like you learn to know very many

people at the same time even you look ah like where we are right now it has been the digital skills they have helped us so without digital skills right now you cannot survive.

If you are beginning a business, if you have something that you want to begin on and you are not on you are not engaging in such, it is very very difficult because you won't find customers easily and won't even find the the the the the nice research you are supposed to have.

[0:21:22]

Dennis: Those skills, do you think there are any other skills that I have missed out from your point of view that you think are key particularly for this Ugandan environment particularly for this generation of Ugandans. I know you mentioned something to do with networking ah I think you also talked about networking at some point. Any other skills that you think I missed?

S1: Ah

Dennis: You want to elaborate on networking?

[0:21:54]

S1: Okay, Student number one, okay networking skills, okay like it helps a lot like in entrepreneurship because through networking, one is able to meet other entrepreneurs like global and because like take like Uganda, we are still not like though we have the ideas, we are not yet perfect at implementing so we need like a lot of networking in order to in order to boost our entrepreneurship because still many people in Ug they still have that poor attitude towards entrepreneurship, they think all the work is embedded in what? In offices not knowing that through entrepreneurship you can create your own job and you can link even like you can link with others and that one can open for you any opportunity. It's not all about entrepreneurship is not all about being educated even an illiterate person can, can network with others.

Then the other skill I think you we need in Uganda is like partnership skills because through entrepreneurship like in entrepreneurship like one cannot do it all alone you need partners with whom you can, you can share your idea then you need others who can also guide you wherever like you go wrong because one head is never a hundred per cent perfect.

[0:23:34]

Dennis: Would you like to elaborate on your

S4: problem solving?

Dennis: Problem solving I think it was, yes

[0:23:41]

S4: Yes ah student number four, I I think and I suggest that there's a skill called problem solving skills and personal relation skills. An entrepreneur should have skills that ah in case there is an issue amongst ah his colleagues or within within his company, he should be able to to solve those

problems in a way that he leaves everyone at harmony because harmony is very important in business it makes business go forward, yeah.

[0:24:13]

Dennis: Any other observations in terms of the skills that may have been missed?

Okay at this point I would like to make note of the student number seven who has just joined us

[0:24:24]

S1: student number six

Dennis: Ah sorry number six you're very right, it's okay. Uhm one of the things that I'm looking at is way in which you become entrepreneurial, I know you said that you are already doing a business ah I think we met earlier and you are already doing ah business uhm and there are three ways we think actually there are more ways than one we think that entrepreneurs can be, all these skills we are talking about can be acquired for you to be entrepreneurial.

One is curricular which is what happens when you are in class. Yeah so the lecturer is there, they are teaching you about ah business model canvas and they are teaching you how to become an entrepreneur and as a result at the end of the semester you have an exam and that gives you these kinds of skills.

The other one is extracurricular; completely outside of class and has nothing to do with your exams but somehow whatever you are engaging in out there let's say for instance your business that you're already involved in, the stuff that you are already doing anyway outside of class ah maybe with entrepreneurship society, things like those that have nothing to do with the exams but you could also pick some of these skills from there.

Then the other one is somewhere in between which is co-curricular. So we have curricular, extracurricular then the other one is co-curricular.

Now, in your view which one of these three do you think is most effective at giving you these entrepreneurship skills? First and foremost you have understood have you understood the three aspects? Student number one

[0:26:08]

S1: Okay student number one, according to me I think co-curricular is the most suitable because it comes like between extra-curricular and what curricular, in that like much as we, we get the we attend classes, they give us the models of entrepreneurship, when one is not motivated, a person cannot even have that feeling of becoming an entrepreneur then again extra-curricular, since it is outside like most people don't mind like they don't mind about it, they take it less serious so I think it is the co-curricular which is the most suitable.

[0:26:56]

Dennis: Okay, student number ah six actually

[0:27:00]

S6: Number six, before I draw a conclusion to which one and which on is best I would at first before I make my conclusion wish to know what society basically are we dealing with because.....

[0:27:12]

Dennis: You, we are dealing with you right here right now

S6: The society I'm in?

Dennis: Yes

S6: Then to the society I'm in I do believe co-curricular as she said student number 1 gave this option because I believe we do need a little hint on how it is handled that is us in class when the lecturer comes in, that is the curricular detailed by you and the extracurricular bit of it where you go out and research where basically I settle my mind to see that I can push it through yeah. So in such a society that I'm in I believe I should have two, I should be two way, both. Yeah it should be a curricular and extra-curricular making mobile curricular.

[0:27:49]

Dennis: So just to clarify, curricular is what happens in class, teaching and everything, extracurricular involves a number of things, for instance if you are talking about uhm communication and strategy skills, you could argue for instance that playing football which is outside of class will give you these communication skills because if you are a team captain, you have to co-ordinate ah and organise the team if you are running a tournament ah there are some leadership skills ah you're recognising an opportunity that if I become a chairperson of this association then I might get some access to x number of things so you are developing those skills without you realising that these are actually happening in class yeah, so those are the two things we are trying to find out from your point of view so student number two.

[0:28:39]

S2: Student number two I believe co-curricular was better because ideally in class, most of us you come at the start of the lecture immediately you suit they give you the theory bit, you move out. You don't get time like to talk to others eh to explore more but I believe with co-curricular that that other side you are able to communicate with others because if you remember the; what thing took place last semester

Dennis: Leap conference?

S2: no, its sports kinda

Dennis: sports gala?

[0:29:17]

S2: We were able to communicate with others they tell you this is this is which course BA? BBA. They are the ones playing, you are able to talk to them like that so you can you can you can identify some opportunities within them that you can't identify in class.

[0:29:36]

Dennis: So remember the skills we are talking about ah; creativity and innovation, opportunity recognition, decision making, implementation of ideas through leadership and management, action and reflection, communication and strategy skills, digital and data skills. So student number three ah curricular, co-curricular and extra-curricular.

[0:29:57]

S3: To me co-curricular would work for entrepreneurs mostly the made entrepreneurs. We have different categories of entrepreneurs, we have those who are born entrepreneurs; for them they may not need the curricular bit because for them if you are born an entrepreneur if you go outside, you easy there it is easy for you to identify the opportunity and exploit it but for made entrepreneurs, they are made by different circumstances, by different situations for example some acquire knowledge in class and from that knowledge they get to be motivated to be entrepreneurs from the knowledge they tend to identify some ideas from class, from the books they read. So for those, they need curricular uhm part then for born they need extracurricular is can work for them very well but to me I am I think we need both extracurricular and curricular because ah me as an example from the knowledge I attained from class, I got the motivation of entrepreneurship then when I went out of class, from my networking from my friends, I generated the idea of the business I've told you I'm dealing in from my network from my friends who was doing a related business, me I started that business of fashions so meaning when you balance the two you can be a wonderful entrepreneur that's my conclusion.

[0:32:03]

Dennis: Student number four

[0:32:06]

S4: Student number four, I would choose I would go with co-curricular in that ah as an entrepreneur you need to balance you need to have the knowledge and you should also have the experience of the field ah for example we talk of a skill for example record keeping and book ah account keeping skills you can get them from curri from school it helps you like to know the profits in case your because you are aiming to an entrepreneur's aim is to make profits so you know how these business run and you cannot just know without picking some brief education or literacy from the curricular

and then for the extra-curricular it helps in making these theory practical for example nanti in class I didn't get other skills using that field so I go with co-curricular.

[0:32:54]

Dennis: Student number five

[0:32:56]

S5: Student number five ah to me I would go with the ah two but co-curricular and extracurricular thought to a big extent I would go with co-curricular because I'll take you to I'll give you some examples when you look at the first world countries, for them they look at someone like what you want from the beginning like early stages while you wonder what do you feel like you want to be in future then you take that very part but it's unfortunate here where you find that someone is holding bachelors PhD and whatever but finally you are done with books but you are doing nothing so your head has been you know you are concentrating just in books in theories but practically you are nothing so I would agree maybe I would rather advice in this kind of way where you identify someone just at early stages then you develop that person but I believe ah extra-curricular is very very important because among the skills we've shared already you and use those skills like digital ones to develop others that can help you succeed in thank you.

[0:34:00]

Dennis: One last question on these skills and specifically about the curricular, co-curricular and extra-curricular. If I had not told you about the co-curricular as an option, which of these two would you have gone with? Curricular and extra-curricular in so far as either of those gives you the skills that you need to be an entrepreneur.

Do you think you need to be in class the curricular aspects or do you think extra-curricular activities which could be anything from participating in entrepreneurship society ah red cross society, guild ah elections, football, name it. Do you think in terms of the skills that are around creativity and innovation, opportunity recognition, decision making, implementation of ideas, action and reflection, this is nothing to do with accounts for instance or ah costing and these are the skills that you need to ah to come up to identify opportunities, create something new, start your business, those kinds of skills.

So if you had a choice between these two; curricular and extracurricular, which one do you think will be most effective in equipping you with these entrepreneurship skills? Student number five

[0:35:16]

S5: Thank you very much student number five. Currently you know the world is changing and if now you don't follow the speed right now then you are outside the box. Right now you need to be having those skills. I would go with curricular because you see when we look at the skills you are talking

about, they need that kind of mind that you have obtained. Well now the question remains one now what are you going to do? Are you going to change those theories into practicals? But right now you need to acquire those skills you need now to go with curricular because even in the end you find those people with big business those who have already started something they need to get in those people those who have already studied about entrepreneurship. So right now it is very very vital.

[0:35:58]

Dennis: Student number four

[0:35:59]

S4: Student number four I would go with curricular in that ah all those skills really need to be you need to have them and some you need to be taught for example computer skills give an example of someone

Dennis: Digital and data skills

S4: Digital and data skills, someone from the village maybe he hasn't got any experience of computer and so he cannot even if he tries out, he won't do it effectively he'll make mistakes yeah so but when he comes to school and he is given that experience

[0:36:27]

Dennis: But he might for instance be playing computer games in the dormitory with his ah uhm friends ah not necessarily come into pass

S4: Yeah that is true I'll give an example before I joined campus I was a drop out. I used to be a club DJ I knew to play music computer wise everything but then the problem came when I had my first course work it was ICT I didn't read I remember just ICT its word just typing, reaching there we had to insert shapes, we had to draw graphs so I knew the computer but how to make it really effective

[0:37:00]

Dennis: That's a very good example

S4: Exactly so that's why you see I would really go with curricular.

[0:37:04]

Dennis: Student number three.

[0:37:05]

S3: Thank you. Me I would go with ah extra-curricular reason being many people acquired knowledge and skills from class about entrepreneurship they have been taught creativity and innovation in class but they cannot generate any single viable idea.

So to me from outside from outside the class, classwork from the world network one can be a successful entrepreneur because we have seen many illiterate people being great entrepreneurs reason being, for them they can identify the idea and they work upon it but for the most of the

people who have acquired knowledge from class, they they just have the knowledge about the thing theoretically but they don't have that practical part of it

[0:38:10]

Dennis: To implement

S3: To implement it. So they lack that implementation skill though they have the knowledge and other skills like communication, strategies they have the strategies but they don't implement them reason being they have that feeling, that fear of taking the actions

[0:38:34]

Dennis: Hmm and yet action and reflection is one of those skills

S3: Yeah.

[0:38:37]

Dennis: Student number two

[0:38:38]

S2: Student number two, I believe curricular is better because many people who came up with businesses without going to class, at the end of the day they avoid people who go to class. I'll give an example of myself during holidays I work for someone I'm not I'm not a professional but I do what I can to manage his business. He has everything but can't manage the business. We get more skills from class than what those who don't go to class get.

[0:39:16]

Dennis: Student number six

[0:39:18]

S6: I solely I do believe that the the basic principle for entrepreneurship is self, having self-drive having self-demand for something and I believe the best opportunity one can easily grab is when you go for something that you wish is more good for you and you have the will to take it on. I do believe when someone goes out on at extra-curricular as detailed by you someone safely drives himself that yes I'm targeting this tooth or nail I have to achieve this than when we go to class we do ah ideologically it's believed that campus students literally know what they do what which me personally in reflection to the society I'm thinking for now that I'm in campus a lot of eh big numbers are in school but still can't define that yes I'm planning to do this I'm planning to do this which I find irrelevant but if someone goes out and says that I'm seeing opportunities here and so I'm going to incur into football for instance they will do tooth or nail to see that they succeed in what in in the particular target he has been .

By that he is acquiring the skills I believe he's acquiring how to manage despite the fact that yes he will need educated people to come and manage your business as she has said ah student number

two, the sole the sole the successful person would be that one who selfly went out the box and decided to take on that

[0:40:58]

Dennis: So what you are saying is that that personal drive cannot be taught in class?

S6: Yeah

Dennis: And I think that's a key skill.

S6: It is even a very difficult to someone out to have personal drive coming to school and he has to grasp all the theories as detailed by the lecturer than someone who goes out, he sees relevant examples that this is done by this, this and this and by such a procedure. I believe extra-curricular is the best option.

[0:41:24]

Dennis: Okay, student number one

[0:41: 28]

S1: Student number one, I believe extra-curricular is the best because when like extra-curricular is something like you are not forced to do, it is your own demand that you want to pursue that thing and it is you who sets the target on how you are going to achieve it like fully.

So in that way the person will be like as he said self-driven to achieve or to attain what he or she wants to do for example you have seen like many entrepreneurs outside they are not majority are not educated though they would like to gain that bit of education but they have made it just because what, they were self-driven and it's all because of the extra-curricular and though I go with like extra-curricular to a greater extent however like the curricular bit is also vital because it is, it is sometimes the knowledge that we get from the class that will what, that we are driven to do like we get the entrepreneurial idea because I give an example of myself; when like they gave me this course I didn't know what it was all about but at least I've felt I've changed though like I don't own any business yet but I feel I've changed, I've gained some knowledge through the skills they have given us in class.

[0:43:07]

Dennis: So if you had to choose between these two curricular and extra-curricular which one would you prefer in terms of either of those equipping you with the skills that we are talking about?

S1: Yeah me still I would choose extra-curricular

Dennis: Okay

S1: Because again because sometimes you can be in class like we just learn it for the sake of getting the what, the good degree but we can't put it into practical.

[0:43:33]

Dennis: Now the last question is about ah the wider environment in which you live yeah so bear with me one second I'm trying to open the, this other page.

So the next question is about something called the entrepreneurial eco system. So I'll save you of the details about the entrepreneurial eco system because it's a lot of information however in summary an eco-system is everything else in which we are operating and for entrepreneurs there are some six key aspects that affect the extent to which your businesses are operating.

They include policy; the government policy on a number of things, they include finance you know micro loans, angel investors, your mom giving you money ah banks, they include culture so if you are from the north if you are a muganda if you are from kabale like myself uhm how does that impact on the extent to which you are becoming entrepreneurial or acquiring these skills. It includes support; support systems like the rotary for instance or the entrepreneurial society or the business chamber of commerce, It includes human capital so things like the schools that you are in at the moment so if you went to secondary school where you were having to play around with money and working on student projects it includes markets like the state of the markets you know ah is it a digital market, is it a downtown market in kikuubo, is it online market that you talked about, so the state of those markets.

So that is generally the environment that you are in, I wanted to find out from your point of view the extent to which you think by the time you come to university that that environment that has already made you acquire some of these skills without you realising or do you think that whilst you've been here at university and will be helpful while you are answering his question so remind me which years you are in whether you think whatever happened before you came to university was more effective in terms of this environment impacting you on being entrepreneurial acquiring these skills or do you think what's happening at the university is what is helping you to be more entrepreneurial. So student number five?

[0:46:09]

S5: Yes student number five ah to me I think

Dennis: Sorry which year are you in?

S5: I'm in year three

Dennis: Yeah for the sake of the recording.

S5: Okay I'm in year three student number five. Ah to me I think like you have said eco-system, the policy finance and everything in the market, I believe the problem we still have here I might not say human capital because I can see there is human capital the problem here we have ah I will call it the culture ah we have different cultures for example in Uganda and in every different region but you'll find yourself in a different area and you realise that the kind of business or the venture you can

begin from there cannot apply where we still have some people with different bills where you even find your from a family and the family is like for us we can't deal with such stuff ah we have different religions; the protestants, the Catholics, the ah the Muslims where you find that ah the pork joint can work in a certain area but because of the region, you cannot you cannot go on with it so you realise that It is difficult at times to engage in different businesses because of the culture even the perception of the people.

For example I'll give myself an example I was in internship ah last summer then ah I was asked to have a plan a business plan so I developed it and according to the nature of the area and other requirements then and I was blessed that I was given a go ahead and the investor liked it but recently when I was working when I was finalising about it then I had to go now look at the policy I had to go to different government official and stuff then someone could feel like at your age and you are working in such stuff you are able to get 2.5 because of this one, such stuff from from you know someone looks at a different perception say at your age, you are still studying and people have already finished they don't have jobs and for you you want to begin like that?

So I was asking myself really this is the world that we are living in someone just you know rates you according to how maybe his or her eyes feels like so you find now such stuff are limiting us to go on where some people think that maybe according to the age know you are capable of this because maybe you are old.

Dennis: So you think the culture around where you come from matters much more than what happens at the university?

S5: Yes.

[0:48:47]

Dennis: Ah student number four

[0:48:50]

S4: Student number four I'm in BBA year two student. Me I I the way I would put it I'll generalise it in a way that ah the eco system like the environment it just increases or it brings up the need for entrepreneurship now like me when I was in that before coming to school I realised uhm people have different needs, government needs taxes, ah and then that means that I should start up a business that will support my government and be able to make taxes to the government and also if I start up that business I should know the laws that govern that business, you see?

So without this education, ah which is now the literate which we are receiving from campus I would not be able to do it effectively so the other the environment created for me the need for me to become an entrepreneur because I realised how would I go through all this ah or make it or make it in life or be a successful business man because I realised a lot of gaps but then I would not be

effective If I had not if I would not bring it up and come and acquire skills at school. Yeah basically it was like the foundation of my entrepreneurship.

[0:50:01]

Dennis: Student number three, which year of study?

[0:50:06]

S3: Year three entrepreneurship. To me I think the environment at campus can make someone a good entrepreneur. For instance me I'm from west Buganda that's lyantonde but when I was still there from my childhood to senior six I couldn't generate some good ideas about business what, I couldn't think in that direction, it may be due to the culture, the support from your relatives you know so and so will help me, so and so will help me but when I came to Kampala to study I found many different cultures at campus, different people ah so different friends so from those friends it's where I got my ideas as earlier I told you so meaning ah campus life campus education has helped me a lot than the other environment.

[0:51:16]

Dennis: Student number two

[0:51:18]

S2: Student number two I believe ah the environment of MUBS is favouring. It can mould someone into a better entrepreneur yeah people are allowed to trade inside school for I think for student in MUESA they have xxx they can easily trade in school, people don't base on cultures here people relate with one another you can talk to anyone you feel like people are not biased about cultures you can trade things with others regardless of cultures and background.

Dennis: Yeah, so which year are you in?

S2: year one

Dennis: Year one, so what you are saying is that whatever was happening in the environment which you were before you came to the university was less effective in making you entrepreneurial than what's happening within the university whether it is through class or outside of class but within the university?

S2: Yes

[0:52:17]

Dennis: Okay, student number six

[0:52:19]

S6: Ah student number six

[0:52:21]

Dennis: Which year?

S6: First year, yeah differing from student number two, I realised that the environment outside campus I did refer to MUBS to me in my entrepreneurship way because err luckily or unluckily I'm nurtured by a single mother so I remember I quote, I would love to quote one successful entrepreneur who said ah "necessity is the mother of innovation".

I believe ah so it reached the point when I have to go to school, I have to make sure tooth or nail I have to get my ka pocket money that I should go with you see down the down way when I was still preeminent so I had to make sure that I utilise the opportunities around me to see that at least I make sure that I get some ka portion that I would love to cease with to go to school because I was nurtured by a single mother, she had a lot of responsibilities and I couldn't denote even that little take top her so uhm I had to make sure that every opportunity that I see, I learn from it, I utilise it and see that I successfully gain something from it. By that I was becoming an entrepreneur illiterate but which was true. I believe the world outside did work more than campus.

[0:53:44]

Dennis: Okay, student number one which year again are you in?

[0:53:51]

S1: I'm in year three.

Dennis: Year three, so before you came to campus the environment outside there and since you've been studying entrepreneurship, which one of those two has been the most effective in giving you the entrepreneurship skills that we were talking about earlier?

[0:54:05]

S1: Okay to me I feel that it is the environment at school that has given me more motivation because much as like outside world you can still get motivated because like you can see people struggling, people have a lot of businesses, people are coming up with new things, it can motivate you but still whenever you want like have a bit of conversation with such people you know like in Uganda you feel most people like the introverts so you can you can really have that urge like to have also a business like someone maybe with time but when you try to ask such a person like how did you make it to this point, the person cannot tell you all that he did which made him to be successful but now as I as I joined campus like I I feel like I've been motivated because in MUBS here there is that free world, you are allowed to do whatever you want to do in terms of business I remember when we were in year one we had our Friday market in which you like you used to go and sell whatever you feel you can sell to the what, to the to the school and that one made me like more motivated because from outside people like they don't give you all that the skills that made them to, to be successful. Yeah

[0:55:39]

Dennis: Okay this ends the interview unless you have any observations given the questions that I've been asking. Do you have any observations anything interesting that you think I ought to have captured? Student number four

[0:55:56]

S4: Student number four I would just want to pick from what when you are comparing the extra-curricular

Dennis: And curricular?

S4: And ah yes curricular so me I would say like generally like the way I would generalise it for extra-curricular would be effective if the vision of the entrepreneur is the short term vision but extra but curricular would be ideal for a long term vision.

Yes because an extracurricular entrepreneurship entrepreneur who decides to take that course of action, he will make it but then some point in the future, it will catch up with him or her. Yes but someone who has created a firm foundation of the curricular, it's easy to manoeuvre all those other hardships that can come in the long run. Yes

[0:56:42]

Dennis: Okay any other observations? Yep student number one

[0:56:46]

S1: Student number one, mine is a question, now that we have been talking about like the entrepreneurship skills what then looking at Uganda like there are many people who wish to become entrepreneurs but they lack like those skills much as like someone can come to class and attend but still the person cannot go out into the world and do it like effectively, so in Uganda what motivation can you still give to us as entrepreneurs like those who wish to do entrepreneurship in future?

[0:57:35]

Dennis: That is a very interesting question which I'm happy to answer after the interview because this only relates to the interview. Anyone else has an observation to make on the interview?

If there is none, then I would like to thank you very much for having participated as I said earlier all your audio will be anonymised and because you have student numbers ah your privacy will be held intact but thank you very much uhm and this ends our interview at ah 13hrs and 18 minutes thank you.

END [0:58:14]

C. BCU AND MUBS COMBINED STUDENTS' FOCUS GROUP - VERBATIM EXTRACT

Interviewer: Dennis Aguma

Welcome. It is midday in the UK, let me first make sure everybody who was supposed to join us has joined, there is ten of us and that's a good place to start. Thank you very much everyone for agreeing to participate in this focus group; It's exploring the impact of entrepreneurship eco-systems on the choice and effectiveness of various methods of entrepreneurship education.

This research is being carried out by me; my name is Dennis Aguma, am a researcher in the department of management here in Birmingham City University and my research project is under the supervision of Dr. Suzan Sisay and Dr. Charlotte Carey. This study is really exploring the effectiveness of the different methods of entrepreneurship education in terms of how they help to achieve entrepreneurship skills.

All of you have been invited in this study because you studying entrepreneurship or a business related module. Just to let you know, participation in this study is voluntary and by giving consent to participate in the study, I assume that you have read the information that I shared before and that you still want to go ahead but if this is not the case please let me know and we can stop the interview for you at any given time. I am hoping this will take us one hour but worst case scenario it might go up to one and half hours maximum, I did communicate that we will use one hour so if after you really want to drop off, feel free to drop off you can use the chat option just to let us know and that will still be okay but I would hope and pray that we stay throughout the focus group.

I will be asking you a number of questions regarding entrepreneurship, also about entrepreneurship education and how the wider environment outside the university affects the events and the extent to which you are entrepreneurial. Please use your first name just to protect your identity because this is being recorded and transcribed and because of data protection we would want to keep you anonymous so use your first name and in this case I would say my name is Dennis as opposed to am Dennis Aguma and when responding I advise you would say am Dennis and my response is this so when we looking at the data we know who is talking. Luckily I have all your information from the form that you completed so I have other details like your gender, age so you don't have to repeat that, just mention your name and go straight to the answer.

Please feel free to chip in whenever you think that there is an important point that you want to make for instance if someone makes a comment on something and you have an opinion about it,

please go ahead I would want this to be as free and relaxed as possible. I hope the rules are very clear at this stage. Is that okay?

...Please feel free to unmute yourself and chip in at any moment when I ask a particular question, you can also use the chat option if its available on your on your side it can be very helpful.

Our topic of discussion and why you're really on this focus group is mainly on entrepreneurship, entrepreneurship has very many definitions but it's generally the ability and readiness to develop, organize and run an enterprise for a business along with any of its uncertainties in order to make a profit although sometimes people set up business for reasons other than profit such as charities so even those individuals are regarded as entrepreneurs.

While the most prominent example of entrepreneurship is starting of a new business, people with entrepreneurship skills can also thrive within the larger organizations so you will find them in banks and other places; you could be entrepreneurial within an existing organizations. The other second definition that I wanted to take note of is entrepreneurship skills, entrepreneurship skills are necessary to help you achieve the skills of being entrepreneurial so any skills that you think are important in helping you to become entrepreneurial are called entrepreneurship skills. For the purpose of this focus group, we will define entrepreneurship skills to include these areas;

1. creativity and innovation,
2. opportunity recognition, creation and evaluation,
3. decision making supported by critical analysis, synthesis and judgment
4. implementation of ideas through leadership and management
5. action and reflection
6. communication and strategy skills
7. digital and data skills

Those are the key skills of entrepreneurship for the purposes of this focus group so please take note of them. Given what I have just shared; the definition of entrepreneurship skills and what entrepreneurship skills are, what is your understanding of entrepreneurship skills or do you understand what entrepreneurship is and do you recognize the several entrepreneurship skills as I have highlighted above, I will call out one by one to share and I will begin with Student 1 - From MUBS

Student 1 - From MUBS; thank you Doctor for the opportunity, my submission is that what I understand about entrepreneurship is the ability to recognize a need probably in the community and that you are able to put up resources to develop a product that can be able to satisfy the need of the community; that's what I understand about entrepreneurship and then entrepreneurship skill is just the ability to recognize a problem and a solution, it's a skill embodied in a person

INTERVIEWER: - Okay thank you, Student 1 - From MUBS

Student 2 - From MUBS; according to what I have heard from you and what I have understood, entrepreneurship is the ability and readiness to develop, organize and run a business; then entrepreneurship skills is having the ability or the potential to develop that recognized opportunity or idea, for example you talked about being creative, innovative then opportunity recognition, action and reflection skills , communication and strategy skills then there is digital since the world has gone digital so as an entrepreneur you should have the digital skills and other skills, thank you so much

INTERVIEWER: - alright anyone who would what to go next

Student 3 - From MUBS - I can go ahead

INTERVIEWER: - please go ahead

Student 3 - From MUBS - could you repeat the question again so that am sure am saying it correctly

INTERVIEWER: - okay, I did explain what entrepreneurship is and also explained the various entrepreneurship skills that am looking at for the purposes of this focus group and I did ask what us your understanding of entrepreneurship skills or do you understand what entrepreneurship is and do you recognize these that I have highlighted as entrepreneurship skills or have I missed anything that you think is important

Student 3 - From MUBS - I do know that it obviously involves a wide range of skills and activities which include identifying a market opportunity or a gap while developing a product or a service. I also do know that they have to be creative, adaptable and resilient and only a few successful ones are able to pass those challenges along the way

INTERVIEWER: - thank you Student 3 - From MUBS, who else what to have a go at the same question

Student 1 - From BCU- Just want to say I agree with what Student 1 - From MUBS said about having to find a problem and creating a solution for that and I also think entrepreneurship is making something that's already out there better, its either solving a problem or making something better because otherwise there is no point because the market is so saturated. For the skills you put up I think they are all important but also I think that being an entrepreneur you don't have to have all those skills I think you can be good at a few of them and get a team that can help you with the other ones as well

INTERVIEWER: that's a very good observation thank you very much, anyone else who what's to have a go

Student 2 - From BCU- my name is Student 2 - From BCU

INTERVIEWER: - yes Student 2 - From BCU go ahead

Student 2 - From BCU: - my understanding of entrepreneurship is that it requires an multitude of skills that overlap to end up with a final successful entrepreneurship venture and that can either be for profit or non-profit but I think it's also important to understand that the skills are not just limited to one specific individual to a field of work and anyone can be an entrepreneur and it's also good to understand the fact that the skills are not just the hard skills but also the soft skills both of them combine together to eventually run a business

INTERVIEWER: - Thank you very much Student 2 - From BCU I like the various takes around entrepreneurship, Student 2 from MUBS agrees with Student 2 - From BCU.

Student 3 - From MUBS go ahead

Student 3 - From MUBS good afternoon once again, I myself I have tried to venture into entrepreneurship and tried to run a business; my understanding as well is that what you explained about entrepreneurship and the skills is all correct but I think also being an entrepreneur you need to be well informed about the environment, you need to know the people that you going to exactly target when starting up a business. You need to know the community you going to target and the people that are going to be your customers and then you need to be informed about the various things that are happening in the world, for example if you have started maybe supplying reusable sanitary pads, are these pads going to help people around you and will they benefit them. You also need to have a lot of digital skills because things are going digital so you need to know a lot that concerns the digital market, you need to have good social media skills

INTERVIEWER: - thank you very much you have highlighted two of the things that we are going to talk about which is what is happening around you and the digital skills so please hold that thought for a second

Student 4 - From MUBS; this is Student 4 - From MUBS and according to me I would define entrepreneurship as simply an activity of setting up a business and then I would define entrepreneurship skills as initiatives that an entrepreneur undertakes in order to setup their business and as noted some of the skills can be being creative, innovative, being able to take up opportunities; I can also add on being a risk taker

INTERVIEWER: - thank you, does anyone else want to say anything that we may have missed on the definition and the kind of skills that you need for entrepreneurship

...

INTERVIEWER: - okay I will go to the next question, which is looking at entrepreneurship education and this is focused on how you actually learn or how you acquire these skills. All the skills that you have been telling me about; the digital skills, the action and reflection creative and innovation; Entrepreneurship education is focused on how you learn or acquire those skills. Please make note of

the following terminologies and then answer the questions that am going to follow them with. I am going to describe three things in terms of how you actually learn; one is the curricular methods, the other is extracurricular and the third one is co-curricular. Curricular means everything that you learn in class so in-class activities that focus mainly on delivering entrepreneurship skills in an academic setting so learning about business plan or business model canvases and or doing entrepreneurship in class with the expectation of doing one or part of your assignments so you learning all of these things with the purpose of getting an assignment or a grade and of course when you doing this, it gives one of these skills we are talking about. For instance if you putting together a business plan you being analytical so that's what you learn in class; extra-curricular is non-academic activities that are not a required part of the curricular so you don't involve and academic credit, the participation is optional for instance being a member of the business guild, being a member of the debating club, being a member of the entrepreneurship society or even just the part-time activities you do outside the of the university, it's the activities that you involve that give you the kind of skills but not in a typical classroom setting. Then co-curricular is a mixture of both curricular and extra-curricular, these are activities that complement in some way what you learn in class for instance starting a business as part of your assignment; your business might be that you come up with a new product but of course you get marked against your new product so even though you going outside and being practical in putting together this product that you going to sell, it's a mixture because the journey started in class even though you have interacted with a lot of outside so that's co-curricular, it's a mixture of what's happening in class and extra-curricular which is happening not necessarily in an academic setting. Are these very clear definitions, have I described them clearly for you to understand them

(Participants acknowledge that they have understood the explanation)

INTERVIEWER: - alright, having understood these curricular, extracurricular and co-curricular activities, which of these three methods of learning do you think is most effective in giving you the kind of entrepreneurship skills that we were talking about earlier and why

Student 2 - From MUBS I would say extra-curricular because personally I have done entrepreneurship before and that's what has helped me with my business

INTERVIEWER: - thank you, who else

Student 5 - From MUBS;- I would also agree, I would take on extra-curricular because you have more of hands on experience when you doing extracurricular and in accordance to what we discussed from the definition of entrepreneurship and entrepreneurship skills I believe we acquire many more of these when doing them hands on rather than the theoretical bit of it

INTERVIEWER: - so the key thing here being the actual doing, being involved in the hands on practical elements you likely to acquire these skills as opposed to someone telling you about them in class

Student 5 - From MUBS; - yes please

INTERVIEWER: - okay, Student 3 - From MUBS

Student 3 - From MUBS thank you Doctor, I would also want to add onto Student 3 – from MUBS - I would also go with the extracurricular because entrepreneurship is more of hands on like she shared and you gain the skills the more you do the work and interact with your customers or with other people, that's how you keep on growing your skills

INTERVIEWER: - thank you, who else

Student 1 - From MUBS;- for me I will go with co-curricular because in entrepreneurship, before someone goes in the field they should have the knowledge or theory behind an idea so that by the time that person is in the field, he has fully parked knowledge about something from price and then goes in the field and apply the knowledge being given . Here we run a co-curricular where a lecture provides written information and guide on how we can explore opportunities in the world and after the field we carry out what we call visibility study analysis on the idea being submitted during class discussion so for I believe a person having a theory behind an idea can do a perfect business in the world, thank you so much

INTERVIEWER: - thank you so much Student 1 - From MUBS, some interesting deviations, who else what's to have a go

Student 4 - From BCU; I would go with extracurricular because learning doesn't stop when we finish the course it carries on even when we are in the field, I feel like it's important for us to discuss and learn things out of our box because if we discuss with other people we learn their perspective as well and I feel like it opens our mind more and we will understand things more I feel with entrepreneurship you keep learning and the more you hear from people rather than just basing your idea on that topic, it's kind of closing your box

INTERVIEWER: - thank you very much Student 4 - From BCU, it's a very interesting differences of opinions here, Student 2 - From BCU, you haven't said a thing about this

Student 2 - From BCU- I actually think the most important is probably co-curricular however later I will do have a quick say based on the extracurricular. I think for the co-curricular that's quite important because firstly you learn the skills from the education establishment that you at but then you actually applying the skills further on when you like starting a business, I think it's a good starting block for someone however then if they wanted to apply their skills even further, that's when they would go out and do their own research but I think that just sticking with the curricular

and then starting your own business that's a good building block for you to start on and then you can take it further if you wish to

INTERVIEWER: - thank you, Student 5 - From BCU

Student 1 - From BCU - I think extracurricular is probably the most important because you're actually getting hands on and doing it and experiencing it for yourself, I think it's important to do a bit of research to know about your market and obviously see what the other business have done as well but I think extracurricular is probably the most important because you can also get so much from just writing business plan you actually need to experience it and try doing things

INTERVIEWER: - thanks Student 5 - From BCU - Student 1 - From MUBS

Student 1 - From MUBS; I would agree with extracurricular as more of an important one at gaining entrepreneurial skills because you're able to interact and get feedback from different clients if you are an entrepreneur so I would agree with extracurricular or co-curricular where you would gain potentially the skills that you're able to use

INTERVIEWER: - okay thank you are going to go onto another section and that's to do with ecosystems; just to take you back we started with what entrepreneurship is and what the various entrepreneurship skills are and we looked at how you actually acquire these skills whether it's in class or outside the class or a mixture of both of them and now the next section is looking at ecosystem effects and for the purposes of this focus group an eco-system refers to the elements, maybe individuals, organizations or institutions outside you the entrepreneur, you the entrepreneur student in this case; all of these elements that are conducive to or inhibit your ability to become an entrepreneur. Organization and individuals representing these elements are referred to as the entrepreneur ecosystem players or you can call them stakeholders and these are any entity that has an interest, actually or potentially in you being an entrepreneur. For the Birmingham City University students, these are going to be the almost the same but slightly different from those for Makerere University students based in Kampala. These different stakeholders could include things like maybe government and government influences so many things around the policy, around the financial support that is available, the laws that govern the country and the various institutions and so on. They also include the finance and here you talking about the loans you might get to start a business, the banks and so many other things. You talking about the culture, these are the societal norms; you also talking about support systems, any other organizations that support the entrepreneur and these can be NGOs that support entrepreneurs, societies and organization like the British Chamber of commerce or the private sector foundation of Uganda and any other organizations that support entrepreneurship. Then you talking about human capital, this includes high education institutions, skills and level of organization. We also have the actual markets within the space where the

entrepreneur is based; essentially you looking at all these other stakeholders outside of the university or the institution. The question I have is about your point of view for whatever entrepreneurship skills you possess right now, do you think that whatever happened before you came to the university and the extent to which the wider environment in which you were placed, do you think whatever happened in that environment before you came to the university in terms of becoming an entrepreneur was more effective or do you think what is happening within the university right now is what is more effective in giving you the entrepreneur skills. Which of these two is influencing your ability to becoming entrepreneurial?

Student 4 - From MUBS;- personally before I joined university, you know how one of the skills of entrepreneurs is being a risk taker and that involves taking loans to start a business or going into something and investing huge sums of money so for me before I joined University I was like I wouldn't take up a loan to start a business, I would rather wait and collect my money of which you not so certain on when you will raise the money to start up a business; so back then I wasn't an entrepreneur but when I joined Makerere University Business school because it's a course unit, one of the skills a lecture talked about is being a risk taker and identifying opportunities; those two skills impacted on me so much because am planning after university to take a loan to start up a business but before I couldn't because I was scared

INTERVIEWER: - thank you so you saying in terms of action and reflection which is one of the key entrepreneurship skills, you actually acquired that at university as opposed to what was happening before you came to university

Student 4 - From MUBS; yes

INTERVIEWER: - alright Student 1 - From MUBS, you can go ahead

Student 1 - From MUBS; before coming to university we would do things casually, you would setup a business but barely take records and treating people in a certain way but after going to University you realize that at after going to university, you enlightened about proper record keeping and how it would be impactful and helpful for your business to grow and how you can use it as a resource to actually look out for loans or organize resources within your community any other sources. So before University you have a little knowledge and skills but you don't know what it actually means but then if you go to University the knowledge you get adds up and increase on your efficiency and how you do business, how you interact with people, how you set up your customer base and how you able to first track them so I believe there are two different scenario as of doing business before; you barely keep records, you don't want to pay taxes and keep something away but when you go to University you will learn more about the systems, how they can be helpful and how they can grow your business

INTERVIEWER: - thank you Student 1 - From MUBS, I just wanted to double check, there is actual facts that you learn from the University and that's is well noted but what I wanted to focus on is the actual skill not the content like that you must pay tax and all that, are you also saying that the skill that you have picked up from university is things around critical thinking and analysis as a skill you have picked up when you went to the university is that correct

Student 1 - From MUBS;- yes that's correct because you may have it before but it's not so vivid that it doesn't actually make sense that you're supposed to critically look at certain things but after getting the knowledge you need to make sure that you need to have a proper list of your clients, track them and critically look at the business and see how you can grow the business further

INTERVIEWER: - okay, thank you. Student 4 - From BCU ?

Student 4 - From BCU;- before coming to University when we were in sixth form because I went to sixth form, we knew entrepreneurship was just basic information and I feel if I didn't come to university I would not know the depth of how much it goes to . When you study entrepreneurship and what comes with it. The knowledge when you do the course at University helps you learn a lot of stuff like extra skills about the customers about the demand how to set and what kind of things you would need like finances and what kind of digital stuff you would need but if I had not come to University I would not know that so I feel it's very important because that helps you a lot to shape your mindset towards entrepreneurship

INTERVIEWER: - alright thank you very much, Student 5 - From MUBS?

Student 5 - From MUBS; - I must agree with the previous speakers, I also believe before university, you do have the basic knowledge of entrepreneurship and you may have a few of these creativity skills, you may be very innovative because by the time you come up with an idea to start a business we believe you have taken up an initiative so when you get to the university it widens your view of how you could actually dig deep and more efficiently manage your business. It also gives you an element of wider opportunities like in Kampala at Makerere we have an entrepreneurship center and the moment you come up with a business idea you could go there and consult about your idea and then they open you to the business world, You can find a few people that already invest in your idea and push and help you grow wider and expand on your ideas. I believe that it also gives you a wider market because by meeting more people at the university, the first customers that you going to get are your friends for instance if you selling a certain commodity and tell these people you studying with it gives you a wider market because they would support your business if it's actually genuine so I believe University has very much impacted on entrepreneurship

INTERVIEWER: - thank you very much, Student 5 - From MUBS

Student 5 - From MUBS;- so before I came to the University, I studied entrepreneurship but the way I got the information from the teachers, is the way I left it but when I came to the University, I remember during our entrepreneurship class they told us to come up with our own business and that was supposed to be our course work so we took initiative of starting up a business and it was of sweets and while selling sweets, we learnt some entrepreneurship skills for example communication skills because we used to move from class to class, also being creative because we went and bought biscuits after the sweets and we went on and on so we literally generated ideas in that we are creating more and more plans so I believe at University we did get chance to acquire more entrepreneur skills than back then

INTERVIEWER: - thank you Student 5 - From MUBS, interesting to hear your stories about sweets and biscuits. Yes Student 5 - From BCU over to you

Student 1 - From BCU- I feel like the university opened my eyes to the opportunities to getting funding and other things but overall I don't think it really encouraged me to be more entrepreneurial, I think with the subject I study they've just been like promoting getting jobs in that field and I think to do that is easier than to start a business so overall I don't think they've really encouraged it that much

INTERVIEWER: - that's an interesting perspective, Student 2 - From BCU ?

Student 2 - From BCU- I just want to make a point that I think the university gave me more skills for entrepreneurship rather than before not specifically because of the university's curriculum but rather the fact that at university I was surrounded by people who also have the same mindset who wanted to be entrepreneurial like me and then I could reflect on them and on the skills that they had and improve. So, for example for me being surrounded by other people who also are into entrepreneurship I was able to communicate better and I would say that improved my communication overall the university is important for improving your entrepreneurship skills not just because of what you've taught but also that you surrounded by people who have the same ambitions. You can also get online like you mentioned before to an entrepreneurship society but the thing is that it's just looking at screen that's not actually physically being surrounded by people who also have the same mindset which then improves the skills is better than just reading, that's my opinion

INTERVIEWER: thank you before you go, if you were in a class where maybe you studying business or let's say studying literature do you think you would still be able to get those entrepreneur skills because of the university setting or are you saying its just because your studying business and therefore everyone in your class is equally studying business and that's how these skills rub off of you

Student 2 - From BCU- yes I think its more the second point that you made at the fact that we all want to be entrepreneurs and so we're all learning off each other because one may already have a business began right now and myself might not, but we can learn off that person if they are willing to sell at their contribution in class they might be more knowledgeable than us and then we can use that to then reflect on our own skills and improve

INTERVIEWER: - thank you very much any other response regarding what happened before and what is happening now

Student 1 - From MUBS; - yes Doctor I will give a brief background about my internship journey before I joined the university. At home my mom opened up a sugar cane juice business for us me and my brother and that was during the vacation, that's is senior six so me and my brother used to go in the market and sell the juice, we would make the juice from home and take it to the market and sell to the clients and by that time I knew that business was all about making money to a focused group or to small clients because we used to focus on a small number of people in the market and things changed when I joined university I got more knowledge that as an entrepreneur, you should expand your business but you can't do it without having knowledge and ability to do so. For example at university we went deep into understand what is a business plan and currently I know how a business plan looks like, then a business canvas model and how to expand the market and as I speak now we managed to convince my mom to have the business go on to kampala town and open up a branch and we are running a branch in Kampala and supplying juice to people in Nakasero market, thank you very much

INTERVIEWER: - that's a very interesting Journey for a student thank you very much. **Student 5 - From BCU** is also saying that she concurs that the University simply shapes ad helps us understand entrepreneurship better and how to go about the concept.

Alright onto my next question, we have been talking about what was happening before you came to university and how that affected the extent to which you got these entrepreneurship skills and

Student 1 - From MUBS's examples is a good one.

The second question is looking at do you think was is happening at the university right now is more effecting in giving you these entrepreneurship skills or are you affected mainly by what is happening outside the university in the wider entrepreneurship eco-system because you interacting with it any form so before we were discussing what happened before you came to the university but now you are in the university and there are something happening in the university like your curricular and everything whether they are setting you up to go and start a new business as part of your studies; so what is happening in the university right now compared to what is happening in the university right now and I would be interested to hear particularly from Makerere University student who maybe

part-time and interacts with the outside world match more than the fulltime students, do you think what is actually happening in the university is more effective in giving you these skills or what's happening outside the university is giving you more of these skills. Let me start with Birmingham University students so that we get context because it will be very helpful. Student 2 - From BCU or Student 5 - From BCU, or Student 4 - From BCU

Student 1 - From BCU- yeah I think recently with one of my modules I had to write a business plan so that was a good experience but I think overall it's what has happened outside of University that has inspired me because like my mum owns her own business and I have a family that have started their own business and stuff like that so I have seen it from that perspective and that has influenced me a little bit more because I have actually like pictured what can happen

INTERVIEWER: - thank you very much, Student 4 - From BCU do you want to go next?

Student 4 - From BCU;- yes I was going to say that although university is giving us the information and the resources that we need, I feel that because we got that from university you are more open and notice more stuff and you want to help more especially because in university there are from different countries you meet like different types of people and it helps you understand their perspective and what they have been through for example some people might own business; it's like it helps you to take a step further however the influence of the outside world is higher than the influence from university of like if you want to pursue the career yes the University does give you the main information you need to know to do that but the influence from outside I think is higher than inside

INTERVIEWER: - thank you Student 4 - From BCU, those were good comments, Student 2 - From BCU
Student 2 - From BCU- Hi my name is Student 2 - From BCU so based on my personal experience am just going to say that the university has given me more of the skills rather than outside where I started because I come from a background where am not surrounded by entrepreneurship so the only way am surrounded by entrepreneurship is when am at the university so apart from university the only way I can learn about entrepreneurship and I can develop my skills is really just what I see on the news so personally to me I think that just being in the University and being taught the skills was more effective

INTERVIEWER: - thank you, I think we now go on, remember we talking about what's happening in the university verses what's happening outside the university right now so remember that ecosystem all these things that are happening outside the university banks, government policy, support groups and so on compared to what's actually happening within the university in terms of the teaching which is the curricular, co-curricular or extracurricular, which of these two worlds is equipping you with better entrepreneurial skills

INTERVIEWER: - who else wants to have a go, Makerere students??

Student 5 - From BCU;- I already agreed with one of the points so I don't need to say anything

INTERVIEWER: - okay, Thank you, let's go to MUBs students, Student 1 - From MUBS or anyone else who wants to have a go

Student 5 - From MUBS;- yes basically I believe at university we do get the knowledge and of course the confidence to go and take on these opportunities about I have taken on a few ventures into entrepreneurship and it's a little bit different out there because when you are at university it's a smooth line, it's basically learn this and that ,, I know that so I can do it but there're very many elements outside in the other ecosystem so it challenges you a little so you must be more than diverse to take on the ecosystems outside so I believe there is a lot to learn outside and university just prepares to put you there, it gives you the understanding but it's quite different outside

INTERVIEWER: - so you saying what happening in the university might give you the hard nuts and bolts but the actual skills you likely to get them or you are being influenced more by what's happening outside the university

Student 5 - From MUBS; yes I am

INTERVIEWER: - Okay Student 5 - From BCU you wanted to make a point

Student 1 - From BCU- yes I was just going to follow that point, maybe the universities could be more practical instead of just telling you to write a business plan maybe come up with modules where you actually do it or help out other businesses or something like that

INTERVIEWER: - okay so you talking about co-curricular or extracurricular methods as opposed to curricular that those are likely to be more effective

Student 1 - From BCU- yeas just something that's a bit more practical that will give you more hard skills rather than just searching for research online and talking about it text they could offer such

INTERVIEWER: - okay thank you, Student 2 - From MUBS?

Student 2 - From MUBS;- I believe at the university you prepared for the real business world and that's being given knowledge, being given valued information about what is happening in the real business world and that cannot make you more effective or successful when you come outside unless when you are exposed to the external factors for example when I joined Nakasero market, to be effective in selling I had to first engage the people who had started the same business in Nakasero so I got the experience through that interaction and this boosted my ability to push forward the business so more effectiveness is got outside the university

INTERVIEWER: - thank you Student 1 - From MUBS, Student 3 - From MUBS?

Student 3 - From MUBS;- my view is that I think the one who interacts with the outside world is in a much more better position because they are exposed because I have had an instance where after

getting all the material from school and designing the business canvas models and all that, you would go out and interact with the clients and try getting feedback from them and try remodel the business canvas model to suit their needs so I think someone who interacts with the outside world is in a much better position to get ideas, skills than one who is inside as a fulltime student

INTERVIEWER: - okay, any other comment before I move onto the next section because the next might apply to only MUBs students but I would also want to hear from BC students as well, some students who are part-time obviously interact more with this outside world much more than the fulltime students. I should disclose as well I have attended MUBs as well even though I was a fulltime student I remember the walls of the university were porous and I was going home whenever I wanted, I could go do my part-time work in the evening so I was interacting with the outside world even though I was a fulltime student so I wanted to find out does it matter that you are a fulltime student in terms of how you interacting with this outside world because as we have establishing from this discussion that the university environment will equip you but there is more effectiveness outside of the walls of the university; that from an entrepreneurship skills perspective, what is happening outside the university is more effective in giving you those skills and is it fair to say that part-time students are likely to more entrepreneurial because they interact with this outside world more or does it really not matter because even fulltime students are also interacting with this outside world in your own way; any part-time students here?

Student 2 - From MUBS - am not a part-time but is it okay if I answer first

INTERVIEWER: - go ahead

Student 2 - From MUBS - I would say it depends on a person and time management because you could be a part-time student and not be as much as time effective as someone who is fulltime so it highly depends on them and how they are able to control their time management

INTERVIEWER: - thank you for that interesting perspective Student 2 - From MUBS and for purposes of transcription I just want to confirm Student 2 - From MUBS you at mubs right?

Student 2 - From MUBS- yes I am

INTERVIEWER: - good, anyone else on that matter, Student 5 - From BCU, Student 2 - From BCU, what are your thoughts

Student 1 - From BCU- I agree with that last point it depends on the person and mindset and how they manage their time and I think that's a very good point

Student 2 - From BCU- I also agree because am also a fulltime student but then because of time management I also do get time to do my own research when I want to so I don't think you limited because you are a fulltime student

INTERVIEWER: - okay thank you, Student 1 - From MUBS

Student 4 - From MUBS; - Dr. this is Student 4 - From MUBS

INTERVIEWER: - yes Student 4 - From MUBS go ahead

Student 4 - From MUBS; - according to me I think it doesn't affect you in any one way or the other, I think its according to someone's ambition and knowing what they really want to achieve in life because it's not about being a fulltime student that you limited at knowing certain things or when you a part-time student you have the time to get out to know everything that you want to know, I think it's all about your mindset. During my internship I was a part-time student because I could go for internship and come back to campus but then I felt it's the same thing like a fulltime student its actually about you and how you set your mind to learning certain things and to get what you want

INTERVIEWER: - thank you, Student 1 - From MUBS, do you want to say something

Student 1 - From MUBS; - yes Doctor I can agree with most of the speakers, now the university is not so limited that you are a part-time student and you are supposed to be all the time in school, its basically about mindset and goals because the people who have different goals and aspirations and they want different things and they actually aim out for them. Then time management is also a skill and I can agree with most of the speakers because here at university I think its now more open and not that fulltime students are restricted to go out or that every other time you supposed to be in school and on websites doing research you can go out so its mindset, time management and the ability to do everything thank you

INTERVIEWER: - thank you Student 1 - From MUBS your hand is up

Student 1 - From MUBS;- thank you so much Doctor I can give a clear example like in Makerere university the teaching model is flexible, it allows a student to study as they conduct a business outside the university for example at Makerere a student has only four hours for class depending on his/her choice for example a student might decide to study in the morning from 8am to midday or from midday to 5pm or from 5;30 to 9;30pm. Personally I was studying from 5:30 to 9:30pm and that means the remaining hours I was ready for the business so it's all about mindset and the goals, what do you want to achieve after university because my goal was to graduate with the knowledge but also at the same time running a business so it's all about the mindset and the end result you want

INTERVIEWER: - thank you very much Student 1 - From MUBS, I think there is a consensus now that its shouldn't matter whether you are part-time or student or a fulltime , whatever is affecting you outside of the higher education institution or the university is still more effective than what's actually happening in the university in giving you the entrepreneur skills. Now I want to go to another point that was raised in the previous interviews and studies about the eco-system if you remember, I did mention that the ecosystem includes very many things, policies, finance and culture

was one of them. In some of the questions we have asked before, some of the students believe that culture is really very important and that actually the most important factor in the development of entrepreneurship skills because it shapes people's attitudes towards entrepreneurship; for MUBs students particularly, to what extent has your culture been responsible for your entrepreneurship skills, and also it would be very helpful if you could the region were you come from whether it is the South West, North, Central if you know the districts you could go ahead so that we look at these cultures at the deeper level then I will come back to BCU students after that so the question is at what extent has culture been very important in giving you these entrepreneurship skills or do you think it's a really any more important than the markets or governments policy or it has not been of any effects at all, over to you MUBs students who wants to go first

Student 4 - From MUBS;- according to me I would say that culture doesn't have a contribution towards my entrepreneurship skills for example am from the central and we have that aspect of respecting people so when you go out to make a business you should know at the back of your mind that you have to respect your customers that you can probably attract more people into your business or something like that so for me it contributes a lot to the business and then coming back to the university, the cultural aspects at the university it just builds on what you have come up with from your grassroots because at university they just tell you how to manage the business and even though they will tell you about respect for the customers but you have to come with it from the roots and that how culture has contributed to my entrepreneurial skills

INTERVIEWER: - thank you. Student 1 - From MUBS

Student 1 - From MUBS; - I come from the eastern and I wouldn't say that culture has had an impact or not because I have not been there physically to be able to observe how it impacts on the entrepreneur skills of other people but for my perspective I have seen things here in central, I can probably try to bring it back to religion or something like how the Muslim religion is like you don't probably rear things that are contrary to the religion and then that's how it probably builds up and its integrated in people that they should do business that is contrary to the religion but then for the culture, what I have also observed here in the central probably I can talk about the Indians in Kampala or in Jinja they pass on these skills to their children at a young age, they expose you and see how business is done and this is how you able to learn even from a tender age. But you need to have a business mindset which is different from Africans, they are not allowed to go into business or to start learning from it but I think it's now changing and they are now knowing that they need to pass on these skills to their children even at a young age, its changing over time but I think I haven't observed so much of a bigger impact that culture will actively contribute to your business entrepreneurship skills

INTERVIEWER: - thank you very much, Student 5 - From MUBS

Student 5 - From MUBS;- thank you very much Doctor am from the North, my take on culture is that in Uganda currently we are very rich in culture and being from the North and studying in the central a little bit narrows the cultural influence that I have from home because being that am in the central, am going to meet very many other people from the West or from the East and at the end of the day you going to realize that you must embed each and everyone's cultural beliefs so that you don't offend your clients in anyway so I believe there is an aspect of culture but it also depends on how much you have taken on as an individual because if am from the North and I choose to exhibit only and only the things I was taught back home and still chose to take on business strictly on those elements, I may in some way or the other not be able to cover for my clients form the East or from the Central and at the end of the day yoh realize that with culture you must be able to be diverse and know something from everywhere and be able to handle your clients in a way they are extremely comfortable so I believe culture as an element is more or less very useful but it does not tie you down to particularly your culture you must be able to understand and respect each and every culture and appreciate it so that you can effectively manage your clients

INTERVIEWER: - good thank you - Student 5 - From MUBS, Student 5 - From BCU and then I will come back to you Student 4 - From BCU

Student 5 - From BCU(BCU); -i think culture is very important for example in most ethic minority in the UK, if you come from an ethic minority in the UK you know you have to push yourself a little harder compared to you white counterpart for example am Ghanaian, I was born in Ghana and I moved to Italy after birth and then moved to the UK so I didn't know much about my culture in Ghana which is Africa but when I went back during holidays when I was younger and I was able to see, of course in every country there are cities, developed parts and the more undeveloped parts in the third world countries and when I entered these places in my home land, I realized why so many black African and black Arabians for example raised in Africa or third world countries that came to first world countries like the UK or the US are so pushy at being entrepreneurs because they know where they come from they know that If they don't push themselves as hard as others, they know that the place they will come back to is not favorable place so I think culture is very important

INTERVIEWER: - thank you so much, yes Student 4 - From BCU?

Student 4 - From BCU;- before I say something about culture I feel it's more about the development of the country because the more developed a country is the more culture bends towards the leniencies because you're surrounded by more people who you can look up to or that will help you move forward, so if the country is more developed you have more resources and the culture generally just becomes linear because it's kind of normalized. I come from Pakistan so obviously it's

not as developed as for example England so there is not enough of resources to start off with and when you do try to find away its more harder for you to go out of your way and you have more criticism in a way however if I did the same thing in England it's like more people are open to this because it's more developed again and there's more things I can find out. For example going to University, it's easier for me I can find resources even if I don't go I can find resources even if I don't go out and find courses and people so I feel like culture makes a big impact in that. I don't know who mentioned this but I heard at the start something to do with religion I feel like its not in my opinion its more culture than religion for example countries like Dubai, they have different religions and more people are Muslims than England but because they are both developed countries they are both high up but let's for example compare England and Pakistan both of them different religions but because of the development it's like the culture is playing a bigger role in there. So feel like for example in my culture it's harder for us to come forward and like go out of our way but because of that it also makes us strong because we have been through the failures

INTERVIEWER: - that's a very good point around culture and trying to separate it from religion but also the other point you make is that because of the development level of the country, it exposes you to the kind of hardships that force you to be entrepreneurial just so you can make it and it's also what Student 5 - From BCU was talking about that the background forces you to be aspirational and therefor entrepreneurial is that what you saying Student 4 - From BCU

Student 4 - From BCU; - yes I am because, one thing I forgot to mention by having less developed countries gives you more opportunities to become an entrepreneur because there is more work that is needed to be done and I feel like once you figure that out you tend to be more successful in my opinion and once figure out your resources but I agree with that that's what I was exactly trying to say

INTERVIEWER: - okay thank you, Student 5 - From BCU, do you concur ?

Student 1 - From BCU - yes I think culture is extremely important because am mixed race my Dad is from the UK and my mom Is from Liberia and I have noticed that both my parents have business by with my mom's side, a lot of her friends and family have had business or they have a side hustle or currently have a business I think it's something that's quite big in their culture. On my Dad's side I think less of them have businesses and stuff and even when my mom moved to the UK instead of getting a job she decided to start her own business also so I think culture is a big aspect over thee and also I think in certain cultures having a business can sort of be like a social status thing to show that you own something

INTERVIEWER: - thank you Student 5 - From BCU, anyone else that wants to make a comment on culture, that hasn't had a chance to do so

Student 5 – From MUBS: I don't think culture shapes entrepreneurs because if we were to go back in time and consider the women, they were more of caretakers of the homes and then men would go out to provide so I don't think that has had an effect on women being entrepreneurs today so I don't think culture has really has much of an effect maybe if talk about the regions and origins

I don't think culture shapes entrepreneurs I think it only comes in when we are talking about clients and how to deal with the different kinds of people otherwise I don't believe culture shapes entrepreneurs

INTERVIEWER: - thank you, very good observations. Now am mindful of the time and I would want to go the other second last questions and this is to do with digital and social media. Increasingly, very many people especially students are spending a huge amount of time on social media, some students have said social media has played a significant role is shaping their entrepreneurial mindsets; some have said that they follow successful people and companies on social media and the learn and pick skills from and I think these are called influencers based on their success stories. If you had to compare it with what happens at the University and what happens outside of the university, to what extent has social media or the internet been responsible for your acquisitions of these entrepreneurship skills because now we agree looking at what's happening at the university, what's happening outside the university but then there is this other element of the internet which is everywhere whether you are the university or outside of the university, to what extent has social media or the internet been responsible in giving you these entrepreneurship skills; and do you think it's more effective than what's happening at the University, do you think it's more effective than what's happening outside in terms of things like culture and how you interact with the rest of the world; what are your thoughts on this

Student 3 - From MUBS- thank you Doctor, for me I think to a higher extent, social media has helped in the growth on the entrepreneur skills because there is a high number of people on social media and then with also the influencers plus the other companies; you get to learn different things on how to put your business out there for the people to view what you selling or what you're doing. Then also the cultural bit comes in because you not just going to chat with arrogance or something, Someone will still tell that this person cares through the way you're responding to the questions the customer has so the culture bit still comes in but you also learn through the influencers and how the other people have grown their business via social media, what are they using, how do they run their campaigns and how they put out their messages for people to understand what they are selling. I think to a higher extent, yes the social media has really helped in the entrepreneurship skills

INTERVIEWER: - thank you Student 3 - From MUBS, who else wants to have a comment on social media or the internet in general compared to what's happening in the university in terms of

curricular, co-curricular and extracurricular and in terms of what's happening outside, Student 1 - From MUBS

Student 1 - From MUBS; - the internet has played a big role especially in the entrepreneur world for example as a business person, the internet enables you to produce creative sharable content to the audience since you have access to various social media platform, you are able to post, advertise your business and this captures a lot of attention from the people but also through the internet you have an opportunity to engage with the customers and find out what people are saying about your business. For example if you do posts let's say on TikTok, twitter, there is a provision where you get feedback from you clients and this quickly enables you to make the necessary changes and improvements on your product or business and also on how you can handle different kind of customers. Then also the biggest bit of it is that you are able to get quick feedback and you do the quick response and the end result on this is that you can build a customer loyalty in just a short period of time so social media has really played a big role in my business

INTERVIEWER: - thank you Student 1 - From MUBS but I wanted to keep the discussion not just on business generally but on entrepreneur skills we talked about earlier, To what extent has social media played a role. Student 2 - From BCU over to you

Student 2 - From BCU thank you I want to comment regarding the social media aspect, personally from what I see from my feeds on social media I follow quite a of social media accounts specifically small business accounts and have noticed the recent trend currently that people have actually started making E-books on how to actually start a business and I actually bought one of the E-books myself and in the E-books they actually highlight the key skills that are required to actually start their own business and so I think you can get just as much knowledge as you need for entrepreneurship but you can get the same amount of knowledge on social media as well as University. University is all in one place well as on social media you see multiple aspects such as the E-books they publish or the posts and how they interact with their followers and engagement levels. I think it's quite important especially now days that you should turn to the internet to also see what other people are doing and reflect on your own skills

INTERVIEWER: - thanks Student 2 - From BCU

Student 4 - From MUBS; - according to me, social media has greatly contributed to the development of entrepreneurial skills. I think people advertise different business ideas, different opportunities and business and from here people are able to camper these businesses and come up with an idea. I f I can say, people can recognize opportunities which is among the entrepreneurship skills and the other thing on social media platforms we are able attain skills on analysis and probably the critical thinking because you can find someone has commented on another's ideas and maybe they are

bringing it in a more better way that that person had developed it and this give someone an opportunity to build on those ideas so that they can come up with something better.

INTERVIEWER: - thank you very much

Student 1 - From MUBS; - I believe the internet has really helped the entrepreneurs to develop these entrepreneurship skills of being innovative and using the different skills because you find many entrepreneurs have to make their own content, they have to market themselves and have to open social media sites for their products and that also drives growth. I have also seen some influencers like Amos Wekesa, every Friday he tells people that if you have any business idea, just post on my page because my followers maybe your clients and this drives growth of entrepreneurs. So I believe the internet has done greatly to improve the skills because can be able to learn new skills and use different apps to develop products and this improves their skill set

INTERVIEWER: - thank you Student 1 - From MUBS, Student 5 - From BCU

Student 1 - From BCU- I was just going to say that I think the internet and social media has inspired other people that weren't entrepreneurs but have now become because they can see what other people have done which I think has developed more entrepreneurs from that and as well as that obviously would marketing help so much too

INTERVIEWER: - okay, who else what's to comment on social media as we try to wrap up. And maybe let me put it this way I think the general consensus is that you all agree that the social media or the internet has had a significant impact on making people want to be entrepreneurial through giving them information and so on but in terms of actually getting the entrepreneurship skills because remember we have been looking at what is happening in the university in terms of curricular, co-curricular and extracurricular, what's happening in the wider ecosystem outside and now we are looking at this third element which is the internet, of the three which one did you think is more effective in giving you the entrepreneurship skills and why and then we can wrap up based on that particular question

Student 5 - From BCU; - I wanted to ask which are the three options again

INTERVIEWER: - the three options are what is happening in the university in terms of you getting the skills, remember we started with curricular, co-curricular and extracurricular activities that are happening within the university, if you park that one group and then the other one is what is happening outside the university in the wider eco-system and this is your family, the banks, government policy, culture and then we have a third element which transcends both outside and inside the university called the internet and social media, of these three domains which one do you think is most effective in giving you the entrepreneurship skills that we started with at the beginning

Student 5 - From BCU: I think definitely social media and outside factors like family and what's happening in the government, I will go with those two options

INTERVIEWER: - okay, Student 4 - From BCU

Student 4 - From BCU; -I agree with Student 5 - From BCU but if I can just add something; with social media it can be fabricated, you really know if it's true or not while with University is more likely to be true because the studies are done yet social media is a lot on the dark side is hidden and only the bright side is shown so with social media it's rare to see the wrong and you only expect the good for you not ready of the bad however University and real life experience is like you can look at both sides and prepare more for if anything is to go wrong. I do business management and we had to do a module for entrepreneurship and we looked at the dark side and I realized that in the whole module, we have been looking at the positive and every stuff online was very positive, not enough negative so I think instead of online am going to go with the University because in my opinion I feel like online things can be fabricated and might not be true and may not prepare you enough to actually do what you want to do

INTERVIEWER: - okay who wants to go next on the three options; University, internet and the eco-system

Student 2 - From BCU- I just want to make a point on what the previous person has said the fact that the social media can be fabricated, that's true but you can also consider all the other factors to have some sort of biased towards them so I think it's down to the actual individual to base on what they believe is right and wrong, but I still think the university gives you the most amount of knowledge for the skills for the fact that they have gone and looked at all the articles and believe which ones are true to life and which ones may be a bit exaggerated

INTERVIEWER: - it's a very good observations that universities tend based on their expertise to curate and go through all that noise, thank you very much, who wants to go next

Student 1 - From BCU- I think for me it's the eco-system as the top factor; I think social media can be quite inspiring and you can see what people have done but at the same time you don't know if its necessarily real and what truly happened in the background like what they are not showing you so I think for me it's the eco-system

INTERVIEWER: - okay thank you Student 5 - From BCU

Student 1 - From MUBS; - I would take the ecosystem because that's where everything is impacted; where the different forces are acting at the same time so I believe the ecosystem because that where you will get the different impact and reactions from the government where you need to abide by the laws, you need to balance with the customers on the other so I think the ecosystem is vital in acquiring these skills

INTERVIEWER: - Thank you, Student 1 - From MUBS

Student 2 - From MUBS- I agree with Student 1 - From MUBS there is nothing extra I would like to say

INTERVIEWER: - thank you Student 2 - From MUBS, who is next I would like to hear from everyone on this particular issue

Student 5 - From MUBS; - I would also agree with Student 1 - From MUBS, I think the eco system gives us much more impact because to an extent the rest of our alternatives come from the ecosystem. We have the content to share and I believe very many people on social media get from the outside world and from every other factor that influences them outside then they come through and share it on social media so I will go with the eco-system

INTERVIEWER: - thank you Student 5 - From MUBS, who wants to go next so we can wrap this up
Student 4 - From MUBS;- I would also support my colleagues by saying that I will also go with the eco-system as Student 5 - From MUBS said that those people who post on social media platforms get all these things from the eco-system and that's right because if am to remember the co-curricular learning equips us with both theory and practical skills and I think that's good enough for entrepreneurs because we need theory and skills to set up our businesses

INTERVIEWER: - thank you, who is next

Student 5 - From BCU(MUBS);-I believe the eco-system is vital

INTERVIEWER: - thank you, Student 5 - From MUBS

Student 5 - From MUBS; - I will go with the eco-system because literary I don't agree with social media, people tend to put false information on the social media and in most cases they get that information from eco-system

Student 1 - From MUBS;- I believe the eco-system has the highest impact to entrepreneurship skills because we are much exposed in the real business world

INTERVIEWER: - okay, who hasn't had a chance, Student 1 - From MUBS have you said anything

Student 1 - From MUBS;- yes Doctor and I went with the ecosystem

INTERVIEWER: -,okay and Student 3 - From MUBS, have you made your comment

Student 3 - From MUBS- well for me I would not say social media I would say the internet because I have leant a lot on YouTube that I wouldn't have gotten in school or University

INTERVIEWER: - okay so between the internet and the ecosystem, you would still prefer the internet?

Student 3 - From MUBS- yes

INTERVIEWER: - okay, onto essentially the last question, is there any aspect I may have excluded that you think has been important in making you acquire these entrepreneurship skills that you possess,

is there anything other than these three that I have looked at that you think is very important that maybe I should look at it at some point. Just a No or a yes and if it's a yes you point it out; am going to call you out so that we wrap this up, Student 3 - From MUBS

Student 3 - From MUBS- No

INTERVIEWER: - Student 5 - From BCU?

Student 5 - From BCU (BCU);-I think psychological factors on oneself, like the way people think individually can also impact if they want to be entrepreneurs or not

INTERVIEWER: - okay thanks Student 5 - From MUBS

Student 5 - From MUBS;- I believe everything has been embed in your discussion

INTERVIEWER: - thank you very much, Student 1 - From MUBS

Student 1 - From MUBS;- I do believe everything is okay, those are the factors

INTERVIEWER: - Student 4 - From BCU

Student 4 - From BCU;- I just wanted to say that I agree with Student 5 - From BCU that psychological factors are very important because I feel like the environment around you and your mindset; you have to have some kind of a mindset in that sector for you to develop if you are to become an entrepreneur

INTERVIEWER: - thank you very much Student 4 - From BCU, Student 2 - From MUBS

Student 2 - From MUBS- I do agree with the other people's perspectives I have nothing to add

INTERVIEWER: - that's fine, Student 1 - From MUBS

Student 1 - From MUBS;- I would agree with most of the previous speakers; just a little I would say a mindset of an entrepreneur contributes more because he is able to adapt in different situations and I think it would also be helpful for the person to develop an entrepreneurship mindset

INTERVIEWER: - okay thanks Student 1 - From MUBS, anyone else who hasn't given their thoughts

Student 4 - From MUBS;- personally I also think someone's personality partly contributes to the development of the entrepreneurship skills of a person

INTERVIEWER: - okay thank you

Student 2 - From BCU- I just want to mention that maybe entrepreneurship skills can confirm as well, we have spoken about university aspect of it but he lecturers don't necessarily mentor one to one, I think if you added mentoring one to one onto University and on top of what you learn then I think that's when you get the best grasp you possibly can about the skills required because you learn and then you see one to one

INTERVIEWER: - that's a very good observation so a bit like co-curricular; what you started in class but over and above that, have some other layer of mentoring and guidance

Student 2 - From BCU- yes and it just doesn't have to be anyone from that specific institution but you get some wishes as well were you get to go and do a one year's work with someone; that's kind of not curriculum but if you go and do that then you get experience and its not necessarily going ahead and starting your own venture, it's just you and observe what people current doing, what skills they are using for their own business and then after that you can finish University and then you can go off and start your own business because you have leant the skills and seen them applied face to face

INTERVIEWER: - Okay, thank you very much, I think we have come to the end of the questions am really sorry they have taken this long but it's been this long because you have all had interesting answers to give and I like the variety of the responses and the different perspectives and because of that the discussion has been more interesting and we have taken longer than I would have hoped, I do apologies for that but I want to ask one question, would you be available for any follow-up questions if something comes up deeper in terms of analysis and I wanted to ask maybe one other question, this would be on a one to one basis. I think I included that question in the survey that I shared but it will be helpful for me to confirm, just a simple yes or no would be helpful if don't mind being contacted at some point

Student 2 - From BCU - would the form of contact by email or would it have to be Microsoft teams

INTERVIEWER: - it depends on what the issue is it might be just simple email, it might be a phone call or teams, I don't know it depends on the what it is

Student 2 - From BCU- just because starting next week I won't be in the country and not taking any form of technology where I can get Microsoft teams, so it has to be an email if I have to do a follow up question

INTERVIEWER: - that's fine am very flexible Thank you, so I take that as a yes

Student 2 - From BCU - yes

INTERVIEWER: - okay Student 4 - From MUBS

Student 4 - From MUBS; - yes for me I will available for anything whether a call or anything I will be there

INTERVIEWER: - okay thank you, Student 5 - From BCU

Student 5 - From BCU (BCU); yeah am perfect, it's fine

INTERVIEWER: - okay

Student 1 - From MUBS; - yes Doctor I do agree am available anytime

INTERVIEWER: - okay, thank you

Student 1 - From MUBS; - Student 1 - From MUBS here and yes I will be available

INTERVIEWER: - okay good

Student 5 - From MUBS; - its Student 5 - From MUBS, yes I will also be available

INTERVIEWER: - thank you Student 5 - From MUBS. Okay for the rest given time, you can send me an email or message me through the channels we got in touch. One last but important issue is to do with your vouchers. Thank you very much for your doing the focus group and now that the focus group is done I will collect all this information and submit it and it's based on this information that I will process your vouchers; the value for the ones in UK is slightly different from the value of the one in Uganda but all getting the same value equivalent so to speak. I will be in touch with each and every one of you guys, the process normally takes maybe a week or a week and half because of the exams and all sorts of things going on, I will process it as soon as possible but I have all your details I have all your telephone numbers for all of you in Uganda so you will be receiving this by mobile money and I will be in touch with you the UK team I think they normally the vouchers come with a code which you can redeem on amazon but thank you very much for sparing time; if you have any questions you have all my details you can send me an email.

END

D. BCU LECTURERS FOCUS GROUP 1 – VERBATIM EXTRACT

BCU LECTURER FOCUS GROUP 1:

Interviewer: Dennis Aguma

List of acronyms: L1-lecturer number one, L2-lecturer number 2, L3-lecturer number three, L4 – Lecturers Four; xxx-not clear

BEGIN Transcript [0:00:01]

Dennis: So thank you all very much for; one accepting to help me out to do my ah Focus Group uhm as you know my name is Dennis, Dennis Aguma I'm working on ah a research project under the supervision of ah Dr. Susan Cissy and Charlotte Keri ah both of with in this department. My study is looking at entrepreneurship eco-systems and ah their effectiveness on different types of entrepreneurship education so essentially it's around entrepreneurship education ah entrepreneurship skills specifically but I'm trying to understand the way the extent to which the environment or entrepreneurial eco-systems in terms of entrepreneurs is impacting the effectiveness of different entrepreneurship education.

So you've been invited to participate because you either teach entrepreneurship or an entrepreneurship related module ah either now or in the past here at BCU and just to ... for ethics purposes the research is the study is voluntary so if you feel like you want to drop off at any point for whatever reason just let me know and I'll stop the interview.

The main study is taking place here and ah Makerere University which is in ah Eastern Africa in Uganda, ah I'm looking to collect data from lecturers teaching entrepreneurship ah students studying entrepreneurship both first years and third years to try and see ah if there are any newest differences in terms of their entrepreneurship skills those between first year and third year and depending on what they find in due course I will be engaging business managers essentially people from the industry to translate and make sense of the findings I have.

So the duration of this is estimated to be around sixty minutes and I'm hoping that I'll try and speed you up so that we can finish on time because I'm mindful that you don't have too much time. Ah from data protection point of view uhm obviously this has received ethics approval so you know from BCU that I'll be following strict data protection ah the procedures ah and whatever answers you give me will be held with the strictest of confidence ah you will not be identified by name or anything so feel free to give me ah as much information as you possibly can. Ah in fact subsequent to the ethics side of data protection I'll not refer to you by your names I'll just give you numbers so

you are lecturer number one lecturer number two, lecturer number three so when you answer the question for my transcription purposes it will be helpful if you say lecturer number one this is my response but I'll know who lecturer number one is yeah, so lecturer one if you could please, ah identify yourself in terms of gender the subjects you teach and the year of study taught and whether that's full time or part time that would be helpful. So lecturer number one please.

0:03:13

L1: Okay, ah Gender will be male, ah subjects taught ah I've got ah two at the moment one that we've just finished and one that I'm currently teaching ah the level, level five innovation management undergraduate study and there's international operations and innovations which both have entrepreneurship design and thinking embedded.

[0:03:38]

Dennis: And ah that's full time course right?

L1: Full time course yes

Dennis: And ah how many years of teaching experience within the university?

L1: It was 2011 xxx that's nine

Dennis: Okay, and at the same university?

L1: No, Coventry University and BCU

[0:03:58]

Dennis: Okay, thank you. Lecturer number two same questions ah gender, subjects taught, year of study taught whether it's full time or part time.

[0:04:00]

L2: So I am lecturer two, gender is male uhm I have taught two entrepreneurship modules in the past here at BCU I'm not teaching an entrepreneurial module currently but I am developing ah at the moment a program of support to students who are looking to start their own businesses. Ah in terms of my teaching experience I have been at BCU since 2015.

[0:04:39]

Dennis: Okay and do you have any other teaching experience before then?

L2: uhm perhaps it's before my work at BCU I was involved in business consultancy so immediately before I started here so before BCU I was running my own business consultancy where I was ah working on projects for organisations and also delivering ah training to predominantly marketing executives on the EODF program and ah prior to that I was running my own I.T consultancy I was in Australia xxx so I've been in businesses quite a lot.

[0:05:12]

Dennis: Thank you, same question ah lecturer number three please.

[0:05:17]

L3: Lecturer number three I'm male I teach uhm post graduate students managerial finance and also the undergraduate students I teach international and corporate finance and financial performance management. Those are the modules I teach in levels 4 and 7 yeah.

[0:05:39]

Dennis: And are those the subjects you've always taught or have you taught entrepreneurship in the past? I know based on the research that I have done leading up to now that you have done some work in entrepreneurship.

[0:05:50]

L3: yeah, I have done some work based I have run my business in the past ah but my background is mainly investment banking and I have done my research similar research not same as yours entrepreneurship who have got keen interest in entrepreneurship that research for over a period of four years. And so I have interacted with entrepreneurs and students alike.

Dennis: Years of teaching experience?

L3: I started teaching full time at BCU in ah 2016, so since then I have been teaching so I would say for close to four years now 3-4 years. Yeah!

Dennis: Okay, and that's all here at BCU what about before?

L3: Before now I had taught ah not full time, part time teaching in a few other places.

[0:06:41]

Dennis: okay thank you ah so question number one, ah lecturer number one ah what's your understanding of entrepreneurship skills?

[0:06:49]

L1: xxx I can summarize this ah it can go on for days. But I like the view of skills or competences like what you call them ah xxx they are able xxx or view of the theoretical text book but by my understanding it's sort of basically the competences needed to not just because I think to xxx entrepreneurship your almost thinking about to be developing or starting from scratch but also meaning to sustain an center ah a venture whatever you might xxx segment or sector ah but just do grow from nothing and also mostly I think the need now is you have to sustain once you grow from nothing and a big xxx.

[0:07:42]

Dennis: okay thank you, Lecturer number two same question.

[0:07:43]

L2: Uhm some terms of entrepreneurship skills I think but may have sort of define entrepreneurship skills as being those skills which enables an individual to identify and then to capitalize upon an

emerging opportunity uhm and ah yeah that's probably the simplest in about sixteen responses I could give to that.

[0:08:13]

Dennis: Okay lecturer number three same question please.

[0:08:15]

L3: Ah just in line with what you have said I would define or describe the entrepreneurial skills competences as dos that ah they are life skills I'd define them as life skills that a student or someone would need to be able to try ah either when your setting up a business or even if you're working in a business so uhm these are skills that uhm things ah they are soft skills like being able to team work ah being able to work with others and so be able to identify opportunities being able ah to make the best of whatever you see in your environment and do well at those things, they are soft skills xxx presentation skills uhm being able to articulate your points clearly and things like that.

[0:09:24]

Dennis: Thank you so much so do you lecturer number one and may be for the benefit of others as well uhm do you recognize these as entrepreneurship skills? Creativity and innovation, lecturer number two, ah by the way you're welcome to elaborate if you think so ah lecturer number three, next skill do you recognize opportunity recognition creativity and innovation and evaluation as key entrepreneurship skills, yes xx lecturer number two.

[0:09:56]

L2: It's ah essential xx fully essential I think being able to okay now identification is something that perhaps is not stressed enough when we talk about entrepreneurship and entrepreneurship activity I think that's where the starting point is actually you know if you have individuals help who are unable to identify an opportunity then nothing can flow from that so I think that's really key.

[0:10:23]

Dennis: Lecturer number three

[0:10:25]

L3: yes, same opinion

[0:10:27]

Dennis: Uhm lecturer number one, decision making supported by critical analysis synthesis and judgment.

[0:10:33]

L1: Yes, I'd probably leaning towards I don't know what the others are but I do see that especially once you have identified the opportunities or patterns and all then you can synthesize because sometimes today especially with how much information exists as you can filter around the stuff you

actually need to synthesize what's necessary to form whether it becomes a venture ah I see that that's key too.

[0:11:03]

Dennis: Okay, lecturer number two

[0:11:04]

L2: I'll agree yes I want to agree with xxx

[0:11:07]

Dennis: Lecturer number three

L3: Yeah

[0:11:10]

Dennis: Ah lecturer number one implementation of ideas through leadership and management,

[0:11:16]

L1: Ah its becoming yes I'd say yes, yes ah I was going to avoid the word xxx

Dennis: No you're welcome to use

L1: I know because I do see places that, exceptions where some of that is almost given to others to xx people's behalf ah although there's ah I acknowledge my advice I think in terms of leadership and management xxx yeah.

[0:11:46]

Dennis: Lecturer number two

[0:11:48]

L2: Okay, xx

[0:11:49]

Dennis: lecturer number three

[0:11:51]

L3: Uhm not I feel ah it is important but I feel you could be a successful entrepreneur ah because if all you do is identify opportunities and you're able to uhm make something out of that, like he said if it's possible to give and we've seen successful companies around where those that have started are not necessarily leaders or they've been able to identify that they are not leaders and they took the back seat and let others run ah the business. I think it's an important one to have but also others could be better at it than you to move the business forward.

Dennis: So do you then think that it's more of management skill than entrepreneurship skill?

L3: Uhm yes I think it's ah it's an entrepreneurship skill but I feel some of this could be better at it uhm because ah entrepreneurs they, they are not necessary ah they don't necessarily have leadership uh skills but we've seen they are able to identify and at least ah bring all the others

because being able to actually put a team together to make up for those things you cannot do is actually an entrepreneurial in itself because being able to identify and bring those things that you're lacking while trying to I think that's uhm so I think it's useful to have but it's not ah it's something one should be able to develop Yeah.

Dennis: I notice you had a ... you conquer or

[0:13:48]

L2: yes uhm I think it is where I was coming from in terms of uhm contemporary practice because again I acknowledge my advice I think coming from where we xxx business management leadership. It's something xxx if you stress on but we xxx as xxx said xxx evidence where people don't necessarily possess these skills but are able to take on so xx like a role or develop with time those leadership attributes ah they have to exhibit at the beginning they might be really good at the other ones you mentioned before the identification synthesis but this last aspect almost as good as it is xx perhaps a xxx is good before successively recall the success because I think I mentioned if you say just entrepreneurship then it could be just that but if you say success then xxx really holding you to this leadership aspect

[0:14:45]

Dennis: lecturer number three

[0:14:45]

L3: I probably wouldn't agree with that, I mean another thing that's been talked about is an entrepreneur might not be a full package as in xx minding to bring in other elements I guess from my perspective identifying that I don't have all of those skills I'm bringing in those ah other individuals that demonstrates leadership to me that demonstrates that's just my take on that.

[0:15:20]

Dennis: Okay, thank you lecturer number one another skill action and reflection do you recognize this as a key entrepreneurship skill.

[0:15:30]

L1: Now we are digging deep, I'd say action or what we call action is full of subsidy execution the real key, and I think a lot of Greeks entrepreneurship citizens xxx it's just great ideas they could actually execute this to gravitate uhm but they are actually doing off ah the second part of that though that's reflection and again I acknowledge my mess because I think that's essential now I think that's also personal trait personal reflection or deflection also well I've seen that work but I don't think that's quite common now ah entrepreneurship perhaps has most of the time the journey begins with an individual two, three xxx and a lot of less of thinking of this person the ability to reflect almost has a direct correlation with what happens in the organization ah they are not spending time to reflect is

also common because you're running the xxx all the time you know you're running speed in place you're heading departments in your mind ah that's a little perhaps why we have too much emphasis on reflection but I think it's really key but I know where my advice comes from so because it might not be like one of the things we see a lot on xx even some good text books we use ah but I think it is key.

[0:17:06]

Dennis: Okay, lecturer number two.

[0:17:08]

L2: uhm I think I agree I think with that, action I mean that's key, yeah it's one thing to have an idea it's something else to actually execute an idea its action also I think with the entrepreneurs I have worked in the past I have worked with entrepreneurs in various different sectors if you asked them do the reflect they would probably decide "no we don't have time to reflect" however I think that what they are actually communicating is I think they don't formally reflect using a recognized model of reflection of communication.

But actually that reflection goes on all the time, all the time and ah you know after xxx what happened okay what was the result that's reflection so although it may not be formal I think it's really key that as key as action in terms of sustainability I think uh you know that entrepreneurs need to reflect and in my experience I do reflect but I don't necessarily use a formal reflective measure xxx

L1: That's ah very, very important what I have just mentioned that's almost going back because I can almost see we are talking about patterns here I can see almost non form of xxx which is almost as a reflective framework which starts off with the identification xxx way from those identifications in the size then from the synthesis xxx in this we can take action so to take action xxx so we heading forward but before sounds like we are talking about skills it sounds like we are xxx reflection here xxxx to agree its perhaps something that is less appreciated xxx it might be happening in form of xxx ah or unfortunately as human beings sometimes we reflect because we have xxx something is going wrong xxx

[0:19:09]

Dennis: Lecturer number three

[0:19:10]

L3: well I agree with what's been said there's some concept called reflection in action and that's what's almost has been very well uhm explained which I agree with lecturer number two that's definitely entrepreneurs' reflect during the activities ah they don't follow the normal ah grid ah this reflective practice but they have reflection in action I agree with that and it's very important.

[0:19:39]

Dennis: Uhm just to zero in on this would you separate action and reflection or would you think they are one and the same? Because you all seem to agree without a doubt that action is very important but we had to dig deeper into the reflective aspect, do you think the two are separate or they are inter-twined ah lecturer number one.

[0:20:02]

L1: I think ah from my perspective I acknowledge where mine comes from ah part of it is that formally xx of you know actual concepts of reflection that they the two are related you need almost xxx definitions of reflection you need to have either the two xx from that experience reflected enforce which action or vice versa or sometimes when reflecting to form a future action ah but there's xxx I only say the total is xxx but I'll say this you always need one or the other you just need to almost have like xxx.

[0:20:46]

Dennis: Lecturer number two you conquer?

[0:20:47]

L2: I will agree yes, yes I was thinking ah the sort of ah action precedes the reflection though things are really linked I think we can't separate them.

[0:20:57]

Dennis: Lecturer number three

[0:20:58]

L3: I agree it's just like the chicken and egg you can't xxx without action they can't have something to reflect on.

[0:21:03]

Dennis: Okay, another skill lecturer number one; communication and strategy skills do you recognize these as entrepreneurship skills?

[0:21:12]

L1: Yes, communication certainly uhm communication strategy yes uhm might not bring my example of ah of a venture I tried to run myself, xxx especially when things don't go well as xxx communication and strategy are key in any venture uhm I think that long run performance view of strategy and how you then sometimes even link those two and then communicate that uhm it's quite important.

[0:21:50]

Dennis: Okay, lecturer number two

[0:21:52]

L2: Ah I think when you look at communication and strategy I think communication is really, really important whether it's the entrepreneur communicating their vision to other members of the team, communicating the vision to perspective customers or suppliers really, really important xxx know xxx has that in terms of what's that about, uhm strategy ah again am thinking about xxx entrepreneurs I have worked with.

I think strategy a bit like reflection often happens but not in a formal way uhm and something is really important that all the entrepreneurs are able to devise and develop a strategy I think it links to action because you have energy development which then leads to the action which then impacts leads to the reflection xxx really, really important that for entrepreneurs are able to devise strategy again with most I have worked with they would say without using any formal frameworks or anything we just plan this and this why we plan it and then do it and see what happens.

[0:23:02]

Dennis: Lecturer number three

[0:23:04]

L3: Yes I would ah I agree that communication is very important uhm strategy most times except entrepreneurs that have gone through formal education or are very exposed most times you'd not have a clear strategy on how to move their businesses or their ideas from, they can communicate they are very passionate no one is as passionate as they are but moving from point A to B at times they might need someone to fill, they might need that knowledge they might need uhm someone with a deeper experience they might to xxx it on but communication is key uhm strategy is important but I think most entrepreneurs over turn uhm we see on programs like ah xx it again the access where they have access to ah you might they might have dreams but not able to access those things so I think communication is extremely important and ah strategy is important but I think communication being able to communicate itself will open doors and maybe guide you to doors with strategy

[0:24:14]

Dennis: I bet like action and reflection, do you think that these two ought to be coupled or they are one and the same communication and strategy.

[0:24:23]

L1: I personally as xxx if I'd probably xxx off from what you just mentioned I would couple them but only because on one hand what he said is quite key especially now xxx most like the emerging role of ah you know a self-strategic advice boards almost mentoring where a lot of the work xxx strategic has been sort of ah loosened from one entrepreneur day to day experiences because you actually have in a sense xxx asked oriented day to day the long run vision is sort of ah fluid uhm and

sometimes the idea of xxx the emergent versus the you know the unintended strategy is more dominant ah that's xxx straight forward xxx ah and therefore the strategy sees on one side.

Also I think xxx practice xx of communication xx lecturer two in terms of we have this view now communication in this context you pitch into investors your social digital communication is like the beverage and communication almost becomes not necessarily concerned with the strategic view of long run communication but you are almost doing it for today xxx yeah all the time so it's just today's view uhm and what is necessary to move beyond today.

Ah just probably how I have equation ah splitted those two in a way. Just because I understand where they are coming from and where they could be linked especially by strategies then communicate but I think current practice is always good push those two a little towards one side.

[0:26:09]

Dennis: Do you conquer lecturer number two?

[0:26:13]

L2: Yes I guess I conquer, but I think I can carry on with what lecturer one said, and I think you know when asked to compare you can sort of the question you asked us earlier back the link between action and reflection for me there's a clear link there that doesn't exist that link between communications and strategy doesn't so I would xxx

[0:26:36]

Dennis: Lecturer number three You conquer?

[0:26:37]

L3: Yeah

Dennis: Okay, last skill, digital and data skills lecturer number one.

[0:26:41]

L1: I'm just going to xxx so this is easy for me uhm its becoming more and more important now ah in fact I think we have ah this is a statement I heard recently about how there's a lot more focus on digital skills now ah something you're gonna ah expect so actually to entrepreneurship, there are a lot of people with ah digital social sort of new xxx and expertise but not necessarily good at all these other things I think xx ah so there's an emphasis on that.

Ah it might become one of those xxx where we also don't see the xxx we have lost you don't have to be the person as an expert in digital ah communication and almost xx about communication. Uhm all digital skills in its broader sense which was beyond that your ideas xxx uhm but you do have those who then get support with people who take on that role so as much as it's necessary uhm looking at yourself as an entrepreneur as a leader of an organisation you could have people with in the organisation ah that might be better suited to support you using that skill.

[0:28:00]

Dennis: yeah, lecturer number two.

[0:28:01]

L2: Uhm I'd agree with lecturer one I think within a normal organisation with in a modern organisation it's increasingly important that the data and digital skills exist however I don't know the question is whether the entrepreneur is the one that needs to have those and I think actually it isn't necessarily the case that the entrepreneur needs to have those skills provided that the entrepreneur has the skills to identify those areas where skills are lacking and the resilience and the ability to bring those skills into the organisation.

[0:28:39]

Dennis: Lecturer number three

[0:28:40]

L3: Yeah I agree, I agree with them and ah xxx now that is ah it's important for the entrepreneur to appreciate the debt that uhm that could play in his business or her business in terms of ah things like social like network ah things like that, social media for example ah is there something that is extremely useful to you and if you don't know how to ah engage with those things would you employ someone or get someone to ah further do you need ah what do you call them they call them influencers ah do you need ah one of them to come on your business or to do you need to engage one of them you know appreciating like identify that opportunity to grow your business I think it's very important in addition to being able to you know it's being able to do the basic excel I think it's important those basic things but when it becomes xxx you could pass that onto xxx specialist.

[0:29:49]

Dennis: Thank you uhm question number three then lecturer number one what other skills do you feel I have missed from the above list?

So we have talked about creativity and innovation, opportunity recognition, decision making, ah implementation of ideas, action and reflection, communication and strategy and digital and data. What are the skills off the top of your head do you think I have missed or have I covered actually xxx personal xxx

[0:30:17]

L1: You have quite there xxx ah you might take this sometimes but I think I'll reflect it down uhm ah but I think there's a lot of ah if you've mentioned decision making and it's broader sense but just the idea of because a lot of what we do in the day to day is just to make decisions and a lot of this is based on the, the entrepreneur himself, you know you in typical organisations you have if the luxury

of many people making decisions ah actively and all you have a lot of staff falling on you as an individual ah therefore the skill of what we said about synthesis

Dennis: yeah that's a side category, Decision making critical analysis, synthesis and judgment

L1: yeah I think that's probably one I always, I always go back to looking at the good and the bad in terms of organisations uhm I can't think of anyone right now

[0:31:14]

Dennis: lecturer number two

[0:31:16]

L2: Ah

L1: Sorry I see that but I have just remembered one, ah this again is informed by something that's more emerging xxx I should stick my bias here too because I have done some work on a program that we run here which is not an entrepreneurship but is actually xxx xx and a lot of our students who have gone on to finish degrees at BCU in a sort of that window ah just before graduation or six months after graduation and a few of them have gone through starting their own business and one of the things that I then had to do in terms of supporting them was ah, ah self-efficacy so self-efficacy as a skill as in self, because a lot of the time you are spending a lot of the time in entrepreneurship alone, and it's a very, it's a very individualized experience and therefore the self-efficacy of that individual to believe in their own ability to actually execute because sometimes these skills could just be a basket of skills that then you know, you don't believe xxx anything with.

So serving as the efficacy by doing his work so see least burn all the things then actually really we can do something that uhm that's something that's come up. Yeah

[0:32:43]

Dennis: Okay thank you, lecturer number two any skills that I have missed?

[0:32:47]

L2: Skills that you have missed you have covered the ah a lot of these skills I would have expected to see uhm often are there some things missing, I think there probably are, whether they can be taught I mean in entrepreneurship education is in xxx.

I think ah as lecturer one was talking I was taking a few notes and a couple of things came to mind for example and this is just xx back to the example to my xxx of my entrepreneurs I have worked with uhm for example tenacity resilience results from it I think these things are really, really key now when you think about those often we associate those with xxx soft skills and I was talking to a colleague last week and she was talking about embedding some skills into one of them and I said look for me this talk about soft skills is really wrong this was the same essential skills that you know some skills suggest that somewhere you know just in the background there just xxx source of some

skills that are really essential skills so what we've talked about entrepreneurship and we've talked about the skills you mentioned but you know for me and certainly my own experience as an entrepreneur you have to have a level of tenacity it has to be there not only the passion tenacity goes beyond the passion and resilience is one to be xxx so pick yourself and toss yourself off because you know not every strategy you execute is gonna be successful not every time you pitch from xxx some resources is you're gonna get there as expected yeah so one resilience, tenacity, also resourcefulness xxx too xxx blah blah blah comes things that you need xx to go forward with the vision really so that's all I was saying.

[0:34:48]

Dennis: lecturer number three

[0:34:50]

L3: I agree with all that has been said xxx I think he's recaptured in tenacity is being able to ah take risks being a risk taker because I think hardly will you find any entrepreneur not uhm you most when you read the stories some of them are xxx had mortgaged their house you know they've taken that ah so it can't I think it's a xxx ah it can't be taught you know maybe it can be taught I'm not sure but tell people to take a risk ah not true caution to the xxx at least you be able to take measure of risk yeah I think its

[0:35:29]

Dennis: Yeah, thank you

Uhm question number four ah lecturer number one as a university out of 100% of the student contact time what percentage is devoted to each of the methods below in equipping students with entrepreneurship skills?

So I'm looking at three key ah methods of equipping students with entrepreneurship skills regardless of whether they are the ones I have mentioned or the ones that you think are missing, ah one is curricular, which is ah in class activities mainly focused on developing these skills typically have examinable modules or some kind of exam or presentation at the end of it so essentially in class though.

Extra-curricular which is happens outside the of ah the classroom it could actually happen with in the classroom but has nothing to do with curriculum for the purpose of passing the exam and then there's co-curricular which is somewhere in between ah so you might have for instance ah Richard Branson come in to speak to business students and ah the MBA lecturer might tick one or two things and maybe get the students engaged so of these three, ah and as a university out of 100% of student contact time what percentage do you think is devoted to each of these methods in terms of equipping students with entrepreneurship skills?

[0:36:54]

L1: Okay that's a difficult one ah I'll throw in estimates ah I'll probably state that perhaps I'm not too clear in terms of my own understanding of what actually happens beyond ah probably more aware of the curricular side because you know its what we do on a day to day ah I've been involved just in that passing element of co-curricular elements, uhm and my bias also is because of ah former, former university where we had a lot more co-curricular and very much explosive statements on entrepreneurship xxx pathways you know including your setting up social enterprise so we've got xxx of an event you know like so many things could be holding ah and maybe they exist yeah but I'm not really aware of the matter so if I'm giving those ah rankings ...

Dennis: Based on your experience yeah

L1: Yeah I'd probably, I'd give curriculum more I might be wrong.....

Dennis: Percentage

L1: Ah so if it's a hundred, I'd probably say ah 50% curricular, and I'd probably split the rest between co-curricular I'm not too aware of extra-curricular I think there might be stuff going on with ah I think the students' union maybe yeah they might have events and we got the ones we call class week sometimes ah there not the xxx of how much of that exist or how much I'd take that's another matter altogether xxx uhm but that's my very basically. I do accept that maybe difficult because I have not been involved greatly I mean in the full picture might give them probably 50% ah descending downwards 50 and ah 30, 20 xxx.

[0:38:40]

Dennis: Okay, lecturer number two same question?

[0:38:42]

L2: Ah This is probably one of the hardest questions uhm

Dennis: Yeah just tell me your experience

[0:38:53]

L2: Based on my experience, I'll say probably 60% for curricular and 20% for co-curricular and 20% for extra-curricular yeah that may be way off based on my experience and you know I think one of the one of the issues I guess one of the issues around this is that we perhaps don't communicate as well as we should in the xx so it's really difficult to know what's going on the outside of your own xxx ah area but I think since sort of taking on I would have perhaps given ah extra-curricular I think a significantly lowered i probably thought it was about 5 percent however my recent role as an entrepreneurship lead I've been finding out that there are these other things going on but I would say yes 60 for curricular and then 20 for extra-curricular and 20 for co-curricular.

[0:39:54]

Dennis: thank you, lecturer number three

[0:39:55]

L3: xxx I would go with 60,20,20 there's a lot happening on the extra-curricular side if you want to say in students' union uhm I get to students and finance and I get to send them a lot of there's a lot of emails actually of activities both within the university and outside the universities ah students are informed well like he said the optic ah the problem is if we are going to look at actual engagement I think our students will engage more with the curriculum it's sort of compulsory and others ah most times a lot of them do it ah some do but I think most of the students don't engage with the extra-curricular activities ah there's a lot the students' union has a lot of ah there are lots of we've got the investment society entrepreneurship society where many of our students actually join ah and engage with those ah activities ...

[0:40:57]

L2: I think lecturer three is making a very important point there with regards to engagement uhm I've certainly taught entrepreneurship modules that are called entrepreneurs ah what I found why I found is that those students who didn't have an interest in entrepreneurship or enterprise disengaged and this was ah you know curricular activity xxx they disengaged I'm not interested in this I want to you know graduate and go away you know in this topic of business that top business I had no I mean no idea to start my business I had no desire to do that why do I have to do this, it's tricky xxx so xxx probably say that's the balance while that balance leads to change or that is another question altogether xxx.

[0:41:56]

L3: I think that brings it again to the first points that we first question you asked which is you know when we said entrepreneurial skills and competences where our students you know we were telling then that even if you go to the work place these skills are transferrable you know being ah you can't be intra xxx within and that's all we are trying to pass across to them to so that they are able to take those skills social skills, networking skills, uhm being able to work with others, ah they all tend to gather in clusters of the same people they've known from year one and so we are trying to tell them break out from those so I think ..

[0:42:42]

Dennis: Which then brings me nicely to my next question, lecturer number one based on your teaching experience which of these methods curricular, co-curricular and extra-curricular, do you think is most effective in equipping students with these entrepreneurship skills and why? Regardless of the breakdown of the percentage based on your teaching experience uhm which of these three do you think is most effective and why?

[0:43:10]

L1: That's a more difficult question, I think it's because the word effective really makes you think because from all we've all just said the idea of effectiveness might also be xxx when we said xx engagement ah and those who might receive because there are some assumptions we are effective when actually developing skills and competences for those who perhaps do agree ah I think I might be leading us to curricular again ah whether it's effective or not in our eyes which I think tends to be the case now institutionally we always think that we have ah some obligation based on what I was learning after receiving this with evidence with you know structures behind that, ah actually I've seen sometimes students almost need the independent sort of xxx learning aspect that comes from either doing something in this area or attending something where somebody pretty much says exactly what you said in the classroom but they take it more to xxx ah you know the example of xxx tells you about stuff you've taught they'll listen to him rather than you xx we knew probably xxx but they do have that experience of ah co-curricular or extra-curricular maybe being effective but I'd say that just based on all the stuff we've said in the sort of previous question.

Uhm I might be leaving more to answer xxx about co-curricular again that's because we are in an environment which if I was to put sort of a finger xx its almost going backwards to that xxx engagement again its almost going back to what would be effective in engaging these groups or making them do something and currently just sounds like that's the one where because it's a must and it's built in the structure ah you might be getting more people in there for that xxx.

[0:45:19]

Dennis: Okay, lecturer number two the same question.

[0:45:20]

L2: Okay, uhm I will have to disagree with that and go with the lecturer one on this one I think from my experience uhm I would have to go with the extra-curricular, there's a couple of reasons why I'm saying extra-curricular, I think with curricular as I mentioned in the previous question you don't have two lots of students two groups in the room you have those who might have some sort of entrepreneurial desire and the vast majority that don't and those that don't prepare the ones that are gonna have difficulty in engaging.

One of the things you said in the question was what's the most effective and what I have found in my teaching experience most effective I would say extra-curricular why because now students are forced to do it no students is a mandated xxx and students have to be xxx the other thing is, is that the extra-curricular ah approach I believe is less formal and more flexible to the need of the person xx the entrepreneur so for example I might have a level 7 student and ah they are looking at starting a business they are an entrepreneur and they have an idea xxx and they have some questions about

marketing now the marketing level in my class doesn't take place until week 8 they are an entrepreneur xx 8 weeks to wait for that, xxx and extra-curricular approach uhm and that is likely more like it like a one to one approach rather than one to many.

I've always suspected that the support that we can provide under the extra-curricular basis would be more flexible more ah more targeting if you like to the needs of the entrepreneur so I'd just say extra-curricular would be most effective if like I said we are considering the effective to getting the outcome that the students xxx yes

[0:47:27]

Dennis: Lecturer number three

[0:47:29]

L3: I agree with lecturer one ah in terms of engagement in terms of getting the students to engage uhm curricular definitely we just have uhm based on what we what we're doing at the moment within the university here I think curricular but in terms of wanting to get actual output when students are engaging and successful to take it to the next step I think.....

Dennis; Acquire the skills

L3: yes I think the extra-curricular would ah again it's almost impossible for us to you know because if you have a class of 80 students and they were all to come up with 80 different things that they are passionate about if there's a way to tap into doors in the delivery of entrepreneurship where everyone is doing something that they like that would be most effective, but will it be possible to do that and ah that's ah would you be able to provide that support one to one because it'll require one to one he wants to do something on football another person wants to do xx another, some of them will come up with areas you don't even know then they'll know you don't know anything about xx supposed to be there the time frame

Dennis: Yeah just to clarify that also like the idea you mentioned about ah the entrepreneur societies it's possible that sometimes they have group kind of activities so you like have a half of the class say xxx over the weekend and so while the individual entrepreneur is there selfishly to focus on their business idea but they are part of this big cohort or be xxx they have some flexibility so you agree because you said you were in agreement with both so in terms of percentage ah I can say then that it is ah 35,35, 35 ah what percentage if you were forced to put a figure.

[0:49:25]

L3: I'd go with ah for great success I'd go for extra-curricular

Dennis: And what percentage relative to the others?

L3: Ah relative to the others extra-curricular I'll give 60% uhm I believe with that they'd be more successful and then curricular would be ah 30% and then the balance would go for co-curricular.

[0:49:50]

Dennis: Okay thank you, uhm so of the percentages that you gave to what extent is the above choice influenced by the university's teaching policy and guidelines?

So it would helpful if you could give any examples because I know lecturer number one you did mention that ah for purposes of ah tracking to know what's going on so is your distribution of 60%,20 20 ah influenced by the university's teaching policy and guidelines or not, to what extent does that engage?

[0:50:25]

L1: well, I think to it is ah especially also to see xx making about ah almost enforcing its almost enforced by xxx enforcing the learning in a way, if you could use that word but it is ah the fact that you do have a framework that is informed by how in terms of structures teaching assessment, certain groups might gravitate towards that ah I do believe that that's informed ah to a great extent by the thinking ah and I think we almost need to go back to the word engagement because I xxx ah because whether or not that is therefore something students gravitate towards or against because sometimes they are thinking about the entrepreneurs themselves and I like the example lecturer two mentioned that individual and I've met one in particular who had been at an event xx external to ourselves and I learn that this individual xx ah engages highly ah and this ah we have this hub that we share I think ourselves and Aston xxx the one that's literally above it's like a cool working space uhm it's just biased xx and this student has been there consistently actively really engaging organizing but he never comes to class xx really honestly from an entrepreneur perspective its real, but they might have xx lesson is the class is almost like an obstruction towards students it's there distractive xxx ah the associated teaching university's way of doing things uhm but its only he engages to the extent that he doesn't interfere with his already set plans, ah and but I am acknowledging from my show xxx that's where perhaps my own bias comes from xxx my bias comes from this environment xx acknowledge I am part of this environment yes

[0:52:42]

Dennis: Yes I'm mindful of the time so try and speed this one up ah same question lecturer number two, to what extent is your choice ah influenced by the university's teaching policy and guidelines?

[0:52:54]

L2: Uhm significantly, significantly I have I think ah you know the organisation xx lays their guidelines and there's a xxx. I have to go with that, uhm so I'd say significantly yes

[0:53:15]

Dennis: Okay lecturer number three please

[0:53:17]

L3: Yes is it regarding

Dennis: the breakdown yes.

L3: The break down, definitely me saying 60 is not informed by what's happening here because uhm in reality the focus will be on the curricular like lecturer one said

[0:53:32]

Dennis: Okay uhm next question lecturer number one, on a scale of 1-10 to what extent do you think that BCU students are entrepreneurial? 1 being the lowest and 10 being the highest

[0:53:42]

L1: xx like my answer yet and....

Dennis: ... as honest as you can be because remember data protection and everything

L1: yes and again I acknowledge my bias because I have come from previous institutions as I mentioned where this was the norm it wasn't automatic because I took time to develop too that took time for me to appreciate and embrace the xxx of and likely we mentioned about like lecturer two mention about embedding xxx probability, and that took time before to keeping the norm accepted so even embedding things like uhm or embracing entrepreneurship as a graduate outcome also something that is taught uhm with in co-curricular xxx business school but it took time uhm but that former institution I'd probably give them I think it helps for myself to make this judgment xxx comparison because I'd give them

Dennis: that is my next question, lets deal with this one first

L1: so from my view and I'd give them like 4 or a 4 out of 10 that's like giving generously

[0:54:47]

Dennis: Okay Lecturer number two

[0:54:48]

L2: What was the question again xxx

Dennis: So on a scale of 1-10, to what extent do you think that BCU students are entrepreneurial 1 being the lowest?

[0:54:57]

L2: Okay having only taught at this university it's very difficult because I don't have anything to compare with however I'd suggest it's quite low probably 3 or 4 but I think that's probably from my perspective that's not necessarily a bad thing because I think that uhm we have a duty xxx students and I think as lecturers and as an institution we should we need to ensure that our students are not harmed in any way by what we do in the teaching xx anything else, and you know I think we all know what the figures are in terms of ah xxx and everything else so I think my sort of figure of 3or 4 it might sound quite low but it's not necessarily a bad thing if those students which go and start their

businesses are successful rather than having huge numbers start up and huge numbers fail xxx in a worse position than when started in the first place.

[0:56:03]

Dennis: Lecturer number three

[0:56:05]

L3: Ah I wouldn't go beyond 4, because I'm just looking at the list of the entrepreneurial competences and I'm trying to tick off the students I'm trying to see tick them off and xxx 4 yeah,

[0:56:19]

L1: I think that the profile of our students also and slightly to this and I have seen it in terms of demographic the ah some of them come xxx say from say family business backgrounds where expected to go back and work xx it's also an influence yeah.

[0:56:33]

Dennis: Yeah because that brings me to the next question which you almost answered, so relative to other universities and this could be any other university but basically in the UK, how do BCU students compare in terms of entrepreneurship skills, where do you think they are, do you think they are below average at per with all the other universities above others

[0:56:54]

L1: Okay in a context that xxx up sounding like we xxx uhm because there are other universities xxx ah but obviously there also xxx where so many universities xxx and for clarity some of the above xx about xxx like one of the major is Coventry some of us 7 if I was generous but that took a lot of time and uhm

[0:57:22]

Dennis: No just a snap shot right now, just a snap shot where do you think BCU is relative to everyone else do you think it's below per, at per or above overall generally speaking.

[0:57:36]

L1: It's a very difficult question there but if I said its below per it would be harsh from just slightly below it'd all be massively below it'll be more literally the xxx because a snap shot would be xxx okay which outliers here you know groups where they do tremendous things xxx social desirability xxx that area where we hear a lot about the good we don't necessarily hear about the other side uhm so I would probably put it somewhere in the middle not necessarily very low ..

[0:58:21]

Dennis: Okay lecturer number two

[0:58:22]

L2: Now xxx entrepreneurship skills and then we are talking about entrepreneurship skills prior to our interventions or after our interventions?

Dennis: ah this is just a snap shot right now if you look at the students

L2: I'd say based on the students that I've interacted with here, it's a difficult one, in terms of the students I have interacted with in those two groups those that had an entrepreneurship idea and want to go into a business and its ah I guess part of xxx its hard xx think there's a distinct difference between those two I think so in terms of the students are enterprising their skills are significantly higher than those who you know just undertaking a module xxx in terms of how we compare to other universities I haven't taught in other universities however I have an exposure xxx students from other universities with entrepreneurship ideas and I would tend to say actually we're certainly from the students I have spoken with here at BCU I would say especially in terms of our entrepreneurial students xxx a lot better.

[0:59:40]

Dennis: Okay lecturer number three

[0:59:42]

L3: Is it ah the university or

Dennis: The caliber of our university students in terms of entrepreneurship skills relative to other universities if you were to take a snap shot where do you think ...

[0:59:53]

L3: I'd put the context if I look at the universities that we are at per with that are ranking then I would say at least we are I'd say 60% because I've I go out to ah a few countries at times to recruit and meet with some of our graduates some of our students and I ah get some feedback I get from them when I, I'm not talking about looking at the entire university I would agree with him oxford and xxx then we'd definitely be below but if you look at other universities xxx we are above so many others about 60%.

[1:00:31]

Dennis: Okay I'm going to try and speed up because we are running out of time, uhm so what do you think is the industry's view of your students entrepreneurship skills so the students who leave BCU as well as other institutions uhm what do you think is the industry's view of our students in terms of entrepreneurship skills. Xxx might be that helpful ah the CDI suggests that there's a mismatch between the graduate skills and the industry's expectations so the universities being xxx the students have been equipped properly otherwise they wouldn't have graduated ah but the industry thinks that our students and our graduates are not as skilled so there's a significant mismatch so what do you do you recognize that ah that mismatch?

[1:01:30]

L1: Uhm I have seen the mismatch from the employability expected and if I what I have seen skills mismatch as a publication and part of the good side of xx was this idea of xxx into universities ah was made to solve xxx to emphasize those missing gaps in applied skills which does include entrepreneurship skills and these aspects of where we began in terms of the skills we've mentioned uhm there's an expectation almost from the secretary bodies that we xxx make a big step towards developing these specific skills whether or not that we actually meet them is something else but ah I personally believe that xxx broadly speaking we deal with them that there's almost something else is needed however to xx I think what we actually see is the evidencing of the skills xxx students need a little help they might possess them but how we evidence them sort of use them in practice xxx.

[1:02:30]

Dennis: Same question lecturer number two

[1:02:34]

L2: Ah I think lecturer one made a very important point and ah I might xxx I think in terms of industry and organisations I've been exposed to there's a perceived mismatch I've said perceived mismatch because I don't actually see it but industry tends to perceive that there's a mismatch xx that's been my experience I think what lecturer one said really resignation xxx perhaps the issue isn't whether the students have the skills but how we are equipping them to evidence that they have those so I believe that yes it's a perceived mismatch but I think the students are more skilled than the industry would believe and the issue is perhaps around the evidence of those skills.

[1:03:28]

Dennis: Lecturer number three

[1:03:30]

L3: I agree and I ah I just when we were talking there what came to my mind was students have got replacements and a few I have had engagement with ah those have got jobs the feedback I have got has always been ah positive as in graduates or even those that are not graduates placement students are they are doing well uhm so I'd say with our students have what it takes if that's the question

Dennis: Yes it is

L3: Uhm our students have what it takes to uhm they are not worse than ah they have because every graduate it's just that the ah foundations on which we build on so our students have what it takes they have the knowledge and uhm holding it is maybe self xxx self xxx.

[1:04:22]

Dennis: Again I'm mindful of the time we tryna speed up because we still have about six questions can I just check that we are all okay with the time if it goes over say half an hour maximum.

L2: Ah I do have a meeting at two

Dennis: Okay I'll try and speed through this

L2: Okay

[1:04:39]

Dennis: uhm one of the questions that ah one of the suggestions was that ah our students might be skilled but when they get into the industry they don't do the actual jobs which they were skilled exactly so that happens to be a mismatch do you recognize that just yes/no

L1: yes

L2: Yes

L3: Yes, I agree

[1:04:59]

Dennis: Ah but if you agree, you all agree that there's actually you all agree there's a perceived mismatch

[1:05:07]

L1: Ah for that question how you have just framed it I see there's xxx because xx over the course when they try to fix xxx of an employer xx

[1:05:16]

Dennis so do you think that is what's causing a mismatch

L3: Yeah same thing ah in accounting yeah I agree

[1:05:21]

Dennis: Okay, if you had the flexibility would you change the current teaching methods of entrepreneurship module to bridge this gap or would you leave the status core the way it is given now that you now that you're convinced that there's actually no mismatch per say but it's just a perceived mismatch and in this case you carry on training your students for the jobs for which you're are training them whether they get those jobs it's a different matter, would you then ah if you had the flexibility would you change the current teaching methods of these students or graduates perhaps are more versatile and if so what would you actually change?

[1:05:59]

L1: xx For me yes I would but not too much I'd probably change ah we call it transition design at the very end so all this structure that we do how do you enable students to transition towards what they then perceived they will do because I think the message comes a little bit too late sometimes when

they do process and the good ones will have gotten it but the vast majority will need the transition design to help them understand xxx

[1:06:24]

L2: I agree with lecturer one yeah absolutely I'm changing

L3: Yeah I'd change xxx maybe industry ah getting the industry better involved in each of our deliveries

[1:06:36]

Dennis: Okay next question which is the quick question uhm you will all have heard this which is the entrepreneurship eco-systems ah so part of this research aims to explore the extent to which the what happens in the wider entrepreneurship environment affects your choice of content that you're teaching and in teaching methods, so I'm using ah this lay out by Isenberg and he looks at all the other aspects that affect the world entrepreneur lives in so policy, finance, culture, support human capital, markets all of them.

So to what extent do you think the eco-system factors collectively without being specific to either of them to what extent do you think these affect the student's entrepreneurial mindset and skills before they arrive at the university, lecturer number two

[1:07:34]

L2: Uhm to what extent I'd say significantly, significantly xx uhm some of these more than the others yeah, yeah but yes uhm significantly...

[1:07:46]

Dennis: lecturer number three

[1:07:48]

L3: Okay yeah significantly I agree with

Dennis: you conquer?

L3: Yes

[1:07:51]

Dennis: Okay lecturer number one to what extent do you think each of these eco-system factors affect the students' entrepreneurial mindset and skills before they arrive at the university you can deal with one at a time, culture?

[1:08:03]

L1: Highly

Dennis: highly?

L1: Yeah, significantly xxx

Dennis: Okay, Human capital

L1: uhm

Dennis: so this is where all the skills come in, the universities come in

L1: yeah I'd say highly xx that's a high

Dennis: Okay this is before they arrive at the university

L1: I'd say highly xxx

Dennis: lecturer three

[1:08:29]

L3: I'd say highly because this has to do with ah may be the kind of xx from secondary kind of, we are talking about the kind of back ground some of them didn't go to grammar schools yeah, highly I'd say

[1:08:43]

Dennis: Okay, policy lecturer number one this is typically government and other regulatory agencies

[1:08:49]

L1: Ah I'd say moderate no not very highly I think they come to know about this a bit later.

[1:08:56]

Dennis: Okay lecturer number two

[1:08:58]

L2: xx

Dennis: Lecturer number three

[1:08:59]

L3: So what's the breakdown of the policy?

Dennis: we are talking about government partner institutions leadership

L3: I'm trying to disagree here I think highly because ah I think ah not being on not wanting to sound I think the government policy at times is ah I'm trying to look for the policy xxx that word to use

Dennis: Is xx

L3: yeah I don't want to use the word dicommunetry, this government is trying to close the gap now they are trying to close gaps that means there were gaps before so

[1:09:31]

L1: Oh yes! Because actually I had shifted xxx flavor of the matter or feeling because government policies shift and sometimes it starts off with we are now going towards access we are going towards employability now we are going towards entrepreneurship xxx about to get all the support xxx to get people moving behind it so yeah.

[1:09:51]

Dennis: Okay, finance

[1:09:52]

L1: xx very, very highly from my view

Dennis: okay lecturer number two

[1:09:57]

L2: significantly

Dennis: lecturer number three

[1:09:58]

L3: highly

[1:10:00]

Dennis: Ah robustness of the markets, this is basically the networks in which it is easy to acquire early customers access the markets the networks lecturer number one

[1:10:11]

L1: Ah I'd say medium although t should be high, but I've said medium

[1:10:14]

Dennis: Okay lecturer number two

[1:10:16]

L2: I'd say high

[1:10:17]

Dennis: Okay lecturer number three

[1:10:19]

L3: I say high, networks yeah

[1:10:22]

Dennis: Uhm last but not always least, support ah lecturer number one. This is essentially all the other bits you know to do with NGO, to do with

L1: this is pre?

Dennis: Yes before they come to university, ah we are talking about their entrepreneurial mindset and skills these entrepreneurship things before they arrive at the university; to what extent do you think the support

[1:10:49]

L1: I'd say medium but then because I think that they probably become aware of really who will need this a little later.

[1:10:56]

Dennis: Okay lecturer number two

[1:10:57]

L2: I'd say low xxx towards low, yes

[1:11:02]

Dennis: Okay, do you think generally speaking that these continue to affect the students' entrepreneurship skills while they are at the university and if so why?

So look at them generally not specifically but generally speaking do you think these aspects of the entrepreneur eco-system continue to affect the students' entrepreneurial skills while they are at the university?

[1:11:23]

L1: I'd say yes they do particularly in aspects like culture and markets I'd say yes.

[1:11:29]

Dennis: Okay lecturer number two

[1:11:31]

L2: Ah I'd say yes, uhm perhaps primarily around the elements of such as policy yes.

[1:11:42]

Dennis: lecturer number three

[1:11:43]

L3: I'd say yes maybe particularly around ah culture ah because of waved demography of what we have I feel that these environment provides the opportunity to dump things around really.

[1:11:56]

Dennis: Uhm maybe the other question I'll probably comeback to that one later I'll try and go through it before lecturer number two leaves.

Ah on a scale of 1-10 to what extent do you think each of these aspects influence your entrepreneurship education curriculum design i.e. the choice of content and the teaching methods, so we have entrepreneurship skills we have the different teaching methods and we have this entrepreneurship eco-system to what extent do you think ah these aspects of entrepreneurship eco-system impacts or influence when you're designing entrepreneurship education, are you cognizant of these aspects and therefore the extent to which they are likely to have impacted on this template of this student before he comes to university? Lecturer number one

[1:12:53]

L1: Yes xxx things like human capital we can see this.

[1:12:56]

Dennis: Okay lecturer number two

[1:12:57]

L2: Yes, I'd say certainly ah around culture primarily yes.

[1:13:01]

Dennis: lecturer number three

[1:13:03]

L3: Yes I'd say around yeah culture support yeah around that area.

[1:13:08]

Dennis: Okay, Uhm so with regards to ah these aspects of the eco-system have there been any significant observable changes over the years to suggest that the impact you've highlighted earlier about the eco-system on the students and specifically their entrepreneurship skills do you think that this eco system particularly with in the area in which this university is based, has changed over the years and if so have there been any observable changes that suggest that this impact is going to change and if it's going to change in what way is it going to change? Lecturer number one

[1:13:51]

L1: Yes it's going on right now even I think even as institutions we chase for things like recruitment rankings, government funding for research that we are affected and we continue to be affected ah over time uhm especially as institutions xx about all agendas including xxx finance xxx uhm so I think its dynamic.

[1:14:14]

Dennis: lecturer number two

[1:14:16]

L2: Ah xxx I think it is changing I think ah I think should change yes it should change the environment in which we are practicing organizational xxx students will enter into xxx is changing yes so I think the ah impact is likely to be ah better or both significant in the future yeah.

[1:14:41]

Dennis: lecturer number three

[1:14:42]

L3: Me I agree, I think change ah there's this thing about the entrepreneurial university xxx so I think yeah I agree with what's been said.

[1:14:51]

Dennis: Second last question if so, which aspects of the eco-system do you xxx changing over the others, so we have all six of them ah while they all work in tandem, ah some are likely to be more impactful something from a curriculum design and entrepreneurship skills perspective which of these do you see having a more significant effect than the others, maybe two or three.

[1:15:17]

L1: I'm biased towards policy because I have seen that check other things ah but policy certainly and the view of human capital certainly ah especially since there's a huge change towards entrepreneurship skills therefore I'll probably xxx ah probably xx finance obviously would but those three xxx narrowed down those ones because you mentioned the others also yeah

[1:15:43]

Dennis: Lecturer number two

[1:15:44]

L2: For me it'd be the strongest really after policy I would say ah perhaps xxx by ah finance financial capital xx the question again

Dennis: so the question is uhm which aspects of this eco-system ah do you xxx change more than others in terms of the extent to which they impact the curriculum design or the entrepreneurship skills

L2: Policy,

[1:16:11]

Dennis: Policy, okay, are there any other aspects of entrepreneurship education or entrepreneurship skills those that might have a local impact or significance that I missed from the questions that I asked because eco-systems are local so what's happening in Birmingham might affect BCU Aston university but may not necessarily affect Newcastle or the other side, so are there any other aspects of entrepreneurship education entrepreneurship skills and may be aspects of the local eco-system ah that have a local significance you feel might affect our students in terms of entrepreneurship skills that I might have missed.

[1:16:53]

L1: Yeah if you mentioned something about local but the rest of Birmingham xxx entrepreneurial city second to London xxx event where there's some an idea of the emergency of just new startups xxx yeah

[1:17:10]

Dennis: okay, lecturer number two

[1:17:12]

L2: I'd add nothing completely xx yeah.

[1:17:15]

Dennis: Okay thank you, xxx okay uhm I think that comes ah that's the last question that I had any other question that you think I ought to have covered given how we started uhm what my research is aiming to achieve and the kind of questions that I have asked are there any aspects that you

thought perhaps I might have over looked the from an entrepreneurship education point of view from an entrepreneurship skills point of view from an environmental ecosystem point of view.

[1:17:48]

L1: I can't think of one especially after seeing this yeah

[1:17:51]

L3: I think the only thing I think xx of the university it's ah demography it's still tied towards ah I mean the xxx I don't have the figures but there are some people I see more around and I see in my classroom so I think maybe put in that and also I think that might be something that you would in ah a context

[1:18:22]

Dennis: What I've done is ah so this is the ah in the ah I have done surveys that capture all that so I've already I've captured those demographics in the surveys that I did so this the high level xx I'm trying to dig deeper so I have done surveys for students survey for lecturers ah focus groups for students focus groups for lecturers so this is the focus group for lecturers so I have covered the bit but that's a good observation.

[1:18:48]

L1: yeah xxx because xxx also about ah our equipment group and also our entry requirements and whether lots of skills xxx ask but still xxx yeah xx but I know some universities do ask the income statements that you've got xxx the personal statement

[1:19:07]

L3: Yeah and things like that

L1: yeah xx something goes into application

[1:19:12]

Dennis: Well allow me to pick you up on that one ah given the challenges that the universities are having in terms of recruitment do you think that is likely to be adjusted to box ticking exercise or they actually mean it when they are saying it.

[1:19:26]

L1: well I think the bonus for the institution I was just talking to a colleague Tom who a lot of the applications get sent to ah to approve their exceptions if you will because the university wants numbers but the course directors also want quality or good xxx so you do have that balance there.

[1:19:43]

L3: I think it depends on the course some like the university some departments like some for example social work, nursing, that they've got they maybe 1000 obligations and they go 50 places so

they use doors as they use as an opportunity to sort of xxx so I think it depends on but really the numbers you invest is after ah numbers so.

[1:20:10]

Dennis: Thank you so much this ah ends our discussion ah I'm so grateful that you were able to spare some time for this one so thanks very much xxx.

[1:20:20]

L1: xxx really, really interesting one

Dennis: Thank you

L2: I don't envy ah having to transcribe

Dennis: Tell me about it xxx

L1: Is it automated at least?

Dennis: No, no I have to do it manually

L1: as in someone told xxx I met someone at the university of Birmingham who told me, she told me there was a way you could xxx in you tube and it might not be perfect but you'll get the xxx

L3: I'm transcribing mine but what I've found xxx

L2: I use it and what I can say is what I do is I download the file it then transcribes it automatically and ah it's like for an hour it normally I think it costs about five pounds and then what I have been xxx comes xxx a download comes as a word document and I just listen back xxx.

Dennis: What I've found is that ah I actually enjoy the transcriptions because it is an opportunity to listen to the interview and make observations its tedious but xxx.

[1:21:34]

Dennis: Okay thank you very much.

END [1:21:34]

E. BCU LECTURERS FOCUS GROUP 2 – VERBATIM EXTRACTS

Interviewer: Dennis Aguma

List of Acronyms: L1-lecturer number one, L2-lecturer number two, L3-lecturer number three, xxx unclear.

BEGIN 0:00:00

Dennis: So thank you very much for allowing to do my interview, ah particularly at short notice and also given how busy your schedules are, tryna get everyone it's been a challenge but at least you have managed to save sometime. So my name is Dennis, Dennis Aguma, I am a PhD student. My research is under the supervision of Dr. Susan Cissy and Charlotte Keri and they are both colleagues here ah in the department of management and I'm exploring the effect of entrepreneurship eco-systems on the choice and effectiveness of different methods of entrepreneurship education. So you have been invited to participate either because you teach entrepreneurship or an entrepreneurship related module here at BCU ah just to make sure that ah from an ethics point of view I need to let you know that this process is voluntary if you feel like you had to leave at any point for whatever reason just let me know and I can stop the interview and ah in terms of ethics, this has been approved by our ethics thought here at BCU so in terms of data and data protection anything you say ah will be anonymised and dealt with, with the strictest of confidence both in terms of BCU's policy regarding data and the general data protection ah regulations. What I have done is for to help me in the transcription process, I will call you lecturer number one, lecturer number two, lecturer number three uhm and it will be helpful for me when you answer the question to say lecturer number one, that's what I think ah so we are going to start now uhm lecturer number one if you'd like to, confirm your gender, the subjects you teach and the year uhm the year of study taught.

0:02:02

L1: xxx okay, male gender uhm I teach Business entrepreneurship module 11 and the other modules as xxx well okay and then I teach international business, I teach Global strategy development I teach a lot and I teach ah I bet there's one more I teach business operations systems as well.

Dennis: Okay and as full time or part time?

L1: Full time.

Dennis: And ah how many years of teaching experience? Yes how many years?

L1: Ten, my xx as a teenager.

Dennis: and ah all of them at this university or at other universities as well?

L1: Other universities as well.

Dennis: Just in the UK or?

L1: Just in the UK, yes.

0:02:53

Dennis: Okay, thank you. Lecturer number two, same questions Gender, subjects taught, year of study taught and whether it's part time or full time.

0:03:01

L2: Okay so, female and teaching multi strategy, planning management, and consultancy project and multi foundations xx multi communication, multi communication modules, ah and I am part time and I have four fifteen years teaching experience.

Dennis: Okay, so in this University or other universities as well?

L2: Other universities as well.

0:03:30

Dennis: Okay, thank you Lecturer number three, same questions.

0:03:33

L3: Lecturer number three I'm female ah I'm modulator for xxx thinking organization development.

Ah I'm also modulator for entrepreneurship and small business management and also I have been working on the NAC and venture creation. Uhm I have been teaching for twenty years, uhm eleven years of that in xxx at xxx University and I have also been teaching in Spain as well.

0:04:05

Dennis: Thank you. Uhm so lecturer number one, what's your understanding of entrepreneurship skills?

0:04:12

L1: Uhm it's a difficult one, I mean from, that's a difficult question, uhm for entrepreneurship skills, I say now for the skills the individual who is entrepreneur from that perspective, I think what I have been carrying across to my students is that it's about being innovative, it's about I think being ah I think it involves being creative but generally with entrepreneurship, my perspective has always been different so I've done research on , I did something xx bureaucratic organizations and the entrepreneur coach of the UK, so when we talk about entrepreneurship skills, I feel a lot of things play apart even not necessarily, I know skills are could be things an individual possessed but I feel personality and other things play a big part

in how an individual can be successful as an entrepreneur so I'm working my way to the answer, however my colleagues can answer then I'll be expounding on that.

0:05:25

Dennis: Lecturer number two, what's your understanding of entrepreneurship skills?

0:05:29

L2: So it's kind of very similar to lecturer one ah I do come up the house xxx development kind of thinking and I also kind of a lot risk taking ,it's ... and I think kind of somebody can have these kind of skills but not always kind of be successful so I think it's kind of actually with when you come on developing an entrepreneur it's actually common looking at those kind of areas and most skills that they have, and kind of developing them further for example if they are a bit of risk taker actually channeling the kind of result is entrepreneurs who they take a lot of risks uhm they say that actually a lot of failing is part of the process, so I think as an entrepreneur you don't mind failing and it's a process that should xxx to achieve more, so it's kind of trying to almost kind of let entrepreneurs know they can do that and kind of identify themselves and it has a lot to do with , they come in creativity, risk taking, they are leaders they have a lot of vision, they can come and see things that may be other people can't see, and kind of a bit follow them, come and grab xx because they wanna come I wanna follow that person because he's got a really good vision.

0:07:04

Dennis: Thank you. Lecturer number three same question.

0:07:05

L3: Yeah I think uhm I think entrepreneurs are able to identify an opportunity but also acting on them I think that is one of the skills that they are able to do that uhm they are able to sale and able to deliver so the operational side as well and potentially they have to see the whole of you have to visit , uhm uhm that ideally will be perfect entrepreneurs, some of them are stronger in each area and then on the other side I would say it's the personality trait and that's around mindset and not just risk and want to, to be in it and to manage their own business and be more self-motivated to do that personality side of it as opposed to skills side.

0:07:56

Dennis: Uhm; So I have got a list of some of these entrepreneurship skills that you perhaps may be familiar with uhm; lecturer number one , do you recognize these as entrepreneurship skills and if you would like to elaborate on any of them you are welcome to do so. So creativity and innovation, opportunity recognition, creation and evaluation, decision making,

supported by critical analysis centers and judgment, implementation of ideas through leadership and management, action and reflection communication and strategy skills, digital and data skills.

0:08:36

L1: Okay, I mean I recognize all of them, I think my challenge with some of these there has to be a negative percent of them, my challenge with some of these is I feel, because I was trying to, I was speaking to my students about; I was asking them what do you think about, give me a list of entrepreneurs and somebody mentioned Mark Zuckerberg xx feel it's okay and then what we spoke about was about personality, as individual communication skills and I said I have seen him speak to the US congress, there was communication skills and strategy was almost nonexistent but he is such a successful individual when it comes to xxx that was only xx, so then I felt that an individual could possess some of these and still not be successful enough. If you are again able to identify now if I cannot play that role I can delegate or get somebody to fill those gaps. So I almost feel like, I don't know whether there's to show that as an entrepreneur should tick all these boxes but, to some degree if an individual does not tick all these, they could still be able to find a way i guess the creativity being the start they could find a way to possess most of these and still be successful as an, I mean I'd still be an entrepreneur with failure there so you are not always successful, failure can still be an entrepreneur so yeah I feel like not all of these are necessary but having most of these would, based on the examples that we have so far, having some of these would be enough.

0:10:14

Dennis: Okay, ah lecture number two same question.

0:10:18

L2: Ah so I have worked with a lot of entrepreneurial ah entrepreneurs so it's kind of very similar to what lecturer one said. That actually looking at this list they don't have all these skills, so they I think you need to have elements of all of them but some of them may be kind of have more kind of evident so they may be the most successful, so some of them I have been working with recently and they are very creative and innovative but then they are not very good at communication and strategy and they are the first to admit they can't stand in front of a camera so that can't stop them from be xxx Richard xxx, he is a primary example he hires people that can do things better than him so I think as an entrepreneur that is probably a skill that you identify your weaknesses so that you can actually identify that I have got all of these and I'm not good at kind of decision making, critical analysis so getting somebody to help you make these decisions could in away become a successful fail so you might kind of

have element to solve them but I think its key when it's about identifying your weaknesses so you can evaluate yourself, (delegate) yeah.

0:11:41

Dennis: Okay, good. Lecturer number three.

0:11:42

L3: Yeah I mean I'd start on this, opportunity recognition, creation and evaluation because to me I think that's what an entrepreneur is or does uhm but it's also about action because lots of us will identify opportunities but we won't necessarily act upon them like entrepreneurs do, uhm I think communication is important in the sense that they have to communicate their idea uhm so I think communication in that sense I think they need to be able to do that. To be able to translate their idea to other people whether that's investors or just getting people on board with them. Uhm creativity and innovation encourages entrepreneurial firms you know ask more from me at the firm level as xx entrepreneur potential to collaborating together,

0:12:30

Dennis: uhm Do you think ah like lecturer number three has said , that's for lecturer number one and two uhm do you think that some are more important or essential than others i acknowledge that you don't need all of them to succeed, but are there some that you have recognized to be critical.

0:12:47

L1: Yeah

Dennis: correlative to others, such as lecturer number one.

L1: Okay, so from my perspective again I disagree with that point, I feel if you are an individual that , I don't want to use the big examples of some of the most successful ones that we see I feel some people do not recognize an opportunity at some point or do not have a clue that is a smart idea, you might have discussed your thought about it but never executed it because he thought nobody would see it, so sometimes some people can get the idea or that could be a good idea and they take it and they run with it because they are good at executing things and I, because I have in the past colleagues who were doing teaching entrepreneurship work xx mostly was entrepreneurship xxx his xxx was teaching entrepreneurship something and that was him. All you have to do was have a conversation with him and mention to him an idea and he would get every resource in the world put it together and start something, never opposite and he was successful a few times but he was , is a type of individual that never starts the idea off but once he gets the idea he works with

it so I feel almost I couldn't xx I know the definition takes xx definition sometimes you might put creativity and innovation some of these points but I feel in reality, and against myself because it's not good enough but you know everybody could be good at identifying an opportunity but once they get it they almost complete the task and I know you have to be innovative and come up with something you love but I think the innovation starts with a different point in the chain but I think at that point you can carry on the idea, so the idea may not be there's originally but they are able to transform the idea into something meaningful. That's my experience with that individual especially he is just one of those, never original idea but execution is always original, I feel like that can be difficult for me, yes.

0:14:57

Dennis: Lecturer number two.

0:15:00

L2: So it's kind of kind of a reflecting one like lecturer one said because actually, if someone hasn't come up with the idea but they are good at implementing it with being a good leader, are they almost not the entrepreneur but they all the leader like they are kind of evidencing management and leadership skills because I think I had that with the entrepreneurs I have worked with not always the kind of person xxx they are kinda creative, created the product or created the idea, but they've got people in more strategic and can take it forward so come up with the example let's say it's more they kind of follow the leader all that they have done they kind of implement almost or maybe I mean can everybody?, I don't know may be I think it may be what lecturer three was saying, let somebody else who might be really good and can kind of recognizing but when you get into the implementory ideas I think it's quite hard for one person to be good at all of these things I think it might be an element of this, you more kind of a prior creative person but might not be a creative person but be really good at recognizing and so xxx kind of an individual.

0:16:37

Dennis: Okay, so do you, lecturer number one do you think there any skills that are missing from that list that you had expected to see?

0:16:44

L1: On an individual level, uhm I feel ehm it depends but I feel like I might need some more thinking time, as we sit here I think this is good enough. But may be after lecturer two and three say I'll have come up with something.

0:17:15

Dennis: I see Lecture three has a list so we'll start with you.

0:17:18

L3: uhm I think we need to add lateral thinking to that list I think our entrepreneurs need to know that actually they can look at things from different perspectives and then also xxx is very important for an entrepreneur because if they cannot empathize with that and you xxx they are developing for and they don't truly understand the recognition uhm of the solution of the idea or what needs to be done.

0:17:47

Dennis: Okay, Lecturer number two.

0:17:50

L2: I think possibly what I could've said previously about this kind of what identifying your weaknesses almost kind of uhm being able to xxx image reflection is normally the same you kind of almost admit your kind of failings and it's kind of like to almost say you would be more uhm you know like I said its kinda about the risks but also the acknowledging downfalls almost kind of get, kind of what you're actually saying xx awareness and mindfulness yes it all means kinda the same actually yes xxx environmental I search xxx and being able to acknowledge that kind of failure things aren't gonna work I think kind of xxx about empathy I think empathy is real key I think because I think we need to empathize with what we think about the development and almost it's kind of like your negotiation skills, ah can you come and negotiate situations and how you come and negotiate and kind of with your peers and what kind of people when you can negotiate and you picture ideas and how you can come and get your ideas across.

0:19:25

Dennis: Okay, lecturer number one, have you had any opportunity to reflect?

0:19:28

L1: Yes, I found an opportunity to think, I may be controversial on this case, see I think end user I think sometimes if because I mean my skills of marketing is not good, I mean I almost agree with what lecturer number two and number three said about understanding, I think empathy I have to redefine what empathy is in my head of the end user I mean you have expectations, so is it about caring for the end user?

0:20:00

Dennis: Yes, perhaps lecturer number three can explain.

0:20:02

L3: Yes by understanding your user, for example if you want to find a solution for that particular problem it's about really understanding what your user is going through to then make the quality of service best fitting or improve it.

0:20:23

L1: Okay, I get it so because I was being, I agree with you as well, I was going from the perspective of actually looking for an opportunity to exploit them which is also I think marketing people might love that idea so it's not really as an issue we are talking about understanding more, carrying part of yourself into trying to solve part of your problems but it's also being smart enough, aware enough to create a problem and solve it for them also that's like exploiting, but yeah I do agree with that. Yes.

0:20:54

Dennis: Okay uhm question number four is; As a university not just you as a lecturer, from your teaching experiences, out of 100% of your student contact time, what percentage is devoted to each of the methods below in equipping students with entrepreneurship skills? So think of the way you try to equip students with entrepreneurship skills and as a university generally what percentage of your teaching time do you think is dedicated to each of the following methods. So the methods in front of you are; curriculum which basically what is taught in class when you're teaching your focusing mainly on delivering entrepreneurship in an academic setting, there's an exam perhaps at the end of it all, and then we have extra-curricular which involves non – academic activities, there's no requirement for these to be part of the curriculum a typical example might be a students' society say entrepreneurship society or the debating society whatever that has nothing to do with an exam at the end of it all. The third option is the co-curricular which is something in between so you might have let's say Richard Branson, come and give a keynote to all of the business students and as a lecturer teaching business you might have formed some insights that the students can discuss in class even though it might not necessarily lead to getting them graded but they've picked one or two things. So back to the question based on your teaching time and as a university, out of 100% of students' contact time what percentage is devoted to each of these methods in equipping students with entrepreneurship skills. Lecturer number three lets change the order this time. Thank you.

0:22:46

L3: Ah I mean if I can count my modules, then uhm we have ah a high proportion working on ah life projects so therefore uhm yes we are doing the business planning and business xxx or xxx they not getting ah the kind of ah tools we use to develop purposeful ideas as well as them

working on and potentially uhm starting a business, uhm as part of or business ideas as part of their assignment and then from then we can then take the idea forward so that's kind of the root through

0:23:34

Dennis: so in terms of break down the percentage, how would you break it down?

0:23:36

L3: Ah in with my modules

0:23:41

Dennis: Yes, from your experience, how would you break it down in terms of how much contact time is spent with students in equipping them with these skills? Using each of these methods;

0:23:53

L3: Yes ah, we've ah with curricular i potentially would say is 65%, with co-curricular ah I would say probably 30%, and with extra-curricular ah thinking about design xxx that we have running at the university and the innovation hub.

0:24:25

Dennis: Okay, thank you lecturer number two same question;

0:24:29

L2: Yes ah I'm just kind of thinking about module and so I've got lots of projects with a very entrepreneurial organization the kinda guy who kinda came in to launch it he is an entrepreneur he came and started his business and he is very successful and is kinda had 200 million tones and ah he came in so that was very much curricular asked some questions and he answered some questions how he started his business, what he does, his ideas he literally has an idea and in six weeks is when he shows xxx innovative and his xxx had to do what next and xxx organization and then grow up uhm I have made doubled most of the students can kind of got a job with the organization which is really big, and then the extra-curricular uhm we've got an advertising agency uhm the students perhaps have got 49 xxx uhm the students so they can come and show their own entrepreneurial skills and actually evidence their leadership, we really encourage them to kinda do that as well xxx same house so the students get opportunity if they want to not all the students want to kind of be the leader uhm but they have that opportunity and then they actually speak to I have a lot of entrepreneurs xxx this module so xx for guests to come up and talk about their businesses and how it kinda gives empowers the students that actually you can if you want to do it you can.

0:26:13

Dennis: So if I was to push you in terms of the breakdown, out of a hundred how would you break down the conquered time at the university in terms of equipping these students with these entrepreneurship skills using either of these methods?

0:26:28

L2: so I kind of break it down so the curricular I call it 50, it's probably had 50 and co-curricular I guess lecturers coming in and lecturers' xx and xxx of this so I'm giving it 30, and extra-curricular is done 20%

0:26:43.

Dennis: Thank you, Lecturer number one same question.

0:26:45

L1: Yes, I gotta give you as much of detail because my head is seemingly not as excited as lecturer two and lecturer three, for second year, yes I would go curricular, at this point we have absolutely five big markets I'll be able to change next time, co-curricular I have 5 that's because again, I use because the methods encourage to sort of dig in xxx I mean I have pushed them so far second year student have been fun; and then so I'll give 75, co-curricular 5, extra-curricular bringing in people; I mean I put case studies there, hoping that would sort of make it the extra-curricular stuff seen a bit so I will give it 75, 5 and 20 for extra-curricular.

0:27:39

Dennis: Just to clarify, the case studies are not necessarily extra-curricular, they are

0:27:46

L1: I kick them out. Okay so would that be, alright so...

Dennis: Unless they are life projects, where you bring these little entrepreneurs to come and participate.

L1: So

Dennis: So in light of that would you like to review your percentage.

L1: ah no because, more or less okay so bringing in the individual, there's a couple of people so far who come in to just talk about how their businesses have progressed and all that, would that fall into extra-curricular activity?

Dennis: Possibly co-curricular...

L1: Ah, I might review that to 75, co-curricular 10, and extra-curricular the remaining.

0:28:22

Dennis: Okay, thank you. Uhm based on your teaching experience which of the above methods those three methods do you think is most effective in terms of equipping students with

entrepreneurship skills, and why? So based on your teaching experiences the modules you teach, ah either this year or the ones you've done in your teaching experience, which of these three do you think is most effective in equipping students with entrepreneurship skills and why? Lecture number three.

0:28:54

L3: uhm I think, well I think we need a combination of all three in all the areas and I think yes definitely and the curricular for me you know in any university setting still will never leave the academic setting and we still need to get into that academic we've got however if we can apply that to ah you know in everyday life situation of running a business I think that's perfect ah combination but a degree imposed xxx in all academic institutions which we didn't know the curriculum in that way, so there's plenty of application.

0:29:38

Dennis: So in terms of the previous question which was looking at what percentage of your contact time with students is dedicated to each of these methods, would you think that the same level of impact can be expected in terms of equipping students with these skills in terms of percentage, so for instance would you say that 60% that curricular is 60% as effective compared to co-curricular or extra-curricular if you were to weigh each of the three, how would weigh their effectiveness in equipping the students with these skills? I'm mindful that the university being the university you are expected to have an academic regard but it does not necessarily, because you are teaching the students in class and 60% of your time is meant or dedicated to teaching the students in class that is going to give you 60% level of effectiveness in equipping students so that's what I'm trying to find out whether those ratios are consistent with your experience of students.

0:30:47

L3: I think that I do ah I think we need to deliver the updated skills and we need to provide our students with those skills uhm everything is about practicing and practicing and practice it doesn't have to be always effective uhm so and I think we can give them tools to work with, how we deliver those tools is another question we can use those case studies xxx but I still think they need to have a frame work to follow in terms of the yet, in terms of developing the skills. We cannot forget the link between personality xxx failures as well so obviously somebody is not well inclined you could all give other goal a successful business anyway, so but if xxx yes I think xxx we need to equip them with the skills so yes do i answer the question?

0:31:41

Dennis: Yes, lecturer number two please.

0:31:44

L2: Yeah so I agree with ah lecturer three, you have to have xxx so for example my module they've learned a theory about planning multi planning in all the frame works however I feel that the co-curricular is what kinda sets them apart so in my module I think if I did this as a just a case study that according to me it won't have the same impact so actually having a live, brief xxx come in and they talking about xxx rebuild all the top students' work they actually say they can't believe the level of analysis and evaluations that the students are doing and I think that's uhm that kind of empowers the students because they kind of it's almost like they wanna have a live case coming in they kind of reinforce what I'm saying, so if what I'm saying is they've got to follow this framework and they xxx so far , it's like commonly saying this is what we follow and this is the strategy used I seem to kind of uhm learn more from somebody that is actually doing it day to day and what they're kinda saying, let's say for example an entrepreneur that kinda came in and he didn't get to get to the university but he said actually almost all the following mis-concepts that you've all learned from the university he was almost kind of reinforcing that what we do here, in a real life situation works and I think the extra xxx always fall xx and decide xxx students are kind of volunteering and working on life projects extra to the degree.

0:33:24

Dennis: So in terms of these skills, these entrepreneurship skills, uhm which of these three methods do you think is most effective in giving these skills. Uhm I'm aware of the fact that this being the university you have a level of academic regard but does that mean that curricular which is under the opinion that delivers the academic regard is as effective in equipping students with these or do you think that the co-curricular, extra-curricular perhaps might be more effective?

0:33:52

L2: I might say yes but ah co-curricular xxx using the kind of life projects and then extra-curricular whether can practices skills and kinda go through the innovation, creativity thinking that because its so much you're giving to the problem that I can relate with the right solutions xxx so that kind of evidence is more with the extra-curricular activities. So we are giving them an opportunity with co-curricular to also evidence it.

0:34:23

Dennis: uhm Lecturer number one, same question.

0:34:27

L1: uhm yes, so for me I think that the curricular is more important, curricular is more important personally because I look at the list for the entrepreneur skills and I feel that for example what we do in the classroom in terms of teaching let's say each student is to tute stand in front giving them the frameworks the modules the structures and all that well there are structures because a framework is not given in isolation. Someone who gives you , if you give a student a framework it's based on somebody's case study xxx that failed and somebody learned about, so I feel that part is important because it's almost like its helping us focus on things that could potentially be a problem for you in the future as a company. Now, why do I think it is important I think the challenges from this they would be learning styles some people they just come in there and sit in there without talking to somebody would not work for them, uhm my first uhm undergraduate degree is in mechanical engineering however I studied it in Ghana a totally different approach. Sit in the classroom look look write and write so for me it didn't help me , however I still feel I took a lot away from that setting even in that case anybody who has been to the UK has studied engineering who actually went to ah fix engines and went to see the cars in factories have a better experience than I have but still though I feel there's an edge there because I still know the structures, why these things feel, examples even in some cases not necessarily co-curricular in terms of case studies but where we discuss these case studies, ah its almost it's sort of equips you to understand potential problems potential issues so I'm not demolishing the role of you know somebody coming and showing you this is how it works but I as lecturer two and three said even when somebody who's run businesses successfully is using that template and frameworks I'm filling next xxx thinking. Then I feel potentially that the underlying sort of thing that an individual would need is to have a thinking in a structure we have these frameworks and methodologies structures in a way they seem to. Yeah so when you have a business idea the execution part, because I see things like can you teach communication skills and strategy; I think you can teach that, implementation and most of the things here I think they are more theoretical, obviously creativity and innovation some of these most of these things I think a text book in a classroom break depending on how you execute your teaching would do that more than standard joining of a company many times and failing ten times and then it works, because even if that.....

0:37:29

Dennis: Just to clarify from your experience uhm you think the best way to equip students with these skills curricular is most effective than the rest. Okay uhm next question is ah to what extent is the above choice? the choice you have made starting with you for instance lecturer

number one. To what extent is the choice influenced by university's teaching policy and guidelines, it would be helpful if you could give an example. So you reckon curricular is most effective, ah but you ah the previous question you ah before that it was also about the contact time that you have with students and with each of these particular methods, so those last two questions to what extent is that choice influenced by the university's teaching policy and guidelines,; so the amount time you spend with students using either of these methods uhm your views about the effectiveness of either of those methods, to what extent is each of those influenced by the university's teaching guidelines.

0:38:36

L1: Ah based on ah, I mean for the module and ah module specification that I have I mean it does reflect what I have just stated in terms of the curricular scene, but there's room for me to operate without it so it has an impact because it's almost, it is structured and it xxx to hit certain targets in contact and all that but if I, there's opportunity for me to sort of high light other aspects of the gist than my teaching time and would be effective. I just go along with it because I feel having the curricular as in most, having the biggest chunk of xxx from my perspective it's effective. Now I'm saying, I think I have to xx I'm saying this however based on lecturer two's examples if you are to put me in that situation to choose her options as a student I would take your option any day. However I think from a xxx something in here tells me that this is also a good approach so it is influenced by the university structure however it's something I do agree with because there is still need to maneuver it's just about choosing to accept.

0:39:56

Dennis: Okay so it's not like the university has set a template in such a way that it is not flexible xxx, okay lecturer number two same question.

0:40:05

L2: Yeah so I think very similar the uhm we have the uhm I have to say the guidelines for contact time however we have flexibility that we can use libraries, we can do extra things we can kind of almost kind of similar like real life decisions uhm uhm and that kind of thing may be it depends on the subject may be I work in marketing, I think students have to experience xxx and have to so it kind of puts you in a situation where they have to for example would be they have to pitch if they're given a problem they have to communicate with the uhm organization so we work with a lot of charities in these organizations we've been working on big xxx we have worked with xxx they actually have to pitch so I may have to think so I think especially for the discipline where working the uhm students need to have the extra-

curricular on the curriculum to be successful and failing and I think if we had constrained trying xxx I couldn't do that I could get right and I couldn't get together I think is which almost lose the creativity of the students because they have the freedom because they have the opportunity to xxx they can't fail to me I can say.

0:41:40

Dennis: So two things, one is you did mention in the previous question as well as right now that the nature of the subject being marketing perhaps the extra-curricular and the co-curricular uhm give the students the opportunity to develop this skill perhaps much more than the curricular, and in the previous question you were talking about what percentage of time you delegate to the students, you did acknowledge that there's more time spent on the curricular than on the other two, but then you also said that you have the flexibility?

L2: Yeah

Dennis: So why is it that you're still spending more time on the curricular as opposed to more time in contact with students using the other methods even though you seem to suggest that they could be more effective and you also have the flexibility to do it, what has stopped you from doing that?

0:42:34

L2: Ah flexibility I think we although we have the flexibility I think we also have other constraints of the university regulations that I think the students ah they kind of ah I mean you just xxx outside the students say that they love the fact that we work with the libraries and they get it though 20% might not like that place they wanna come and have let me say in the classroom writing just working over a case study. So I think as a university we do still have to have the curricular the.....

0:43:09

Dennis: so what you're saying is that while you have some level of flexibility uhm it is limited to some extent?

L2: Yes

Dennis: There are things you can do and there are things you can't do?

L2: Yes, so I couldn't do a 100% working on xxx semester some modules possibly whenever we are looking at kinda be in a period of looking at xxx one that can replace my module so that would be any kind of xxx time but I think for the subject of we still need to have that place to place class room contact.

0:43:48

Dennis: Okay, lecturer number three same question.

0:43:49

L3: uhm Yeah so I think uhm taking from the point of view saying that level six module was xxx much think daily life problem and having to come up with a solution to follow it with xxx approach so xxx which would seek guidelines from the university and as the entrepreneurship xxx wow it's a life project and small business and again they have to come up with a solution for the business so that's definitely an element of it however an asset called curricular and its xxx of assessment but they cannot do that without doing the curricular I really don't believe that I think that the curricular gives some chance to evaluate and unless you can evaluate you can't improve and you can't innovate so for me all of these skills from the curricular are then transferred across which why the curricular xxx still takes the xxx I think within the university yes we can be really innovative with the way we deliver how in the lecture room when in a seminar and we can be very creative in our ideas so I do feel that I have a lot of flexibility within the university framework but we do have these guidelines in place.

0:45:08

Dennis: Okay, uhm lecturer number one on a scale of 1-10, uhm on a scale of 1-10 ah very briefly I'm mindful of that we'll be running out of time very soon because the next questions are going to be very interesting. On a scale of 1-10, to what extent do you think that BCU students are entrepreneurial? one being lowest and 10 being the highest.

0:45:33

L1: Do I just give the answer?

Dennis: yeah just go, your welcome to elaborate if there any specific examples.

L1: I'd say 6, 6.5 and I am saying this because, in the second years I'm dealing with being entrepreneurial means successful I think they have the creativity, yeah.

Dennis: Around those skills.

L1: Yeah I think it's like tapping into I think I mean somebody like me trying to bring it up but I think that it's there potential is seen there so I guess they have 60% or 6/10 is good I think it's there just some of these need to be ...

Dennis: Extracted

L1: Yes

0:46:23

Dennis: Lecturer number two, same question.

0:46:25

L2: Yeah by seven ah I kind of feel that yeah most students evidence these skills and but it's just how we put uhm things in place like within the modules to get those and kind of make them

evident xxx because I think as a student they have all got these underlying skills but it's to what degree, how we kind of extract them.

0:46:54

Dennis: Lecturer number three.

0:46:55

L3: I'd put six (6) because I think they lack a lot of reflective skills and without reflection they can't again evaluate and improve so.

0:47:05

Dennis: Okay uhm, relative to other universities, lecturer number one uhm how do BCU students compare entrepreneurship skills? Now, when I have asked this question in another group uhm one of the things has been that relative to which university because there's a category for these universities where BCU is comparing like for like so Aston University perhaps among others okay say not the oxfords and the Cambridges, so uhm one relative to other universities in the UK generally speaking, how do BCU students compare in terms of entrepreneurship skills but also if you were to do the same comparison with like for like universities how do you think our students compare. This is just your perception.

0:47:55

L1: Oh see I think that there's a lot, I think we have the potential but we don't do well, because I think there are of I don't know how to say the restrictions they are off cultural you know from my perspective as a university more from the students' perspective and back to the grounds a lot of limiting factors, may be things that limit which means these are potential but because again picking from like to like universities I'm assuming we draw from a group or the group that we have

Dennis: Yeah, if you just take a snapshot of our students right now, do you think they are at per or below per or far per.

L1: I think this xxx so we got I'm giving an example of ah university xxx or even how some of my students have spoken about their colleagues in , their friends in Aston and who they share flats with and the rest I feel like our students are still a step underneath now I noticed some of my colleagues are doing things you know, oh we should be better than them . but yeah, they are sitting there because a lot of things are holding them back some of these skills have invested creativity innovation and all that, I think it's not something that you get to uni and then oh I've got it, it's something that I own culturally the good thing or the wrong thing with would have tears out of you.

0:49:19

Dennis: That's a very interesting one because the next question is coming close to that. so lecturer number two same question.

0:49:25

L2: So I think the same xxx where we both xxx ah within things we do with ah with flesh to xxx yeah so we get within a sector where both xxx things and things we do with the agency and an open day and I speak with students I have been to university where I used to work for a professional body so I have not every single marked xxx degree in the UK because of known xxx what the competition is kinda doing is xxx and there comes extra-curricular and co-curricular they are both bench mark as subject xxx I think as a university as a whole sector I think having what other institutions have failed that we put behind the things we do.

0:50:19

Dennis: Okay, Lecturer number three.

0:50:21

L3: Yes uhm, yeah if I compare to xxx university Aston xx we are sadly less entrepreneurial I think it's to do with the student xxx students prefer orienting like lecturer number one's point

0:50:35.

Dennis: Okay, uhm what do you think is the industry's view of your students' entrepreneurship skills? So BCU as well as other students, what do you think is the industry's view of graduates right now? In terms of these skills do you think the industry appreciates or does not, that our students have these skills. Yes, lecturer number two

0:51:07

L2: Yes I'm coming in my half my xxx simply so I have been doing a lot of work around this. So ah xxx recaptures and ah kind of what ah people's perceptual of BCU students and I think it is changing for the better, and I think it's kinda getting ah organizations and getting people into xxx because I think that's people's perceptions or may be where they were 10 years ago about what's changes and I think that the employees are pleasantly surprised when they meet students and they are trying to people's perceptions because xxx failed sometimes our students may have felt like we are not xxx university of Birmming Ham trying to change students' perception because I have had comments come in and that also now so the organisations are not looking for the very bright universities anymore they are looking for the entrepreneurial skills, innovations so I think as a university we have a lot more to offer. So I think it's a lot about changing the perceptions.

0:52:27

Dennis: Lecturer number three.

0:52:28

L3: Uhm I don't really notice that xxx the experience but I think the whole generation of millennials is having a really bad perceptions moment something they got against them.

0:52:40

Dennis: Okay, lecturer number one same question.

0:52:43

L1: Uhm I'm gonna base it on a couple of students that I supervise for the business xxx and also I mean not necessarily but once per semester because xxx entrepreneur so I think they were putting creative thinking into xxx so I think it was some sort of I think lots of these things I think once they get a hold of our students, they are happy, so from the discussion i had recently with xxx guy then student to student I think some people see a university as a university xx seeing Oxford and Cambridge and the rest but that's what they see on T.V without every person xxx for them I think a university is a university I think xxx have to be a first experience that they decide whether these people know what they are doing because ah I think one of the ladies I spoke to I think she had an experience with a student from another university and she was very impressed with that student , she had given her a problem and the student had carried away was working on it so I think at the door we change their minds from the first contact and ii think our students are capable of doing that.

0:53:54

Dennis: I'm rushing through the next questions because I'm mindful of the time. Ah research suggests that there's a mismatch between graduate skills and industry's expectations in terms of these particular skills for graduates uhm one do you recognized that mismatch and what do you think is the cause of this mismatch? Lecturer number three a, assuming there's a mismatch.

0:54:19

L3: uhm

Dennis: Do you recognize that there is a mismatch for a start; In terms of skills of our graduates?

L3: Yeah, because I have worked with family business working with xxx graduates you know they were very creative but they don't know how to start off their businesses xxx forgetting work for getting company so I did experience that there's quite a big mismatch uhm.....

0:54:43

Dennis: And what do you think is causing that?

L3: Uhm.....

0:54:45

Dennis: Okay, Lecturer number two

0:54:53

L2: I think it's our role as an institution to close the gap of the mismatch and I think that we did recognize in our last kind of review of our curriculum, that there was gaps and we interviewed employers and we tabled what kind of things and some of these skills do came out as mismatch, so I think it's our role as lecturers to implement these skills within the curriculum and I think we kind of working really hard now that they pay xxx have to review xxx speaking to the course leaders to make sure that we've got these xxx embedded within so it's kind of actually when I get out to work and they say that evidence creativity and innovation have you worked live xxx you did this xxx that can actually evidence this.

0:55:45

L3: Can I come back on that question? lecturer three I think it starts before they get to us, I think that these skills should be xxx in the private sector they change compared to the public I mean these skills in the private sector although if we've got different student profile that has to have an xxx to using these skills by the time they get to us first when they get to us it's not that it's too late but because there is only so much that we can do work with.

0:56:14

Dennis: Okay so the reason I gave you this is because that's the point you made ah because part of this research is aimed to explore the extent to which work xxx in a wider environment, entrepreneurial environment eco-system affects certainly for the universities or the lecturers your choice of content and teaching methods of entrepreneurship education. So I'm using ah xxx entrepreneurship eco-system ah theory as you can see uhm framework rather it had six aspects to it ah courses, here you are looking essentially whatever is happening at government level uhm finance, uhm success stories society norms xxx culture, and mindful of course of places like Birmming hum and their ethnic diversity, support systems that are happening around, human capital and this is where universities come in ah the market, the networks access to early customers and so on. So to what extent do you think collectively these six aspects that are operating within the wider, within the environment, depending on which Birmming hum city university is based, to what extent do you think these eco-systems act as collectively though think specific that affect the students mindset and skills before they come to the university. Lecturer number one

0:57:47

L1: I think to a very great extent because again I think I have mentioned about the especially when you've got a policy government and policy you look at the environment they are from you

know wrong models and the rest because I have switched the role models but again there are opportunities for these models so I some people are from cultures where parents have been that's why we all teach culture I guess parents have been very hesitant to go for it because culturally it could have been failure, failure is something you don't want to , you don't want to experience as an individual because I think most of our again most of our students come from groups of environments where even if it's in part of their big there are no enough rooms xxx so the culture plays a huge part and I see that in our students where thinking is limited but because they cannot do it it's just because no its not they don't see it no room at all they don't see it then when it comes to government and the support I feel again I know there are policies and minorities xxx no risk for example I feel my research is based on the previous government from before 2010 it's always been I think , I think even if there opportunities for such groups even though students have no experience they don't see it there it's almost like it's our job when they get to us to expose them to these xxx and how they can actually get the funding and all of that so there's a lot things they are bot exposed to I think we almost have to open the door for them.

0:59:41

Dennis: So perhaps may be that, I might use that point to clarify for lecturer number two and lecturer number three that these work in xxx the work turned them together and that perhaps there's none of these is more important than the other so I think the university might point students to the finance set of things it might be through the university that the government policy is implemented and so on, so collectively to what extent do you think this is affecting our students before they come to university, lecturer number two.

1:00:13

L2: Okay so, I think I xxx a lot xxx because the demographics on our students ah I think that its kinda important that they should research that kind of xxx having had a privilege to get a proper education you kind of multiply for every thinking, your parents might not be working alone in their income in supporting your family and I think a lot of things you're not gonna have some will xxx what you might not have family norms that can get you to work get you a job so I think as an institution we almost have to kind of give them the platform and kinda get to finance xx and we kind of culture be the xxx board to kind of prepare them for these kinds of skills embedded in so much drooling out xxxi think some student said to me, a life community base could pay for xxx and haven't got that at home and xxx your whole education and then all of a suddenly people are believing in you so I think as lecturers it's

our responsibility to kinda find industries and kinda believe in them but mostly tools and opportunities to evidence these skills.

1:01:34

Dennis: Okay lecturer number three, same question the students before they come to university.

1:01:39

L3: Ah I mean I think the family and culture the way that xxx this is a huge stone to turn in fact, I get some of these entrepreneurs that become super successful that's no way xxx and therefore forcing xx networks I think networking is key though xxx for any entrepreneur and I think

1:02:00

Dennis: Just to pick up on that one, would you call that a skill, the networking?

L3: it's a skill but I think it's also access to those networks as well...

Dennis: Okay so you mean networks as in xxx

L3: yeah you know because I think it is about the people in your contacts that can open doors for you so again xxx a close family situation you have access to that. I think for really good start ups in the UK I don't think we are good at growth and I think that's xxx getting started but actually it's also it's not just before xxx how what's happening after us when they leave us here.

1:02:41

Dennis: So just to pick up on that uhm lecturer number three uhm and as I said earlier these really work together but if you asked this same question in a different environment uhm the significance of each of these might be different it's a different demographics so our students here at BCU and generally in Birmming hum, which of these do you think is most significant in terms of the impacting students in terms of entrepreneurial mindsets before they come to University if I was to push you to pick three or two which ones do you think would be most

L3: uhm society

Dennis: possibly an example if you are able to

L3: I think societal norms because the demographic xxx is different compared to where I have worked before and not necessarily people with more money or less money but just they have different mindset so culture yes in general. I think it works as key because if they are not happy to take and they are nervous about doing this kind of network uhm third one uhm xx potentially yeah I think there's more to. Yeah

1:03:53

Dennis: Okay, lecturer number two same question.

1:03:56

L2: yeah, it's all very similar definitely culture and uhm the networks are not the only xxx probably the support as well, so having the kind of infrastructure implies some support for all the students xxx I think it's more wider as well.

1:04:05

Dennis: wider support Yeah NGOs whatever. Yeah okay lecturer number one

1:04:19

L1: yes I'd go for the culture, like lecturer two and three have said culture, networks and the see my challenge with the financial capital I think it should be on xxx I mean the government I could leave them out yeah, but I think for cultural market capital I think again without them trouble is all we have, xxx what we have I feel we might come down if the criteria we have xxx so far about what university equal to you know background but as an investor but as an investor unless the investor is very you know has the mindset like you are two xxx of believing in them and all that so it's almost fear can I invest in this individual so I almost feel like

1:05:15

Dennis: But at this particular time, this particular question I'm asking is mindful of these skills that we are talking about before the students come to the university which of these aspects would you think for instance our students have interacted a lot with the finance aspects of our local ec0-system will they have engaged with private equity funds for instance. Which case could have impacted on their entrepreneurial skills.

1:05:41

L1: See, I was saying that based on the culture so the examples that you would have seen possibly about because I feel like, I feel like xxx usually sitting at home looking at my parents examples from the 80's and 90's how, I'm thinking I'm sitting there complaining about there's no hope it's almost like ah ambition is limited because there would have been examples where my parents could have secured loans could have started businesses had a lot of issues. Xxx so these are examples they will see where they know you're not gonna get because I see it in the competition I here the competition xxx it's almost like they have redesigned themselves to this not gonna work I think the dirrection would not be directly but they will have felt xxx we don't have a chance so you make it yourself or nobody is going to help you that kind of thing. So for me culture and network that would be it okay xxx, fine

1:06:42

Dennis: Yes lecturer number two.

1:06:44

L2: yeah, because if we put women into our goal also then it's so very strict xx how about opportunity to use what they are learning

1:06:55

Dennis: Okay; There's a lot of research around those challenges. Ahm next question uhm do you think that these aspects of this eco-system continue to affect the students' entrepreneurship skills while they are at university and if so how? The previous question was about these skills that we were talking about' to what extent is this eco-system impacting on the skills before they come. Once they are here at the university other things are also happening the university is teaching them entrepreneurship and other subjects which are helping them to acquire these skills so two things are influencing them or at least we think they are do you think that this eco-system those factors that are happening outside this university environment continue to affect the students while they are here in terms of entrepreneurship skills and if so to what extent? Is what happens in terms of the university teaching most significant in equipping the students with these skills or are these other external eco-system still at play and if so weighing these between teaching and these are the external factors which of the two do you think is impacting our students entrepreneurial mindset. lecturer number two

1:08:18

L2: Ah I can say yes the external factors are gonna happen uncontrollably they are gonna happen whether we come here or not but I think as a university we've got to help the students say for example with the networks if you are kind of in a situation where you're never go out and meet people in different works it's our role to actually put them in those networks say to network events get them to make sure they are not limited in the first they are building nice networks so they kind of almost we kind of helping them come make up networks they have wanted before and they oversee with things like what's happening at home with culture you can't change what's happening at home but we will hopefully empower them and educate them to enable them to kind of evidence skills to kind of do things....

1:09:13

Dennis: So what you're saying is lecturer number two is that these forces will continuous play however we have the teaching methods at the university you are kind of not leveling up as such but you're empowering them to sort of play the game or to raise their odds if you like..

1:09:34

L2: yeah it's so much responding to the external factors and xx it can kinda give them skills to kind of cope.

1:09:43

Dennis: That's leading me to another question but let me give lecturer number three an opportunity to answer.

1:09:47

L3: Like lecturer two, I think it's xxx you know yes you can have access to these and we can find some element of xxx I don't think its xxx University to touch on all of these and there's so much we can do but certainly of xxx so teaching about also can help open doors for them.

1:10:11

Dennis: Lecturer number one do you conquer?

1:10:13

L1: Yes I agree with them

1:10:17

Dennis: So, following up on your ratio there, on a scale of 1-10 to what extent do each of these aspects influence your entrepreneurship education curriculum design? So the choice of the content and the teaching methods are they in anyway influenced by these aspects are you cognizant of these aspects mindful that this eco-system is local and national, so whatever is happening in London may not be the same as what is happening in Birmming hum, when you're designing the curriculum and different methods are you cognizant of these and entrepreneurship ecosystem in anyway shape or form affect your choice of curriculum content design and teaching methods; lecturer number two.

1:11:05

L2: Yeah so I definitely do take it to consider ah consideration of these elements when point to curriculum probably more with the culture uhm kind of the ambitioning drive of the kind of students uhm definitely with the market uhm so looking at the economic works bringing organizations I think that kind of support is what the live briefs under using the different institution and different infrastructures take examples so I think probably subconsciously I'd take into fact that all of these but more explicitly is culture market and the support.

1:11:53

Dennis: Okay lecturer number one same question.

1:11:56

L1: I agree with lecturer number two ... I think most text books that are xxx to student's text books even sort of touch on this in general so I have to admit that how we ah lay the curriculum in

terms of you know even how certain assessments are set method and designing but in terms of subconsciously is one even when it's not on the list the delivery mode than the things we try to xxx in terms of pushing ambition, and yeah it is there so if it's not on paper it is still something okay there's a big part of the delivery in terms of you know especially culture aspects and they sometimes get a bit controversial with policies law xxx and see if we can help them overcome mentally.

1:12:55

Dennis: Okay, lecturer number three same question

1:12:57

L3: Uhm I think for me it's about making interesting building the confidence because then xx some barriers they are facing in the eco-system and ah so I think definitely societal norms ah really would work but also the non-governmental uhm a lot of budget xx around social entrepreneurship about making a change that's say it doesn't require a business planning or you know it's something they can say jump into a little bit easier this is more successful than xx business idea and how can you make money and they change so definitely taking you to that sector a lot more and with networks xx also the small and medium enterprises.

1:13:41

Dennis: Okay two more questions and we're done. Uhm you've all acknowledged that these aspects of the eco-system impact on the students before they come to university and while they are at university, and that you are cognizant of them or somehow are mindful of them in the way you design and teach entrepreneurship but not all these things remain constant they change governments change policies change cultural evolves among other things, so with regards to these aspects to the eco-systems, have there been any observable changes over the years to suggest that the impact of this eco system and restricts your imagination to the Birmingham eco-system and do you think that there have been any significant observational changes over the year that suggest that the impact of this eco-system on entrepreneurial skills will change in the future? And if you visit any change at all what does that change look like do you think it is this eco-system is going to be more enabling in terms of our students being entrepreneurial, is it going to be more prohibitive in terms of your curriculum design uhm is it particular aspects that are going to enhance or inhibit, what are your thoughts on this environmental eco-system changing one if there has been any change that you have observed so for instance there might be some policy that has changed uhm there might be some support system, that have happened at the university over the past years that you have seen anything specific. Lecturer let's start with number two.

1:15:25

L2: So I kind of think moving from city Centre in 2015, I think that definitely opened doors for the university and I think kind of we were almost kind of put the landscape above East of Birmingham so I kind of sta xxx I think kind of positioning yourselves as the university for Birmingham I think as well it's kinda enabling more opportunities for students and I think it's the infrastructure of the university and the leadership has kind of given the xxx kind of focusing on things force xx things of policy xx and can bring you into research kinda take you xx also an incubator so I think the university is definitely enabling uhm lecturers and students to be more entrepreneurial and I think have built nice relationships and almost our networks and helps the students further.

1:16:34

Dennis: So you see the eco-system aspects of this revolving, you see the universities are catching up and tapping into those and therefore benefiting the students.

L2: Definitely

1:16:48

Dennis: Lecturer number three.

1:16:49

L3: I mean I'm new to university I have been here a few months so, but coming in I think already I have seen a lot of changes around the infrastructure and with the business advise center it's going to be positive uhm I think the degree of flexibility with other lecturers as well that we can bring people in uhm xxx acting to the local communities yet xxx that small life projects that we were doing.

1:17:16

Dennis: Lecturer number one please.

1:17:17

L1: so I mean again the points made by lecturer number two in terms of the team new relationship new mindset I see it happening that we are as the university stepping up in terms of trying to tick off these boxes xxx example I imagine is in terms of projects I think she is doing this I see those examples so positive so government policy current government, consulting government I think somehow based on the I ideology I think to some degree, yeah they might promote this a bit more than I would want to admit unfortunately yes but there is still a limiting issue in terms of the culture I feel that is almost still enough positive thing because this thing xxx connected I feel like looking at Birmming hum City University students' gender adversity a lot of things I feel like, as much as there are opportunities for them these are

avenues that we are showing them its open to everybody they are still the same tone a lot of things restrict them from actually being successful so I feel like the rest of the network could do as much as they can I feel this is more than I mean more than individual and how much would be willing to express themselves and I feel this in terms of culture. Culture is ah everything I see around us things like government it's not helpful for them.

1:18:57

Dennis: Okay so you think ah, you think the university can residue as much but you don't xxx significant changes within certain aspects of the eco-system and in particular culture?

L1: Yes

1:19:15

Dennis: Okay, last question, are there any aspects of entrepreneurship education entrepreneurship skills or may be the wider eco-systems especially ah lecturer number one and lecturer number two your knowledge of Birmingham that you think might have a local significance that I might have missed in the questions that I have asked. So any aspects of entrepreneurship education entrepreneurship skills those that might have a local significance that I possibly might have missed from the kind of questions if I'm talking about entrepreneurship skills to equip our students with entrepreneurship skills, are there any aspects that I might have missed? From the questions that I was asking

1:19:58

L2: No, Lecturer two I think with the kind of work you're tryna do uhm the life experiences and what can go with the type xx chamber of commerce and I'm working with more products xxx trying the kind of work with lots of chambers and that's kind of giving students lots of opportunities and with kind of entrepreneurial skills we are dealing a lot with the math's and xxx which is a lot of work we get a lot of visiting professors that have a lot to do with the local community xxx a couple of weeks ago and it was I felt really proud to be part of BCU because people who prompted xx we were getting awards on thanking basis and I think it was kind of like almost we all kind of like xxx we are all kind of propelling ourselves xxx some people kind of contacting me I'm seeing what you're doing I wanna be involved so much people wanna be involved in it now and I think it's gonna take time but I think over the last four years especially moving into the city center has been definitely seeing as a university they are kind of putting a mark in Birmingham and its almost people that want to be involved some people are trying to get xx quoting us and looking us up what we are definitely getting into the right direction.

1:21:37

Dennis: That's good lecturer number one.

1:21:38

L1: So I mean examples given are amazing so similar to lecturer two, but xx something is missing from the questions to me in relation to Birmingham

1:21:51

Dennis: And particularly entrepreneurship skills, of the questions that I have asked is there a question that you perhaps could have thought that perhaps this one should have been asked

L1: I know because I feel you empowerment came up a lot in terms of empowerment, empowering these individuals, these students I think we play a role I feel it could be very I don't know the whole concept of empowerment is a very big portion of the mindset, I think mindset so it's almost like now we almost have to be coming I think ... lecturer two xxx I said I see her in the activities and a few other colleagues it's almost like you become a life coach its why xxx have be very confident so I feel I know individual empowerment I feel like there's an individual element you placed in about developing that individual. I know I can find a link to coach xxx but I feel like more emphasis on the individual or the group itself it's also be very helpful.

1:23:03

L2: Also xxx lots of students it's that imposter syndrome, they don't feel like they should be here

L1: Yes and that point was given, we were discussing the area in the morning because some students are coming back for feedback and not necessarily will it be that some people are here and assume I'm not good as the guy across the room and I think especially because they share the flats and all they hung out a lot together and it almost looks like I'm here because ... even here the fact xxx also even if I may be here I'm not as good as them not even at the university itself I'm not as good as the next person and that is ah sad because xx.

1:23:45

Dennis: Lecturer number three any other observations?

1:23:48

L3: Yeah I think you could add people skills I think that would be something to probably think about yeah I think also because if you know just because suppose sometime I asked you when I can't send an email or an email with confidence so we didn't have to speak out they are so in a social media world that we are all using the ability to put our ideas out there with all the confidence and so I think it's a very important skill xx to be using in this generation

1:24:23

Dennis: Okay, thank you very much this denotes the end of the interview I shall stop here right now.

Thank you.

END 1:24:34

F. MUBS LECTURERS' FOCUS GROUP – VERBATIM EXTRACTS

Interviewer: Dennis Aguma

Date of interview: 08/01/2020

Location of interview: Makerere University Business School.

Interviewee: lecturer 1-7:

List of Acronyms: L1- lecturer one, L2- Lecturer two, L3- lecturer three, L4- lecturer four, L5-Lecturer five, L6- lecturer six, L7- lecturer seven, xxx unclear, Lx- unidentified lecturer.

Profiles of lecturers 1-7:

Lecturer 1

Gender: male

Subjects taught: Strategic management (master and bachelor; year 3), principles of business administration (bachelor; year 1), principles of management (bachelors; year 1).

Time schedule: mixture of full and part time.

Teaching experience: thirteen years.

Lecturer 2

Gender: male

Subjects taught: elements of creativity/enterprising and management (diploma), entrepreneurship development (bachelor).

Time schedule: full time.

Teaching experience: one year.

Lecturer 3

Gender: male.

Subjects taught: project risk management (master), principles of entrepreneurship innovation, entrepreneurship development (bachelor), business start-up (diploma).

Time schedule: mixture of full and half time.

Teaching experience:

Lecturer 4

Gender: female.

Subjects taught: enterprise creation development (diploma).

Time schedule: full time.

Teaching experience: one semester.

Lecturer 5

Gender: female

Subjects taught: enterprise creation management (diploma), entrepreneurship development (master), entrepreneurship and service sector (bachelor)

Time schedule: mixture of full and part time.

Teaching experience: five years.

Lecture 6

Gender: male

Subjects taught: business administration (certificate and diploma).

Time schedule: full time

Teaching experience: one semester

Lecturer 7

Gender: male

Subjects taught: managing business innovation and growth (diploma), entrepreneurship development (bachelors).

Time schedule: full time

Teaching experience: two years.

BEGIN [0:00:02]

Dennis: Its almost 4pm East African time. My name is Dennis, Dennis Aguma I'm a PhD student working on a research project under the supervision of Dr Cissy and Charlotte Keri both in the department of management at Birmingham City University.

My study is exploring the effect of entrepreneurship eco-systems on the choice and effectiveness of different methods of entrepreneurship education. So you've been invited to participate in this study because you teach ah entrepreneurship or an entrepreneurship related subject.

Participation in this research is voluntary and ah the main study is taking place at Birmingham City University and Makerere University Business School. We are looking to collect data from business managers, lecturers teaching entrepreneurship as well as students studying entrepreneurship in first year, second year and third year.

The first phase of collection of data from students has actually already happened, even though I would be looking forward to having the similar discussion with students' focus group just to dig deeper into the results of the survey I already had, but I already run a survey with the first year and the third year students at ah Birmingham City University as well as the ones from here.

So I've also sent out ah surveys to a number of lecturers I can't I can't put you know faces to names but your colleagues ah very kindly helped and responded and the purpose of this focus group is to dig deeper into the findings that I encountered whilst looking at the data. Uhm hopefully it shouldn't take longer than 60 minutes or one and a half hours maximum, ah I want it to be as relaxed as possible uhm please feel free ah from an ethics perspective because this has been ah uhm the ethics has already been secured for this one and whatever you say will be anonymised and all the audio will be recorded and for once the audio has been transcribed.

And its protected by uhm EU's data protection so please feel free to give me as much information as you can genuine and honest information because whatever you say literally stays in this room, well I'll go with it but from the protection point of view everything covered.

What I'm going to do as well I'm going to give you each a lecturer number, oh I should introduce ah my assistant Shawna, Shawna is my assistant she is going to be transcribing all this once it's been done ah but being in the interview room gives her an idea of who was saying what and she could probably talk you know identify the different voices but to help her I'm going to give each one of you numbers, so you're lecturer number one, lecturer number two, lecturer number three, lecturer number four , lecturer number five, lecturer number six.

So you'll hear me when you're saying when you're going to speak perhaps intervening and saying this is lecturer number one or lecturer number six, so that the transcribe can know who was talking.

Uhm so let me start with ah I think I might have to change the numbers now so that's lecturer one, lecturer two, lecturer three, lecturer four, lecturer five, lecturer six, lecturer seven. Uhm lecturer number one gender is male what subjects do you teach?

[0:04:03]

L1: Ah thank you I'm XXX, ah I teach Strategic management, I teach principles of business administration, and ah Principles of business administration this is where we cover some components some elements of entrepreneurship and ah I teach also principles of management.

[0:04:33]

Dennis: Okay, and that is spread over ah first year, second year and third years masters ...

L1: Ah strategic management is in third year and masters, and then ah principles of Business Administration are in first year, and principles of management.

Dennis: And ah it's a mixture of full time and part time and evening?

L1: Yes

Dennis: Okay, years of teaching experience?

L1: (sorry) ah thirteen years.

Dennis: thirteen years at the same university MUBS?

L1: Yes

[0:05:09]

Dennis: Okay thank you lecturer number one, lecturer number two. Yes gender male, subjects taught?

[0:05:19]

L2: XXX eh I teach ah at Diploma level and Bachelors' level and when we go to Diploma level I teach elements of Creativity or enterprise creation and management, and I teach ah entrepreneurial personality and at bachelors' level I teach ah entrepreneurship development.

Dennis: Okay and ah academic experience in terms of teaching how many years?

L2: One year

Dennis: Okay, ah and you teach ah again full time or part time?

L2: Full time.

[0:06:00]

Dennis: Okay (*I was trying to find a pen, can I borrow a pen? This is one of ah those things a researcher should xx I was sure I had a pen but somehow xxx*) lecturer number three.

[0:06:11]

L3: Uhm my name is XXX I do teach ah project risk and management at masters' entrepreneurship development at Bachelors' ah principles of entrepreneurship innovation at bachelors and also business start-up at Diploma.

[0:06:37]

Dennis: Okay and again is that the same for everyone that you all teach full time part time in evening students or do some of you teach just full time only or evenings only?

[0:06:50]

L2: uhm the I don't know the nature of ah because now here we have ah students who are studying day and evening, and ah we have groups for example if a group is big we segment into group A, Group B Group C, so I don't understand the mode of part time xx.

[0:07:14]

Dennis: Okay, that is also helpful information because most of ah the students in the UK would be full time students and you rarely have evening classes unless like a masters' program or an executive program of some sort but they study either evenings or weekends so that's one of the things I wanted to clarify.

Uhm lecturer number three gender was male, lecturer number four gender female, same question uhm name, subjects taught and the years of teaching experience.

[0:07:46]

L4: My name is XXX I teach at diploma level, I teach enterprise creation management I've just started only one semester.

[0:07:58]

Dennis: Okay good, ah xxx.

[0:08:04]

L5: Okay my name is XXX , and I teach on ah Diploma enterprise creation management, and then masters' entrepreneurship development that is masters' uhm in Banking and Investment, then I also teach ah entrepreneurship that is to Bachelors' students because entrepreneurship cuts across all the courses yes and ah service sector.

[0:08:30]

Dennis: Okay and ah years of teaching experience?

L5: Five years.

Dennis: Same University?

L5: Yes, same university

[0:08:38]

Dennis: Thank you, ah lecturer number ah six gender male.

[0:08:44]

L6: Yes. My name is XXX. I am lecturer number six and I teach business administration certificate and diploma years of experience it's not yet a year one semester.

[0:08:55]

Dennis: Okay good ah lecturer number seven gender male same question.

[0:09:04]

L7: Thank you, my name is XXX and I teach at MUBS and ah at diploma level I teach Managing Business Growth and in ah Managing Business Innovation Growth and then ah at the bachelors' level I teach Entrepreneurship Development and ah so far I've taught for the last two years, yes.

[0:09:31]

Dennis: Thank you very much everyone, uhm question number one please feel free to chip in whenever, uhm what is your understanding of entrepreneurship skills?

[0:09:48]

L1: Yeah, thank you very much. Entrepreneurship skills, these are skills that can help an entrepreneur to start up to do something that is completely unique adding value to whatever has been xxx to a project...

Dennis: interest in concept of value is duly noted, any other what is your understanding of entrepreneurship skills because sometimes we talk about entrepreneurship skills but they mean different things to different people, so as academics particularly here at MUBS when teaching entrepreneurship what end of skills are you uhm what is your understanding of these skills?

[0:10:41]

L2: Okay, I think ah entrepreneurship skills they vary or they have levels, we can look at entrepreneurial skills right from the start-up process, then ah creation of the business, and also management. So we look at the broad perspective of someone ah someone having that ability to come up with an idea or to scan the environment and see how best they can create a business and then those skills because we can you know in the statistics we are having at Uganda we are having many business start-ups but still at the highest failure rate so we are looking at the broad skills of how someone can come up with a business and how one can manage the business, so we look at the skills of start-up and the skills of management.

[0:11:33]

Dennis: Okay, any other thoughts on what entrepreneurship skills mean to you?

[0:11:41]

L6: lecturer number six, uhm entrepreneurship skills basically I look at them as ah abilities that enable entrepreneurship to thrive or to be successful or to happen. Ah just as he said that Uganda is entrepreneurial but if you look at the business failure is too high, one of the reasons ah brought up in the xx reports show that some people or entrepreneurs here they do not have entrepreneurship skills for example ah innovation can be a skill, creativity can be a skill, so such when we talk about entrepreneurship skills to be ah those are some of the things to be xx.

[0:12:25]

Dennis: Okay, any other deviations?

[0:12:29]

L3: Okay may be to add on...

Dennis: lecturer number three

L3: Ah on what they've just mentioned, when we talk about entrepreneurship skills basically these are abilities that do not only stop at helping someone to start but also to grow and expand compared to other skills like business skills we are focusing on growth and expansion to be more specific ah if I talk about issues like being creative being innovative being proactive being self-

starting so the key element here is that issue of growth and expansion compared to the normal business skills, because we have like the normal business people and the entrepreneurs who can cause an expansion.

[0:13:17]

Dennis: That's very interesting ah what you've highlighted uhm in the UK we have the body that looks at ah the curriculum design for higher education institutions the QAA, the QAA came up with some of the skills that they think for purposes of higher education institutions of equipping students to be entrepreneurial that these are the things that they should be looking out for;

Some of which you have already highlighted, but my question number two then is do you recognise these as entrepreneurship skills in the context of Uganda these are; Creativity and innovation which I think has been highlighted, Opportunity recognition, creation and evaluation, Decision making supported by critical analysis, synthesis and judgment, Implementation of ideas through leadership and management, Action and reflection, Communication and strategy skills, lastly Digital and data skills. Do you recognise any of these above as entrepreneurship skills from the context of a lecturer here at MUBS? Lecturer number two

[0:14:37]

L2: Okay, thank you very much, eh lecturer number two Arinda Albert. Yes I will agree with the skill number creativity is skill number three

Dennis: Yeah the order doesn't matter but it's a skill... yeah

L2: Okay, skill creativity, now look at ah when people are collecting businesses what makes you unique or competitive in the given business environment is how creative you are how you're trying to create new things that are unique from the existing ones in terms of market and selling of the product. So I think ah an entrepreneur goes an extra mile of having that unique skill coming up with new ideas that can compete favourably in that environment. So now how is an entrepreneur different from any other person?

So that person who is able to breakthrough and come up with some new element in that environment is not going to remain on the status core with other people, is going to create something new and you know the volatile world that people are always looking for something unique, and when you create something unique it's going to breakthrough in the market and that's how you'll penetrate the market and you'll be different or sell more than any other person who is in the same business.

So I think the aspect of creativity and innovation makes an entrepreneur different from any other person who tried to create, as I said we have very many business start-ups and we have different business start-ups that have come up some people start businesses not because they are

entrepreneurs but maybe because of the environment and situation has pushed them to start a business but that doesn't make them entrepreneurs so now that person who is an entrepreneur will try to think through the kind of environment that is existing within and that's by embracing creativity and innovation, that's how successful he is going to become.

[0:16:37]

Dennis: Thank you and I think creativity and innovation comes out from a number of that a number of you that have talked about this but how about other areas like opportunity recognition, creation and evaluation, lecturer number six.

[0:16:58]

L6: Yes number six, ah I would agree that opportunity recognition is a skill of entrepreneurship because entrepreneurs are people who see good in the bad even if something bad has happened for them they don't say it is bad as many people are running away for them they stand and look at it and see something good about it and that makes it, It makes them very different from other people for example here in Kampala when it rains some people will not sleep or some areas are not passable they just need to xxx there's a lot of flooding but when you get there there'll be people who will be able to make you cross as much as some people are crying that there's flooding some people are making money when it doesn't rain they don't make money.

So for them they only see an opportunity when a problem is there so you realise that that is an important skill in entrepreneurship then also creation it is also very important because after these people the entrepreneurs seeing the opportunity and recognising it they take a step they're action oriented proactive so that they can put in practice what they have spotted out in the environment and that makes creation of an enterprise xx can you know run and make money.

[0:18:21]

Dennis: Thank you the other one was about ah decision making supported by critical analysis synthesis and judgment, does that cross your mind immediately as an entrepreneurship skill?

[0:18:33]

L6: Ah from my understanding

Dennis: Lecturer number six

L6: Yes from my understanding, decision making itself could be a skill but when we try to bring in the critical kind of judgment it then makes it you know when you're comparing critical thinking and creative thinking those two things differ so I would say decision making could be a skill if it is we're making a judgment from a creative way of thinking not a critical way of thinking.

[0:19:08]

Dennis: If I understand you correctly, are you saying that decision making while it is a skill it still should be xxx to not necessarily think that its entrepreneurship skill per say?

L6: Well I was trying to, to look at it from the whole statement ah decision making in relation to that critical kind of judgment

Dennis: Because that's one whole block

L6: Yeah

Dennis: Decision making supported by critical analysis synthesis and judgment because often we find people who teach strategy and all these ah uhm subjects those are key and course uhm xx skills but as for entrepreneurs xxx students do you recognise this as a key skill almost in the same way you recognised creativity and innovation?

[0:19:55]

L6: I'd recognise it but it'd come last.

[0:19:58]

Dennis: Lecturer number five you were ah nodding your head?

[0:20:02]

L5: This ah well as ah well as decision making as a skill is very important to entrepreneurs, to me I'd not recognise it as ah an entrepreneurship skill but rather a management skill because uhm when we are talking about entrepreneurship ah entrepreneurship we are looking at the abilities that are going to make an individual stand out from other individuals that could be having management skills and so being creative, being proactive, being ah a risk taker they would stand out than I'd take decision making as a skill.

[0:20:46]

Dennis: Okay anyone else who agrees or disagrees?

[0:20:51]

L1: Uhm decision making

Dennis: Yes Lecturer number one

L1: Lecturer number one me I agree that it is a skill because even if you are ...

Dennis: An entrepreneurship skill?

L1: Yeah it is an entrepreneurship skill to me I believe even if you're creative even if you're innovative you have to make a decision because sometimes opportunities many opportunities may come along the way you have to make a decision which one is the best opportunity to undertake and at the same time as you're managing this enterprise you have to make some serious decisions so to me I take it as a skill.

[0:21:37]

Dennis: Noted okay, implementation of ideas through leadership and management.

[0:21:41]

L4: Okay I can maybe add something on decision making;

Dennis: Yes lecturer number four.

[0:21:47]

L4: Lecturer number four, when it comes to decision making I think it is also a good skill which an entrepreneur should have because I'm looking at ah that first stage where we have to come up with very many ideas when you're generating the ideas in the first stage yes, so when it comes to idea generation you come up with a lot so I imagine you don't have that ...

Dennis: Ability

L4: ability to maybe come up with a decision then you're left out.

Dennis: I agree

L4: Yeah

[0:22:21]

Dennis: Ah implementation of ideas through leadership and management as a skill in the Ugandan context particularly thinking of your students do you recognise that as an entrepreneurship skill or like ah lecturer number five said do you think that's more of a management skill?

At this point I might ask whether you recognise the difference between those two in your in the skills that you're looking for in your students. Do you make the difference between management skills and entrepreneurship skills? And that's the bit I'm trying to find out so for such a skill implementation of ideas through leadership and management do you recognise that as an entrepreneurship skill or more of a leadership skill and does it matter? Lecturer number three

[0:23:17]

L3: Uhm thank you, I think when we focus mainly on the issue of implementation it brings an issue of being innovative because under innovation we look at the commercialisation of ideas where by creativity you think of something it can be new or something that you have improved then under innovation you go ahead and commercialise your idea that is you come out with the actual product you put it on the market for consumption so if we are looking at implementation in that context then it becomes an entrepreneurial skill because you have to be creative you have also to go ahead and innovate that is commercialise your products and services if in that context.

[0:24:01]

Dennis: Yeah thank you, is there any addition lecturer number seven.

[0:24:06]

L7: Yeah lecturer number seven I, I may somehow not take it as an entrepreneurial skill because once an idea has been ah thought about created an entrepreneur may not really think so much about that especially when it requires to set up a team, a team which is going to help him think probably come up with management decisions so if ah for example I can give you an example of Safe Boda the CEO of safe Boda right now xx some of the of the management decisions that are probably going through as Safe Boda he may be a little xxx no he may ah literally have no much you know but because he has a team xx come and say now xx ah now when you tap the safe Boda app it has ah so many options you want a ride do you want to get food, do you want to do this, and I think ah it only becomes ah an entrepreneurial skill by him allowing the team to come up with ideas and then ah maybe he makes ah and maybe he agrees with them and they go ahead to implement but it's not it may not be his ah without it I'd say it doesn't make a venture fail because there's a team which he is either paying a salary or its role is to see that the organisation runs I don't but that's what I think.

[0:25:34]

Dennis: Every opinion is valid ah and then the other one is ah action and reflection.

[0:25:41]

L3: Action you mean action oriented?

Dennis: Action and reflection so you have an idea but you do nothing about it or you could do something about it may be it fails but then you look back and reflect this is x this didn't work this is what I could have done differently. Do you recognise that as a serious entrepreneurship skill?

[0:26:07]

L3: Is it different from implementation because we say entrepreneurs are action oriented they are trying to put the ideas into action they put ideas into reality so how is it different from implementation?

[0:26:22]

Dennis: So action might involve putting the team together that's going to implement okay? So thinking about something is one thing but actually doing something about it is another, so you might do something without implementing the ideas that you had you might go and do some research about it and discover that this thing is not going to work so I'm not going to proceed and then you might reflect on that based on your findings you thought there was going to be money if it rains but somehow everybody has an umbrella so you reflect on data and move on. So do you recognise that as a skill just in the same way you almost instantly recognised creativity and innovation.

[0:27:01]

L3: I think it is a good skill because one of the key aspects in entrepreneurial success is the issue of team work because unique people have different skills to put things together so to me xx skill if we integrate success is action orientation in the context of organizing a team together like the way you explained you bring the team together and that team will help you to come to the number of idea that can make your ideas.

[0:27:31]

Dennis: Okay

[0:27:32]

L5: Yeah maybe if I was getting it wrong I was just looking at it as ability for someone to learn and then unlearn and then learn from your mistakes is that

Dennis: I'm equally interested in what your view and thoughts are on this skill, so how do you understand it as a skill?

[0:27:53]

L5: The I ah because the way you're reading it, ah it feels like you are looking at someone who takes an action and reflects on it so ...

Dennis: What did you think? Is the other alternative ...

[0:28:05]

L2: Ah let me let me maybe chip in

[0:28:08]

Dennis: No she has something to say, when I said uhm action and reflection as an entrepreneurship skill what does that do you recognise that as a skill and if so how do you recognise it for instance action what does that mean to you as an entrepreneurship skill?

[0:28:25]

L5: Yes as xxx because I'm looking at like if ah an entrepreneur who is going to make ah who is going to who is ah action oriented wherever xx you recognise an idea you xx have to act on it okay, and as you're going to act on it you do a reflection for example in Uganda not all the ideas have an open window, they have a certain window period though. As you think about this idea then you need to also be action oriented because if we say there's a ban on *kaveera* in Uganda, yeah where as you are looking at it as if it's going to be there forever in Uganda it doesn't work like that, you need to be you need to do a reflection yes you are thinking you want to exploit that idea but is time on your side, you are doing a reflection or you can also go back and you if it's not your own reflection you could also look at your friends' you could see what are they doing, are you learning from the successes are you learning from the failures. So it means like yes I'm action oriented but I am still doing a reflection and it's a good entrepreneurship skill that entrepreneurs should take on.

[0:29:36]

Dennis: Yeah, lecturer number seven

[0:29:39]

L7: Yeah lecturer number seven, ah just like ah Chris said it's ah and ah Phionah it's a very good skill to ah identify with, like how why do I take it? Like a lecturer who tried to xxx on entrepreneurship at the university xx Makerere is going to graduate xx almost 19000 students xxx and I think the deans here is going to also give degrees to undergraduate students of entrepreneurship I'd be happy if in his speech if he is allowed to make a speech that out of the 200 students of entrepreneurship or the faculty of entrepreneurship and business administration ah we have ah 110 who are start-ups so parents you should go ahead and support them. But it is now a challenge that since we didn't emphasize them to be action oriented xxx after teaching the knowledge xx they also have certificates educational certificates for entrepreneurship and xx action oriented entrepreneurs so do you see that the dean is xx and say but you have been teaching entrepreneurship and you have almost all these students actually is it xxx entrepreneurs I mean they are just in the process others don't even think in this year May they'll start a venture so it is actually something we should even give an emphasis at the university as we are teaching creative, proactive what I mean without action I mean the plane will not take off, that's what I think.

[0:31:11]

L3: Ah I want to add on the issue of reflection, because reflection it is the skill when it comes to learning like she said because if you cannot reflect xx it's all about memory you try to think back what have I learnt, what did I capture, so and I believe if you can reflect then you can be a successful entrepreneur because you'll be able to learn because ah for example right now we are having this discussion if at the end of the discussion you are to ask each one of us here to reflect and none of us does not reflect then it means no learning has taken place, so I think that brings you in the aspect of learning and learning is very important when it comes to entrepreneurship because if you don't learn like you learn you unlearn and reflecting is one of the key xx progress of learning so that's a very important aspect that we need to bring out.

[0:32:14]

L2: Maybe also to add on action you know as we say that entrepreneurs are decision makers but they are not just decision makers they make decisions that are well calculated and informed decisions and I think those decisions do not just come up out of the blue they come out of first scanning the environment and you reflect about what you are going to decide, so I think ah the decision ah the action orientation is disintegrated into decision making and which I think to make a better decision you ought to make of course to decide is to take action so I think when we have

action oriented orientation and reflection it is a good trait of an entrepreneur that though we have a lot of ideas we have a lot of decisions to make but we, we make good informed decisions because of such kinds of traits of reflection ...

[0:33:19]

Dennis: If I understand you correctly, are you saying that yes you agree that action is a very key ah skill however it ought to be accompanied by reflection not action on its own not necessarily reflecting and I think that's the point we are making as well.

L2: Yes

Dennis: That it's not as effective being action oriented if you're not reflecting you'll just be running through walls.

[0:33:40]

L2: Yes because I can give you an example that you might ask me to give you ideas of starting a business and may be you say that I can start a supermarket I can start a shop I can start this, and then because I have all these business ideas viable but because I've not reflected about the existing environment or for example the environment here in Uganda is different UK, xx must start a shoe company can be very successful in UK and it fails in Uganda but the business idea can be viable but because I have not reflected the behind kind of environment or the environment behind I am not able to be successful. So to be a good entrepreneur you must reflect about what you're going to decide.

[0:34:29]

Dennis: Point duly noted. Uhm the other one was about communication and strategy skills as an entrepreneurship skill.

[0:34:39]

L2: Uhm I think let me first give my colleague too

[0:34:45]

L5: Lecturer number five

Dennis: Yes

L2: Lecturer number five

[0:34:50]

L5: Uhm okay, uhm to me communication is not an entrepreneur skill rather a management skill. I, I don't think that ah I don't know entrepreneurs ah when entrepreneurial skills are xxx entrepreneurial skills are these are traits we pick them from personality traits but ah communication skills this is something that anyone could learn so to me it's not entrepreneurship skill.

[0:35:24]

L2: Ah I think I also agree with her eh I think communication skills comes in when someone is not in the business, you know when you look at the entrepreneurial process you first ask yourself where is now communication going to help in xx you're going to see that none, after establishing your business that is when you will need communication skills to sustain that ah either the growth of the business or the business itself, so now I think ah communication skills it's not a trait because anyone else even if they are not an entrepreneur can have good communication skills but does that make you an entrepreneur; so I think eh it's since it's on the managerial aspect or the managerial stage it can be eh it can be pushed to management.

[0:36:20]

Dennis: Okay

L2: Not eh a trait of an entrepreneur. Maybe we have eh someone who is good at communication and teaching communication...

[0:36:31]

Dennis: Lecturer number one

[0:36:32]

L1: Yeah lecturer number one thank you, communication strategy and skills

Dennis: Communication and strategy skills yeah. Do you recognise that as ah an entrepreneurship skill?

L1: To me I feel it is a skill because ...

Dennis: An entrepreneurship skill a management skill? So you are It's no doubt a skill, but from an entrepreneurship skills perspective is that something you would recognise as a key entrepreneurship skill?

[0:37:10]

L1: It's not key it's more of a managerial skill.

[0:37:13]

Dennis: Okay, and then other thing is the last skill, is digital and data skills, remember the organisation that took these on is a UK based so perhaps it's a different environment so I'm very keen to hear your thoughts ah from ah a Ugandan perspective, is this a key entrepreneurship skill. Oh lecturer number seven

[0:37:39]

L7: Yes ah from a Ugandan context, I mean it would be actually a really good entrepreneurial skill ah given the ah what's happening in the 4th industry revolution and how businesses actually have been ah ah how the revolution of business and xx call we normally call it creative desk there is a lot of

distraction now say because of technology. There is a lot of obsolesce so every day if you do not think in the digital insight, you're almost irrelevant.

It would be good but given the infrastructure in Uganda; the ICT, the knowledge adoption and the resources, it is lacking that is why you normally see now most of the entrepreneurs are just necessity entrepreneurs because they cannot incorporate in a computer usage, the bandwidth connectivity of internet is still a challenge otherwise it would have been, because it makes the business grow very fast and actually right now if you can see in the books of Jumia, Safe Boda still I can use such as an example, you can really see that Uber that they have really been able to move ah to compete I would say with companies that have existed for the last twenty years because they have into that digital element in their books their revenue are therefore high. There you can't actually say it's a skill but even in the context of Uganda that we don't have the infrastructure it's really a challenge but it would be good. And I think for UK where you've been you really see that now ah people are taking it to another level, look at the betting industry in the UK you look at the you know ah businesses actually in the Europe or in the west they've really been ah improved because of that.

[0:39:34]

Dennis: So just to clarify, the uhm digital and data skills, whilst you acknowledge that they are a good skill to have for the Ugandan context they are really not a big deal, is that what uhm do I understand for as an entrepreneurship skill yet maybe two ten years down the lane xxx lecturer number five ...

[0:39:55]

L5: Yes I really I agree with him ah it would be a very ah a very vital skill and for entrepreneurs in Uganda however it's not yet a big deal in Uganda. Oh what do I mean? I think we have seen taxify close up ah in Uganda and still if I went to the market to buy bananas (*matooke*) and I'm supposedly to pay using mobile money (*MTN mobile money*) there is a higher likelihood I would come out of the market without the matooke (*bananas*). So what does that mean; it means that business businesses in Uganda are still thriving without necessarily using technology or I've even so I think maybe some things are not yet xx have not yet been appreciated by the customers and since we are customer driven at times we just go with what the customer wants and so maybe in the next ten years we can think about it but for now ...

[0:41:01]

L7: Maybe like to I don't I really don't know but that question...

Dennis: xx Lecturer number seven

[0:41:09]

L7: Lecturer number seven how you will actually transcribe it to be able to contribute to your findings, ah if you really look at mobile money it's not ah it's a digital platform but it's not web based and if you see how much businesses and how much entrepreneurs have gotten from just that innovation it is easy because everyone now can be able to use that, that modern payment system to support so many businesses so it is actually a good skill just like XXX said though, actually right now people imagine how you send money people could come and say how do you, how is it that I have money here you know, so apart from the issue of attitude the issue of mind set and may be probably those are some of the things that make Ugandan entrepreneurs think that it is not really a critical skill for them to have but it is something good.

[0:42:05]

Dennis: Okay good, XXXa

[0:42:07]

L2: Ah to me I think it is ah lecturer number two

Dennis: Yeah

L2: I think it's not a skill but an enabler in a given environment. Eh it we can either live with or without so I think eh saying it is a skill eh given like my colleague has said in this environment it's unless you are saying that having that skill like how we said that someone who came up with the mobile money that concept, you see now it if at all we had rights or these fines that this person who came up with the mobile money is having copyright rights that maybe to use that kind of model is gaining a lot from it like individually that could be in an entrepreneurial perspective but now the fact that is now the other side but now when you go to the other broad perspective of general entrepreneurs, you find that eh people customers as she has said have not adopted much of technology and you are going to find that since Ugandan entrepreneurs are customer based, it is going to be very hard for such person who is embracing that kind of technology or data management or something like that to thrive because customers have not adopted to that. So I think it is good to have it to enable you to outcompete or to thrive in the competition environment but it's not ...

[0:43:50]

Dennis: Currently it's not, xxx

[0:43:52]

L7: I'm giving my last mixed reaction on that, ah entrepreneurship is revolving and that is no exception of Ugandan context. Ah and today people who are growing entrepreneurs like us teaching entrepreneurship we are now focusing on the quality of data entrepreneurs in the next decade. So you will ah you are training a class of entrepreneurs because skills are taught, you can't really go away in a lecture theatre without talking about digital element even now in the incubation centre

there ah most of the ideas the students come up with are data, web based, why? Because they want to improve the quality, selling your tomatoes right now that you want capital to start up a tomato business on the road side, Mr Rogers isn't going to invest in me because how different am I with someone who is in Banda market? But if I say I'm actually going to connect with my buyers who are I'm going to put on my digital platform and then he could be able to maybe to refund me, so the quality of entrepreneurship, evolution of entrepreneurship around the world they are really making it a point to us to teach it and actually to equip now the upcoming entrepreneurs with these, now not only to be creative, action oriented, proactive, risk taker but also to be ...

[0:45:10]

Dennis: This goes back to the point you were saying that he wouldn't consider it as a skill but as rather an enabler of some sort. Okay I'll synthesize this xxx I have so many questions and I'm trying to xxx this but that was very crucial because everything else revolves around uhm your understanding of what these skills is.

So given Uganda's context, particularly divided between terms and regulations what other skills do you feel are missing from the above list the one we've been talking about of creativity and innovation, what other skills do you think are missing someone mentioned proactive and self xxx as action, is there any other skill that you think is missing from this list of creativity and innovation, opportunity recognition, decision making, implementation of ideas, action and reflection, communication and strategy skills, digital and data. Any other skills that you think weren't necessarily captured in the context of your experience teaching entrepreneurship?

[0:46:06]

L2: Yeah you can

L5: Risk taking

Dennis: Risk taking ...yeah

[0:46:14]

L2: Yes I think we can also ah talk about ah habituation

Dennis: Litigation?

L2: Habituation,

Dennis: ah elaborate

[0:46:27]

L2: Ah that aspect of fitting into a given environment whether like for example when you lived in Uganda and you lived in Uganda and you were able to adapt to the environment that was in UK. So I think

[0:46:51]

Dennis: That's an interesting one,

[0:46:52]

L7: yeah but I think actually the basic fundamental I'd say the fundamental characteristics or the possessions of what ah what entrepreneurs should be in Uganda as well xx ah have really highlighted there.

[0:47:06]

Dennis: So next question, as a university, out of 100 of the student contact time 100% of your student contact time, what percentage is devoted to each of the methods below in equipping students with entrepreneurship skills?

So there are a number of ways in which to equip students with entrepreneurship skills one is curricular as in class so in class activities that focus mainly on delivering entrepreneurship skills through an academic setting perhaps with an exam at the end of it all.

The other one is extra-curricular completely outside of class, non-academic program no requirement to participate in the curriculum, usually through entrepreneurship societies and this kind of stuff.

The other one is co-curricular it is somewhere in-between activities that complement in some of what you teach in class.

So of the three and given what is given how much time you spend with the students what percentage is devoted to each of these methods in equipping your students with these entrepreneurship skills? So I'll start with ah xxx

[0:48:08]

L7: so with the metric percentage how are we going to measure?

[0:48:12]

Dennis: It's up to you ah you don't have to be very specific just generally speaking. Lecturer number one

[0:48:17]

L1: Lecturer number one I think method number one curricular it takes about 70% yeah then ah other activities 30%

[0:48:31]

Dennis: Co-curricular and extra-curricular do you engage with extra-curricular as much as you do with co-curricular? Just to give you an example, co-curricular uhm activity might be inviting Bitatule to talk about ah to talk to the MBA students in the innovation class how he started his business and based on that you might ask them ah to make a presentation of a sort to reflect on that as part of an assignment.

[0:49:05]

L1: yeah we do that, we do that ah we apart from curricular ah for instance we have an arrangement with the xx business school where by we attach our students MBA students, we team up our students with their students and they go to the xxx and see how entrepreneurship is being carried out, they visit, they interview collect data then at the end of the day write reports then they come and present. So we are not completely on curricular, yeah that's why ...

[0:49:51]

Dennis: Yeah any other

[0:49:52]

L2: There's I think I also know one way I don't know when whether this is where we invite ah the Uganda Registration Service Bureau eh that we want our students to be hands on like even if we're teaching them theory in class we bring those people from URSB they show exactly what they do they ah bring some of they bring some of their manuals and they show actually what they do the power points and the whatever so ...

[0:50:27]

Dennis: In terms of percentage, what are the percentages then for you lecturer number two curricular, co-curricular, extra-curricular what spread in terms of percentage contact time of your students?

[0:50:39]

L2: I think ah eh I think the spread curricular is around 70% and then co-curricular 30%

Dennis: And no extra-curricular

L2: Ah extra-curricular maybe we that's when we can engage students in the field for example in entrepreneurship department we have students that we take to for example teaching about service sector management, we take students to go to see the tourism ...

[0:51:14]

Dennis: so that would be co-curricular, it's part of the assignment but the assignment is outside the class so that is co-curricular, extra-curricular completely you have nothing to do with it it'll be let's say the entrepreneurship society which I have visited before here actually. So they go away and they do their own things but there are somehow around the enterprise and entrepreneurship.

[0:51:32]

L2: How do we how do we correlate the ...

Dennis: I know for instance that Dr Abaho who is their patron would have some percentage of time of interfacing with these on an extra-curricular perspective.

[0:51:46]

L2: Oh now we have ah an association called MUESA.

Dennis: MUESA, yes

L2: So now these students we somehow we have limited intervention as lecturers and then we let them go and do their own things for example they come up with an idea for example these people ah came up with an idea of selling liquid soap and they target the university maybe the university can procure and use in its own structure so and other products they come up with as students. Of course giving them a challenge as lecturers to go and think about what they can come up with as students and they sell ...

[0:52:28]

Dennis: So for you lecturer number two you're saying 70% is probably curricular and the other co-curricular but you don't engage as much with the extra-curricular?

L2: Yes

[0:52:37]

Dennis: Okay that's fine, also percentage wise generally speaking I'm trying to rush through the questions.

Lx: Ah generally speaking I think, the curricular bit takes off , I facilitate on entrepreneurship development and then ah diploma managing business management and growth, so most of the time I dedicate it to xxx but again we have we have an incubation centre anyway so where we actually open about students and lecturers and actually the outside community can come up with their ideas anytime anywhere and then they see, so under this we have now non-curricular kind of thing where we have ah innovation hour every Wednesday of the month some people come and then Dennis Aguma comes and takes them through xxx about maybe a certain topic of entrepreneurship and there is no academic writing xx then we have ah business plan competition where they are told to come in and then participate in a boot camp we have a boot camp innovation express things like that and then we have an innovation café as well.

So I think through that those ones who are actually able to come to find time and come they're being able to also learn I think those are some of the methods that you xx

[0:53:56]

Dennis: Okay, any deviations from the 70% to the others? Okay good

Uhm so based on your teaching experience, which of the above methods do you think is most effective and why? So curricular, co-curricular, extra-curricular bear in mind the skills we have talked about earlier so which of these three do you think is most effective in equipping students with entrepreneurship skills? Not for them to remember what a business plan is but to make them entrepreneurial, which of these three do you think is most effective and why? Ah lecturer number six

[0:54:32]

L6: Yes ah last semester I was teaching certificate in Business Administration and we tried to give them the theory of entrepreneurship how to start a business but then we told them to start businesses hands on, so when they started now these guys had to come and xxx how can I start a business xx an idea how can I recognise an opportunity what do I have, what must I have we told them.

Then they made sure that they started they got ideas and started businesses all of them the whole class they started businesses from me and my colleague we realised that this kind of assignment or teaching method was more effective because people would get hands on experience they would know if we talk about feasibility study we told them if you have gotten an idea go and make a feasibility study now they went and learnt how to get or to know whether the idea will be feasible or not, they learnt that I'm sure that even if they forget all the theory when they go to start their businesses that experience will help them.

[0:55:40]

Dennis: So you're xx co-curricular is more effective in giving the students those skills than curricular?

L6: Yeah

[0:55:47]

Dennis: Lecturer number five

[0:55:51]

L5: Yes ah whereas theory is important especially to give them knowledge on how to do because you know how much you're telling them to go and do a feasibility study but you might not know what exactly to do if it's not backed up with theory, yes so but they learn more when they do these things practically and hands on yeah. But it should be backed up with theory just like the way I said.

[0:56:22]

Dennis: Okay lecturer number four.

[0:56:25]

L4: Yeah I think I agree with her and all of them though I would recommend co-curricular than extra-curricular because something you have done yourself you can never forget it actually because I also do the same in my class, I'd tell them go to the field and maybe you make some interviews and analyse people's businesses and see what they do and ah actually when they would come back to present they would you would see that someone has really gotten the skills so I think co-curricular and extra-curricular is better than curricular because if it is something practical you can easily remember than other theory things. I actually do not like theory so...

[0:57:14]

Dennis: Okay, ah okay so generally speaking there's ah you all conquer that ah curricular sorry co-curricular and extra-curricular provided it is backed up by theory is more effective.

[0:57:29]

Next question is to what extent then is the choice of curricular, co-curricular or extra-curricular to what extent is that choice influenced by the university's teaching policy and guidelines? So while you spend 70% of your time teaching students entrepreneurship you agree now that the more effective side is co-curricular and extra-curricular yet you spend most of the time the other side.

So to what extent that is the above disparity influenced by the University's teaching policy and guidelines? Lecturer number one

[0:58:06]

L1: Thank you, I think the university's policy and guidelines here in Uganda is more of the curricular than the co-curricular and extracurricular actually that one is really on the lecturers' innovativeness. They are the ones who do it because they feel it is needed but the university's policy and guidelines are not fully supportive if they do it is to a small extent maybe 10% ...

[0:58:43]

Dennis: Okay so let me understand so what you're saying is that to a greater extent like 90% the delivery of entrepreneurship education either at MUBS or the vast majority institutions in Uganda is dictated by the university's teaching policy and guidelines and most of that favours curricular ways of teaching?

[0:59:05]

L1: Yeah that's very true

Dennis: Okay,

[0:59:07]

L1: Ah we have a course outline that is approved by the university and the moment you introduce extra-curricular co-curricular sometimes it is not approved.

Dennis: okay

L1: And they approve more of the other side the curricular.

[0:59:23]

L7: Maybe to add on what Dennis said still I will emphasize this that's why next week Thursday in the class of entrepreneurship in Makerere we are not going to have any or 10% of the class graduating with a start-up why because they've been taught how a business is done and then an exam and then given a mark so really if you don't see that it's important as you as a lecturer to involve them in this

other thing you are most likely not to and actually to produce a very good theoretical entrepreneur yeah.

[0:59:54]

L5: Okay maybe can i add ...

Dennis: Yes lecturer number five

[0:59:58]

L5: Lecturer number five I think the whole the whole problem comes ah to when it comes to marking

Dennis: Evaluating whether the student has learnt or not?

L5: Yeah so the way we examine I think we can, the curriculum has been made in a way that people must sit for exam for them to pass so that is why more emphasis is given to theory than it is given to the practical or hands on training because at the end of the day even if somebody came up with a business I don't think they would earn marks for it so that is how it gets that is how co-curricular activities and extracurricular are not supported in one way or the other.

[1:00:49]

Dennis: Because of the challenges in examining whether or not the student has actually acquired the skills you originally intended because of those challenges? Okay

[1:01:00]

L2: Let me add one

Dennis: Yes lecturer number two

[1:01:02]

L2: I think eh we are having challenges where by eh we are questioned whether we are a vocational school or a university when we engage more of training creativity or co-curricular activities for example when we try to make eh more of our students more practical, eh we find that we are creating a conflict of interest with our neighbours for example we may say that if a student studying entrepreneurship and then maybe we, the way we are going to examine him is within creating businesses and it's going to be part of the examination and we say that maybe our students are for example entrepreneurship students are going to come up with new projects and you know in the process of coming up with those new products or services you're going to find they are going to be doing more of the vocational what the vocational work.

[1:02:04]

Dennis: Do you think then, that there's ah a legacy chain given that this was the national college of business studies before it became Makerere University Business School, so do you think there are some residual elements of that mind set to have xxx into the current systems?

[1:02:18]

L2: I think, it is slowly by slowly it is being ah revived but I think that has been the problem.

[1:02:27]

Dennis: Okay, uhm I'm trying to rush through these questions now because I'm mindful of the whole xxx ah so keep your answers very brief.

On a scale of 1-10, and be very flexible on this one to what extent do you think that MUBS students are entrepreneurial, MUBS students here do you think your students are entrepreneurial? Lecturer number two 1 being the lowest and 10 being the highest?

[1:02:52]

L2: I think ah I can give seven to eight (7-8)

[1:02:57]

Dennis: Lecturer number one

[1:02:57]

L1: Five

[1:03:01]

Dennis: Lecturer number four

[1:03:03]

L4: Eh I think like four (4)

[1:03:07]

Dennis: Lecturer number six

[1:03:09]

L6: Five (5)

[1:03:11]

Dennis: lecturer number six

[1:03:14]

L6: five

[1:03:16]

Dennis: Lecturer number seven

[1:03:19]

L7: I think it's a scale of 4 rather four I would give four.

[1:03:21]

Dennis: Okay; Relative to other universities such as Makerere University, Kyambogo, UCU, how do MUBS' students compare in entrepreneurship skills? This is based on your own experience ah how

do you think your students relative to these other universities. Do you think your students are better, do you think they are at par do you think they are below, justify your answer. Lecturer number seven

[1:03:43]

L7: Well I think MUBS students are okay because ah we normally teach entrepreneurship development across all programs so if you are doing procurement or marketing or xxx which is ah which could probably lack in other universities in ah it may not cut across all the points ...

[1:04:01]

Dennis: when you say that xxx, do you mean they're at par with these universities that I have mentioned?

[1:04:07]

L7: Ah they are even better

[1:04:10]

Dennis: They are better, now that's sufficient. Lecturer number two

[1:04:14]

L2: Ah I think we are far better, yes we are far better because I think you've been in Makerere you've been with the entrepreneurship students, I think you're very sure that some of them have been bench marking from our MUESA students things they have been doing and they ah of course you've been with some of the lecturers you find that some of the things they are bench marking from our entrepreneurship department. So that typically shows that we are far much better and we are the leading in terms of...

[1:04:48]

Dennis: It is one thing though what you're doing and then bench marking and it's another whether or not the products the students are entrepreneurial or not , so far the question is relative to these other universities, do you where do you rate these students do you think they are better or at par or below?

[1:05:04]

L2: They are better.

[1:05:05]

Dennis: Lecturer number five

[1:05:07]

L5: Yeah I think I think we are better MUBS is better reason I think which ever course the student is doing at MUBS, by the time they leave they will be conversant with what it takes for them to start a

business and they've been empowered even those that whose mind set has not yet changed and they think that may be getting employed is the better way I think at least they know that when they fail they have a better option. So I feel our students are better are better than are better prepared to be entrepreneurs than any other students from other universities.

[1:05:47]

Dennis: xxx I won't bother lecturer one, next question; what do you think is the industry's view of your students' entrepreneurship skills, MUBS students as well as other institutions. Because you think that your students are entrepreneurial do you think the industry, the market, the employers do you think they rate your students as entrepreneurial or not? Lecturer number five

[1:06:08]

L5: Yes lecturer number five, ah I have been at the department for five years and ah fortunately I did this same course entrepreneurship and small business management and but for all the time that I was doing my bachelors' and then masters' at least I was contacted by four organisations they wanted to hear xx in the development of the curriculum ah the entrepreneurship curriculum so it makes me think that the market outside there really treasures what we have and especially now that entrepreneurship is thriving and people are thinking even doctors should study entrepreneurship we are wanted or we entrepreneurship is needed.

[1:06:57]

Dennis: And that is MUBS as an institution or do you think generally speaking that the industry thinks that students who are leaving the university are entrepreneurial?

[1:07:05]

L5: The industry

[1:07:06]

Dennis: Okay, any other ...

[1:07:09]

L2: Yes

Dennis: The deviations or?

[1:07:12]

L2: No it's not a deviation eh because now eh when you look at the ah our students you know entrepreneurship does not stop at creating your own business we have xx entrepreneurs uhm people who are ah creating value or adding value thinking for organisations. So you find that ah last year I supervised a certain student eh in a certain organisation and they were really thanking much

MUBS for this course because this student they confessed that this student is adding value on their organisation in terms of ...

[1:07:52]

Dennis: So this is ah a very interesting because ah in your uhm leaflets page number 12 is research which was done by CVI again this is a UK context where ah most entre ah in terms of most important skills employers were looking for compared to ah the confidence ah the employers and the graduates have in those skills. There was an obvious disparity, so lecturers like yourselves were confident that the skills the students are entrepreneurial they have these employable skills and just when we asked the employers, the employers were struggling to find staff to fill positions at graduate level with those skills. So do you uhm recognise this disparity in the Ugandan context?

[1:08:45]

L2: Yeah

Dennis: Because now that will be conflicting with what you've just said where you think that the students are entrepreneurial and that the industry acknowledges that could it be that this market is different?

[1:09:00]

L7: Absolutely if this is actually a research report ah it in Ugandan context it is true ah also. Industrialist or employers they ah I am giving a general overview not only MUBS, they really rate graduate ah kind of ah quality low there's a big mismatch between the ah what is required on the market and then what these guys are able to do, so ah I think because we've not had an opportunity it is only three internships which is actually also ah into under a curricular that you are supposed to do this and that and then it is a short time, they are not able to have much time with this student to really see ah how are their skills enhanced. So when they graduate like next week they are graduating no one can actually go and take on a job on his own even when there's training done so that is true eh in all over the employers are complaining of this thing.

[1:10:01]

Dennis: Lecturer number one

[1:10:02]

L1: Yeah thank you, ah I agree with him ah there are many graduates in Uganda and for this case we are looking at MUBS, I have had a chance of supervising some graduates different graduates elsewhere not here and I can I will tell you that the students of MUBS are unique. But MUBS students cannot represent the entire country so if they are only 20% then generally the employability skills are low but as MUBS we have got reports that our students are xx but if it is MUBS alone I think it is not even 20% it's like 15 or 10% of the graduates in Uganda so generally the

general view is that there are low skills, but for us when we go out to the field me I have a xx to supervise from there I was heading some section and there were many graduates I could see the difference between these students and other students.

[1:11:19]

Dennis: So clearly there's a general mismatch between an average student with the industry in terms of skills even though a MUBS student is slightly at an advantage, but you agree that there's that mismatch. Ah what do you think is causing that mismatch? And why aren't universities bridging the gap fast enough?

[1:11:46]

L1: Ah thank you, lecturer number one, what is causing mismatch to me I feel it is the kind of education no, the private system of education that was brought in Uganda was ah that Uganda has employed. We have about 50 universities that and out of those 50 universities, around 43 are private universities so for them all they are looking out is to chun out students and more students is more money without necessarily emphasizing skilling the Ugandans. There are only a few government universities about 8, government universities the objective is different and the private universities the objective is different and they are producing more than government universities. So to me I feel that is the challenge that is what is causing xx. But when you meet a student from Makerere University, Kyambogo you will not find those exaggerated grades but you find they know what they are doing but meet a student from UCU just rubbish...

[1:12:56]

Dennis: Any Divergence

[1:13:00]

L5: Yes, to me I think it's because me I would attribute that to bureaucratic tendencies uhm yes at times you know there's a demand of a certain ah of a certain ah when a certain sector needs a certain skill like I have met people who have said can you train people on how to collect ah people's debts?

Dennis: Debts?

L5: Yes debts ah if like someone if I borrowed someone money something like that ah there was also a demand of ah skilled personnel in ah real estate now right now we have a degree uhm a bachelors' degree in ah real estate management okay, but it really takes long to before they are credited by the National Council for Higher Education so to me I just feel there's a lot of bureaucratic tendencies and because of that we have some mismatches and then a few people are involved in decision making like for example a course can be very good but since MUBS it is required by MUBS to go to MUK to the senate and then they discuss sometimes

I'm just thinking maybe I'm feeling maybe because they are few at times a good course is dropped not because it is not necessarily irrelevant to the market but because the academicians think so.

[1:14:36]

L7: Maybe

Dennis: Ah I'm sorry to interrupt but I am mindful that we are running out of time and the next phase of the questions is actually the significant one

[1:14:45]

L7: Actually you asked why, why the mismatch but I ah I just wanted to tell you that the industrialists or the employers are saying we are teaching totally different things that even they want ... completely so if you're not teaching digital marketing xxx when these guys are xxx away of ah your graduate is just there with his marketing knowledge which is not relevant so that is what they are saying, actually there's also a national bureau of education where they want to put a ah a compulsory apprenticeship for compulsory arrangements with companies to take on graduates for xxx even when they have graduated yeah.

[1:15:25]

Dennis: Good observation. So the last section of this xx which is about, it's a key part of this research is to explore the extent to which the wider environment or entrepreneurship eco-system affects the different methods of teaching entrepreneurship education, so I'm using ah entrepreneurship xxx as defined by Isenberg, and these, these are the members of the entrepreneurship environment, so I think on page ah one and page three xxx but some research suggests that if you look on the first page of the things that impact on who you are personality, your character, your tribe, uhm basically what happens within your micro-system at perhaps at home then around that the wider major system so what happens with your cousins when you've gone for Christmas that kind of stuff. So clearly the environment in which someone is based impacts them in one way, shape or form, for an entrepreneur that's the entrepreneurial eco-system which is this xxx of entrepreneurship so back to the question,

Uhm to what extent do you think that these eco-system factors, collectively and without being very specific, affects the student's entrepreneurial mind-set and skills before they come to university? So these six areas and the xx do you think that they affect the students before they come to the university from an entrepreneurship perspective? Lecturer number five

[1:17:08]

L5: Just ah yeah ah the eco-system I'm just looking at one ah the culture uhm I've given this example over and over again of my village mate who called me and said my son did not graduate I checked his results and he had scored a second class upper, so I asked him why do you think he did not graduate and he said but he did not graduate I checked his results and he had scored a second class upper so I asked him why do you think he did not graduate and he said it's because he said he is selling popcorns so now that takes me back to the back ground like he is thinking he should be a banker he should be something else not necessarily an entrepreneur and more so selling popcorns so that is one.

Then secondly, ah the second one is some of these people some of these students are not studying something that they exactly that they are exactly passionate about ah sometimes it's either they are on government sponsorship or sometimes it's because that is the money that the parents can afford, so that environment affects them in one way or the other actually you find that they are out of shell after they have studied their bachelors' so the question is you are not teaching him something that he loves he just wants to pass then he gets a degree and that's all, that is my take.

[1:18:35]

Dennis: Anybody else who disagrees?

[1:18:38]

L2: Okay me it's not disagreeing but still I'd go to terms in of social I will integrate social and success stories. You know family ...

[1:18:53]

Dennis: Because the next question is about each of these individually, so the first question was collectively like generally speaking

L2: Then I agree

[1:19:00]

Dennis: Then you agree, okay then I'll go to the next question. Uhm so to what extent do each of these eco system factors affect the mind set of entrepreneurs before they arrive at the university, so very quickly yes or no but if you have an interesting example it'd be lovely to be capture it, one of the ah components is ah culture and ah this one is very important for you especially because the culture is not homogenous you know you have ah people from North people from East people from the West even within the west we have Bakiga Banyankole, Banyoro, Batooro, Bafumbira and either of those might ah demonstrate different characteristic traits and entrepreneurial traits. So to what extent do you think before students come to university culture plays a significant role in the extent to which they are entrepreneurial or not? Their mind-set xx lecturer number six

[1:19:56]

L6: I think the extant is about maybe even 80% because if I could give you an example that I was teaching one class and I asked a class of 52 students they were doing xx business class I asked them how many of you thought of this course before coming to the university I got two people the rest said we are here accidentally we wanted something else but then something else came and we decided to take it on so you see even their parents they say I want you to be a doctor before even they go to university they give them careers by force, because they see a neighbour has a lawyer they also come and say I also want to get a lawyer so you're going to be a lawyer now these people they grow up even the parent will influence them to take them to schools that you know have or produce best lawyers so this one is a big contributor.

[1:20:53]

Dennis: Okay, you all agree?

All: Yeah

Dennis: Any other interesting example?

[1:20:56]

L5: Yes ah looking at how uhm if look uhm if we go triballistic ah if you look at ah Baganda by nature for them they are xx at marketing and business that you compare them ah maybe to Banyankore uhm what do I mean ah I have always given I have always looked at this example one day I went to Mbarara and I was going to buy a cloth uhm the woman looked at me and said can you afford it because it's 80,000 shillings so because I had been to Kampala I just felt like what is she even trying to talk about cut the story is so different from Kampala what xxx uhm they will tell you uhm so they were like how much is it probably it is 80000 but you tell them it is 10,000 they'll tell you that is money so just the gain from that and in which colour do you want it.

So I just feel like sometimes culture has xxx.

[1:22:06]

Dennis: I'd like to xx on that, do you think it is because Baganda are naturally enterprising or do you think a lot of it has to do with the fact that they are in the capital city or do you think that there are some colonial aspects given the way most of the westerners were identified as civil servants by the colonialists, northerners are security xxx you know that ah what do you think is the line do you think it is generally culture? Traditionally Baganda have always been like that or do you think that there are some other historical factors or may be geographical factors that affect xx.

[1:22:36]

L5: yeah I would attribute to basically two factors one colonial because these ones because I think for them they are more exposed than other cultures and then two xx there's another point

Dennis: is it ah geographical is it ah

L5: Yeah being also an urban area yeah.

[1:22:54]

Dennis: You all agree?

All: Yeah

[1:22:58]

Dennis: Ah next one is the human capital those are the items in ah yellow so you are talking about education institutions, infrastructure, all these, do you agree that these impact greatly the extent to which students are entrepreneurial before they come to university? So for instance if you are talking about education you say the schools that people usually go to do you think that they shape their entrepreneurship skills before they come from university or do you not think that they are only studying physics and chemistry so the no one is worrying about entrepreneurship skills.

[1:23:34]

L1: The schools do influence ah the students before they go to university because some schools, secondary schools even primary they introduced them to the subject of entrepreneurship before even getting to university and ah while some do not so I have a feel that they have students normally have that important orientation they don't find it at university at something new they find something that is they have started on an earlier stage.

[1:24:12]

Dennis: I will rush on to the next one, policy typically government policy but also other regulators to what extent does this affect the students before they come to university from an entrepreneurship skills perspective, do you think it is very significant or government really has nothing to do with students being entrepreneurial?

[1:24:30]

L7: Yeah government actually policy it has ah in two things I'd say they have just woken up just of recent you see that they are the reason why people had to go to school was basically a numerous level, they know how to read and write and the remaining graduates re xxx with unemployment that's why now we want to bring in the policy of encouraging now the president was meeting the staff last week he was telling them you guys can you use your courses to promote wealth creation, but how can you promote wealth creation using xxx programs without having to xx mind-sets. So you really see that policy if it is a government policy right from the ministry of education that you guys going to study pharmacy after studying pharmacy you need to do entrepreneurship to be very competent xx without it that's why we are having all these.

[1:25:22]

Dennis: Again I'm mindful of your time so I'll rush through these ones. Ah the next one is finances. Also remember that these may not affect the student in the same way so for instance the student may not interface with finance but somehow the invisible hand of government from a policy perspective might be xx the student. So finance is one of those where you are either in or xx do you think xx the students' entrepreneurship skills before they enter the university?

Because with finance you're looking at ah you know capital, loans, venture capital funds I don't anticipate that lots of students are engaged with banks xx say for paying school fees okay.

So then the other one is the robustness of markets so markets are very different from the things we were talking about digital markets, ah so the Ugandan market might be different you know the Ugandan middle East market will be different from a London xx super market experience, so does a student interface in those markets given the Ugandan markets the way they are do you think that impacts on the extent to which they are entrepreneurial before they come to university?

[1:26:41]

L2: Yes I think ah to me ah I think it triggers the mind-set of a student to see for example those who grew up in their father's businesses or those who've worked in such markets and they see the impact of such businesses those markets how fruitful they are someone says that a xx than sitting in someone's office and you're giving me 100000 shillings why shouldn't I make my own business and maybe I start like someone like giving an example of that person so that business so bringing in much money so like I think it motivates such students and they really see that they such businesses in those given markets are making much money than someone who will be employed by some other business.

[1:27:41]

Dennis: Last one is the support these are all the other bits that support entrepreneurs so if you established as an entrepreneur you'd have you know ah chamber of commerce ah xx but they are much more than that we have government organisations you have church, you have after school clubs, and all the other aspects that support an entrepreneur do you think there is a significant number of these that are impacting on the students' entrepreneurship skills before they come to the university or is it just students at school typically and mind-set.

[1:28:18]

L5: I think it is to a large extent.

[1:28:22]

Dennis: So then the next question is, do you think these aspects of entrepreneurship eco-systems we've talked about continue to affect the student's entrepreneurship skills whilst they are at university? Because we have talked about before they came to university when they are at the

university this culture that we were talked about, you could be coming from Gulu for instance to Kampala obviously you are in a different cultural environment it's almost like ah a melted pot, the human capital of a policy of higher education institutions is going to be different do you think that these aspects continue to affect the students when they are at the university?

[1:28:55]

All: Yes they do

[1:28:58]

Dennis: To what extent? Less extent compared to ah before they come or to a more extent...

[1:29:05]

All: I think to a larger extent

[1:29:07]

Dennis: Yeah I would have thought, then the next question is uhm on a scale of let's say 1-10, to what extent do these aspects of entrepreneurship eco-system influence your Entrepreneurship Education curriculum design so the choice and content of the teaching methods the curriculum content of the teaching methods we were talking about mindful of these of the impact of this eco-system to what extent does that influence your choice and content of entrepreneurship education or is it the same case of the xx of the university tying your hands as it were xx. Lecturer number one

[1:29:56]

L1: Yeah thank you, we are we are rating on a scale of 1-10?

Dennis: Yeah but you don't have to ah you be flexible you can say to a less extent great extent so when designing the curriculum xxx

[1:30:10]

L1: To me xx to a great extent because when you are designing the curriculum most of the time we always try to see what these I mean what are these components of the eco-system require us or what do the students what should what kind of students should we produce let's say for the finance industry what kind of skills do we need to impart so that they are able to fit in the environment out there so to me I feel to a very great extent these components of the eco-systems ah influence our curriculum design at university.

[1:30:50]

Dennis: Okay, you agree as well, do you agree that they ought to influence do you agree that they actually influence?

[1:31:01]

Lx: They actually influence

[1:31:05]

Dennis: Okay, uhm almost last question, with regards to aspects of the eco system we have talked about, have there been any significant observable changes over the years to suggest that the impact of this eco-system on the students' entrepreneurial skills has changed over the years or could potentially change? So these are the areas say in the last five years you have been in academia have you seen significant changes in this eco-system to suggest to you that this eco-system we are talking about is likely to have a more profound significant contribution or effect on your curriculum design and delivery of entrepreneurship education.

[1:31:47]

L5: Yes

Dennis: And if you say yes also which particular aspects have changed greatly relative to their ... lecturer number five.

[1:31:56]

L5: Yes especially in terms of policy I think the government has come to know that entrepreneurship is a very is a driver to economic development. And it has come up with programs like skilling Uganda it has ah it has injected a lot of money in different incubators generally they are trying to empower the youth with practical and hands on knowledge and reduce on the problem of unemployment. Yes and ah this policy comes in with the finance and that's also the culture is changing because if we look, now that there's a problem of unemployment I think also our employers are beginning to appreciate that maybe safe employment is a better way to go yeah.

[1:32:48]

Dennis: Any other thoughts?

[1:32:50]

L1: If I give, if I give an example of ...

Dennis: Lecturer number one

[1:32:54]

L1: Yeah, of financing government still has been able to provide ah finances to the youths to be able to start up something to be able to do some businesses like youth livelihood skills have been introduced over time to be able to provide finances, government has also xx ah money to banks to be able to support to the youths to be able to do something xx activities in Uganda.

[1:33:24]

L3: Ah maybe if I could give my view given the opportunity I got to teach at university and most importantly entrepreneurship, I want to really be a disciple of change xx see not only to teach but the truth is without business models that work even when these eco-system players are in place,

really not able much but I see the university at the centre of the field to influence because we are at a collection point of everyone else in the whole country so I think it ah these ones they are I see a lot of ah things coming up and then ah incubation centres are coming in to help in changing mind-sets probably which could have xx duties of the culture and the market the finances people getting money and then policy also changing like Phionah said you really see probably entrepreneurship would be enhanced yeah.

[1:34:28]

Dennis: So are you all xxx, this is the last question before you leave, is there any other question that you would want to ask ah that you felt from the discussion I could have asked but didn't ask, lecturer number five. And then we'll take a quick picture of all of us and we finish.

[1:34:51]

L5: xxx uhm I okay I have a keen interest in entrepreneurship eco-system and ah okay like I would have been interested in ah in how co-ordinated all these eco-systems entrepreneurship eco-system are actors ah are related or impact on each other, I don't know xxx

[1:35:26]

Dennis: Yes so what I didn't and I think as ah someone who is part of this you are entitled to know this information at this stage, I have already done a survey asking lecturers and asking the students I have also asked the lecturers if they happen to have participated in the survey they were writing the extent to which each of these affects you know entrepreneurship skills, so I already have data and part of my questions here uhm are going to enrich the connection that I have between the various aspects of entrepreneurship eco-systems the various teaching methods and the entrepreneurship skills the other side so there are three particular aspects and some of the stuff that I am trying to dig in to with my interviews is to see whether this eco-system can be looked at as one animal or whether ah each of these is ah separately significant that when you're talking about an eco-system you could stubbornly simply say I'm going to focus on only finance and culture or do you have to deal with them because eco-systems you have to deal with them collectively that's the understanding but if I don't find there's a relationship between the collective and the separate.

So those connections you're talking about yes I do have them however I'm also limited by time and ah as you know eco-systems are very interesting once you dig into them you could be able xxx. So some of the questions I have rushed through them but I hear you and that's my ultimate connection in PhD they are trying to make sense of all those connections to bridge that gap between what is happening out there, what is happening within high education institutions and in the mind of the student to make them entrepreneurial so that is the xxx connection that I'm trying to xxx.

So the students xx in the middle on the other side of the industry and the side of the university is how can these be connected but there are surveys there are interviews and I'm going to be interviewing people in business incubation centres I might actually do one with the incubation centre I have innovation village among others so I am asking almost similar questions and I'll connect dots in due course.

[1:37:39]

Dennis: Any other questions?

[1:37:43]

L1: Ah thank you I am lecturer number one given you're experience of Uganda and UK actually I'm interested in UK how is ah entrepreneurship taught or imparted to the students in the UK as compared to what you're seeing around?

[1:38:01]

Dennis: Okay, ah what I'm going to do because we will not be fair on this gentleman who was going to leave, I was going to suggest that I terminate the interview we take one quick picture of all of us and then I respond to this question, because it might lead me to another question I don't know whether you know that xx.

But otherwise thank you very much for ah sparing your time I know that you've been marking and very busy so thank you very much, so interview terminated at 17:37.

END [1:38:30]