

NETWORK CAPITAL: HOW UK SMEs RECOGNISE ITS VALUE IN THEIR INTERNATIONAL
STRATEGY?

PHILIP T.R. BRIGGS

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To Professor Mariane Cavalli

“Everything is possible”

Abstract

This study addresses a gap in knowledge about Network Capital (“NC”), and the extent to which it is understood by Small and Medium Enterprises (“SME”), and its perceived value to them in strategy creation and internationalisation. The research is focussed on the United Kingdom (“UK”) as representative of a developed economy operating within a democratic and secular society.

Since Huggins and Johnstone introduced the concept of NC in 2010, its potential to unlock extrinsic value has been recognised by academics including Alinaghian and Razmdoost (2018). This offers the opportunity for organisational *Firm Specific Advantage* (“FSA”) as described by Almodóvar and Rugman (2015) and which builds on the *Resource Based View* (“RBV”) of Barney (1991) and the *Dynamic Capabilities* (DC) of Teece *et al.* (1997).

Previous UK studies have focussed on either a single aspect of NC or a narrow geographical area. While the economic and societal importance of SMEs is recognised, there is no understanding of how they exploit their NC in their strategy and internationalisation. This study addresses that omission on a UK wide basis. The study also aims to inform policy makers and establish the practical use of NC by SMEs.

A research methodology was developed to combine quantitative, qualitative, and case study approaches. Questionnaires and interviews were adopted as the primary source of empirical data. The research found that while NC was adopted intuitively by many SMEs, a few leverage off it as a resource with the deliberation identified by Huggins and Thompson (2015).

The findings have implications for business management teaching, and government as the potential to convert FSA to *Country Specific Advantage* (Almodóvar and Rugman, 2015) is not being realised. The research proposes a model to address this lacuna.

Key words: SME – UK – Networks – Strategy – Internationalisation – Dynamic Capabilities

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Contents

Chapter 1	Introduction	11
1.0	Introduction	11
1.01	Contents.....	13
1.1	Research context.....	13
1.2	Research background	25
1.3	Research question.....	31
1.4	Research plan	33
1.5	Research objectives.....	33
1.6	Research scope.....	34
1.7	Research limitations	34
1.8	Research definitions	35
1.9	Research contribution.....	35
1.10	Research methodology	36
1.11	Research structure	36
1.12	Research challenges	37
1.13	Introduction summary	37
1.14	Thesis structure	38
Chapter 2	Literature review	40
2.0	Introduction	40
2.01	Contents	40
2.1	Networks – moving to centre stage	41
2.1.2	Networks in practice	42
2.1.3	Network value	48
2.1.4	Network risks.....	55
2.1.5	Network governance	58
2.1.6	Networks and Strategy	62
2.1.7	Networks and internationalisation.....	64
2.1.8	SME culture	68
2.1.9	External influences	70
2.2	Networks – theoretical review	74
2.2.1	The evolution from Schumpeter to Huggins and Johnston	74

2.2.2 Organisational drivers	77
2.2.3 Value creation	82
2.3 The research gap	96
2.3.1 Literature table and emerging Themes	97
2.3.2 Areas for further research	98
2.3.3 Networks: in the UK and SMEs	99
2.4 Literature Review summary	102
Chapter 3 Research methodology and design	108
3.0 Introduction	108
3.01 Contents	108
3.1 Methodological approach.....	108
3.2 Research design	121
3.3 Data collection	123
3.4 Ethics	133
3.5 Analysis	138
3.6 Review and conclusion	144
Chapter 4 Research fieldwork, results, and analysis	146
4.0 Introduction	146
4.01 Contents	146
4.1 Planning.....	146
4.2 Questionnaire survey	150
4.3 Questionnaire - factual Data.....	151
4.4 Questionnaire survey Results – Analysis	153
4.5 Interviews	167
4.6 Qualitative analysis.....	168
4.6.1 Interview analysis	168
4.6.2 Case Studies	179
4.7 Other insights.....	186
4.8 Research fieldwork summary	187
Chapter 5 Discussion	191
5.0 Introduction	191
5.01 Content.....	191

Network Capital: How UK SMEs recognise its value in their international strategy?

5.1 Overview of networks	191
5.2 Overview of Strategy	196
5.3 Overview of Internationalisation	197
5.4 Overview of discussion	198
5.5 Summary	199
Chapter 6 Conclusion	201
6.0 Introduction	201
6.01 Contents	201
6.1 Research questions revisited	201
6.2 Answer to research questions	202
6.3 Implications	204
6.4 Contributions	205
6.5 Theoretical proposition	207
6.6 Research limitations	213
6.7 Future research	214
6.8 Conclusion.....	214
 References	216
 Appendices	
Appendix 1 Questionnaire	233
Appendix 2 Interview questions	239
Appendix 3 Survey responses	240
Appendix 4 Questionnaire data	245
Appendix 5 Interview data	246
Appendix 6 Nvivo node analysis	247
 Schedule of figures	
Figure Title	
Chapter 1	
1.1 Business density by region	22
Chapter 2	
2.1 Participation drivers	50
2.2 Informal network governance	61
2.3 Paths to Internationalisation	67
2.4 Ownership governance	70
2.5 Organisations, external social conditions, and their impact	73

2.6	Organisational enterprise drivers	81
2.7	Network dynamics	91
2.8	Network benefits	95
2.9	Conceptual links	96
2.10	SME drivers	103
2.11	Thematic links	104
2.12	Concept analysis	107

Chapter 3

3.1	The theory process	110
3.2	Research structured approach	111
3.3	Selected research structure	144

Chapter 4

4.1	Geographical spread	151
4.2	Sector representation	152
4.3	Sense check model	169
4.4	Nvivo code mapping	173

Chapter 6

6.1	Linked networks	210
6.2	The paradigm of Perpetual Network Capital congruence	212

Schedule of tables

Table Title

Chapter 1

1.1	Top ten countries by nominal GDP	17
1.2	Ease of doing business index	18
1.3	Existing literature covering UK, networks, and SMEs	32

Chapter 2

2.1	Potential network members	45
2.2	Member relational links	48
2.3	Member attributes	57
2.4	Cultural sensitivities	72
2.5	Emerging themes	97
2.6	Research gaps identified and proposed for study	99
2.7	Research gap analysis	106

Chapter 3

3.1	Breakdown of all papers by method	116
3.2	Analysis of NC related papers	116
3.3	Method comparison	118
3.4	Mix method comparison	119
3.5	Sub-areas and data types	122
3.6	Summary of data collection choices	125
3.7	Questionnaire guidelines	126

3.8	Comparison of open and closed question attributes	127
3.9	Study observations summary	131
3.10	Sample definitions	132
3.11	Vulnerability and risk assessment summary	136
3.12	Human analytical challenges	139
3.13	Coding triggers	140
3.14	Critique of Content analysis	141
3.15	Theme identifications	142
3.16	Nvivo coding	143

Chapter 4

4.1	Breakdown by ownership and employee	152
4.2	Networks – growth	159
4.3	Networks – internationalisation	159
4.4	International strategy	160
4.5	Networks – International strategy	160
4.6	Networks – Government	161
4.7	Networks – Academic institutions	161
4.8	Questionnaire regression analysis	162
4.9	Business density band by grade	163
4.10	Survey, BEIS, and Nomis data	164
4.11	Sectorial definitions	165
4.12	Survey sectorial breakdown	166
4.13	Breakdown of interviewee by sector	167
4.14	Interview band scores	170
4.15	Sectorial breakdown	171
4.16	Interview regression analysis	172
4.17	Nvivo analysis	174
4.18	Affirmation of previous studies	176

Chapter 6

6.1	Contributing theories	207
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Abbreviations and acronyms

Acronym	Full title
AC	Absorptive Capability
Actors	Small and Medium Enterprises, government, and academic institutions
ANT	Actor-network Theory
BBC	British Broadcasting Corporation
BEIS	Department for Business, Energy & Industrial Strategy
BG	Born Globals
bn	Billion
BR	Business Relationships'
CBI	Confederation of British Industry
CoC	Chamber of Commerce
CSA	Country Specific Advantages
CSR	Corporate Social Responsibility
DC	Dynamic Capabilities
DIT	Department of International Trade
ESG	Environmental, Social, and Governance
EU	European Union
FAME	Financial Analysis Made Easy
FDI	Foreign Direct Investment
FE	Further Education
FSA	Firm Specific Advantages
FSB	Federation of Small Businesses
GBP	British Pound Sterling
GDP	Gross Domestic Product
HC	Human Capital
HE	Higher Education
HMRC	HM Revenue & Customs
HRM	Human Resource Management
ICT	Information and Communication Technology
IoD	Institute of Directors
IP	Intellectual Property
KC	Knowledge Capital
KS	Knowledge Spillover
LoF	Liability of Foreignness
MBE	Multinational Business Enterprises
MNE	Multinational Enterprises
NC	Network Capital
OECD	Organisation for Economic Cooperation and Development
OED	The Oxford English Dictionary
OEM	Original Equipment Manufacturer
ONS	Office for National Statistics
RBV	Resource Based View
SC	Social Capital
SCA	Sustained Competitive Advantage
SME	Small and Medium Enterprises
SMT	Senior Management Team

Network Capital: How UK SMEs recognise its value in their international strategy?

SNS	Social Network Systems
UK	United Kingdom
USA	United States of America
USD	US Dollars
VAT	Value Added Tax

Chapter 1 Introduction

1.0 Introduction

When a politician is reported to say, “F**k business” (BBC, 2018), it may or may or may not make news headlines. However, when that politician is the Secretary of State for Foreign and Commonwealth affairs in the government of the United Kingdom (“UK”), with ambitions to become a future Prime Minister (which were subsequently fulfilled), and talking to a group of ambassadors from the European Union (“EU”), it undoubtedly will. That politician, Boris Johnson, was speaking about the style of the UK’s withdrawal from the economic and political bloc (“Brexit”) it was leaving following the result of an advisory plebiscite in 2016. The bloc represented a formal international network of states acting in unity.

That explosive utterance held ramifications for any UK business operating within and without the territories of that network and in effect, put them on notice that they must make their own assessment of suitable arrangements for the withdrawal, and not rely on the state.¹ Whether this ‘noise’ was simple rhetoric, a reflection of governmental culture, or otherwise is for others to determine however, that it was said by a Minister who held a Great Office of State alarmed many in the international business arena (Shrimley, 2018).

Within that sector, those who may feel at most risk are organisations who cannot rely on survival through size and depth of internal resources alone; Small and Medium Enterprises (SMEs), who represent the ‘*who*’ in this study. They need alternative strategies which include reliance on their organisational networks. The SME sector plays a pivotal role as innovators, entrepreneurs, employers, and contributors to national productivity. The importance of SMEs to the economy and society represents the ‘*why*’ of this study.

¹This is not intended as political comment. It is to record the impact on business which resulted from a lack of consensus, and conflict in ideologies that existed within and across the political parties on the question of how UK should negotiate its exit from the EU.

Network Capital: How UK SMEs recognise its value in their international strategy?

This study considers the value created by those networks, 'Network Capital' (NC), and the appreciation of its practical application in the real world of business by SMEs. Networks are the 'what' in this study, and the perception of their value represents the 'how'. The concept of NC was introduced by Huggins and Johnston in 2010, and is later defined as,

"consisting of investments in strategic and calculative relations with other firms and organisations in order to gain access to knowledge to enhance expected economic returns, principally via innovation" (Huggins and Thompson, 2015, 104).

This study focusses on SMEs in the UK and the value they attribute to NC in forming strategy, especially in their internationalisation. The UK represents the 'where' of the study. The research is undertaken during the years following the Brexit referendum therefore data drawn from external sources reflect that period which represents the 'when' in the study. The decision to freeze the data reviewed over that period avoids skewing due to,

- fluidity in Brexit negotiations with the EU, and in addition,
- the economic shock resulting from the Covid-19 pandemic of 2020.

The study provides primary data which examines,

- Who – SMEs,
- What – the use of their networks.
- Where – the UK,
- When – post Brexit referendum (c.2018-2021),
- Why – the role of the SME sector in UK prosperity,
- How – SMEs understand, use, and value their networks with a focus on strategy and internationalisation; NC.

Previous studies have considered aspects of networks from an academic viewpoint, and not from perspective of those they are most likely to benefit. This study focuses on the question of whether and how SMEs recognise the value of their networks in; the growth of their business; the creation of strategy; and in fulfilling any ambition to internationalise.

1.01 Contents

The main headings for this chapter are listed below.

- Research context
- Research background
- Research question
- Research plan
- Research objectives
- Research scope
- Research limitations
- Research definitions
- Research contributions
- Research methodology
- Research structure
- Research challenges
- Introduction summary
- Thesis structure

1.1 Research context

This section sets out the context in which the research is set. It discusses SMEs, the UK, the role of SMEs in the economy, the SME relationship with the UK government, and institutional constraints; the ‘who’, ‘why’, ‘where’ and ‘when’.

Small and Medium Enterprises

As a body of independent and eclectic entities, SMEs are recognised as leaders of innovation and major contributors to economies and society (Iturrioz *et al.*, 2015).

SMEs are described by the Department for International Trade (“DIT”),

“The UK government definition of SMEs encompasses micro (less than 10 employees and an annual turnover under €2 million), small (less than 50 employees and an annual turnover under €10 million) and medium-sized (less than 250 employees and an annual turnover under €50 million) businesses” (DIT, 2020).

Due to the scope of the definition, SME organisations present in different forms with diverse backgrounds and objectives (Barney *et al.*, 2011). The main characteristics by type may be summarised as,

- reluctant self-employed, perhaps resulting from redundancy, whose aim is simply to survive and provide for themselves (Acs *et al.*, 2013),
- family businesses continuing a tradition with either limited or expansionist objectives (e.g. small-scale retail, farming, or fishing),
- entrepreneurs who have developed an innovative product or service, and who invest at their own financial risk or involve third party investors with an objective to exit at an appropriate point either by the sale of their business, or opening ownership of the organisation to others through offering equity,
- and those who qualify as an SME only by size but who are in effect a business unit that benefit from full access to all their required resources through parent Multinational Enterprises (“MNEs”), or institutional backing (such as Amazon in its formative days).

Their organisational objectives will be shaped by their internal culture. The main interest of this research are the entrepreneurial businesses (whether family owned or not) as,

- they are created out of choice,
- they are an important contributor to the economy through their ability to identify opportunities, diversify and convert knowledge into a commercial proposition (Acs *et al.*, 2013),
- they are more inclined to collaborate (Somhlahlo *et al.*, 2016),
- they develop personal networks (Neumeyer *et al.*, 2018),
- they wish to develop the capability to achieve growth (Valhne and Johnston, 2017) and,
- they are more likely to aspire to an international presence (Hsieh *et al.*, 2018).

These combine to create an organisational culture which is attuned to the dynamics within networks, and which is aligned to recognise them as a valuable external resource (Huggins, and Thompson, 2015; Hallam *et al.*, 2018). The next section discusses SMEs and the environment in which they operate before considering the UK.

SMEs and the macro-economic context

Castells (2000) makes the point that globalisation results in economies becoming interdependent which requires a new form of relationship between governments, their societies, and their networks as economic blocs. Globalisation has transformed the labour market too (Castells, 2000), facilitating the 'gig' economy at one level, and international competition for specific skills sets at another. As SMEs are significant contributors, governments want to ensure they are supported to compete in that dynamic global market.

Governments, including that of the UK of whatever political perspective, have been consistent in their rhetoric about recognising the value of SMEs to the economy as widely acknowledged in studies (Huggins and Thompson, 2015; Almodóvar, and Rugman, 2015; Oparaocha, 2015; Ruzzier *et al.*, 2017; Agostini and Nosella, 2017; Hallam *et al.*, 2018; Uzelac *et al.*, 2018; Irwin *et al.*, 2018; García-Ávarez de Perea *et al.*, 2019; Wild, 2020). As SMEs make up over 90 per cent of companies worldwide (Jordão and Novas, 2017), the contribution of SMEs is also societal in providing employment and wider community value (Iturrioz *et al.*, 2015; Schott and Cheraghi, 2015; Somlahlo *et al.*, 2016; Sanyal *et al.*, 2020).

Entrepreneurial SMEs and their networks are lauded as being of integral importance to the innovation and success of the UK economy by converting knowledge into commercial value including that achieved through their relationship with regional academia (Teece, 2007; Huggins and Johnston, 2010; Huggins and Thompson, 2015; Agostini and Nosella, 2017). Their contribution to '*National Capital*' (Sidhu *et al.*, 2015) and the extent of SME activity is regarded as a barometer of regional economic strength. This is supported by

evidence that where regions benefit from a strong network culture and which includes academia, this is reflected in their economic performance. This suggests the benefit can be recreated in weaker regions (Huggins and Johnston, 2010; Lawton Smith *et al.*, 2012; Huggins and Thompson, 2015; Salder *et al.*, 2020).

SMEs, government, and academic institutions are collectively referred to in this study as 'Actors'.

Sidhu *et al.* (2015) identified the links between macro-organisations (governments), micro-organisations (SMEs), and the institutions that significantly contribute to both business practice and policies (academia). The researcher wishes to explore this further as a secondary line of enquiry. Lawton Smith *et al.*'s study in the UK of 2012 and that of Oparaocha (2015) in Sweden and Finland, identify a misalignment between the support that governments provide, and that required by SMEs. This relationship is explored, and the potential to form an effective, agile network with a shared international objective is proposed in Chapter 6.

The United Kingdom of Great Britain and Northern Ireland

The UK has been chosen as the geographical location for study as it is representative of a modern, developed, secular, open economy whose governments purport to support business, diversity, Human Rights, and welcome Foreign Direct Investment ("FDI"). In addition, it is a small group of islands (except for Northern Ireland) with aspirations for a major global presence; ambitions which are challenged by its departure from the EU in 2021. Castells (2000) also observes that the UK economy is not under the control of MNEs underlining the importance of the contribution of SMEs. Therefore, the UK should offer an economy suited to organisational networks.

To consider the context of the 'when', it is worth reflecting the standing of the UK – both economically and politically – in the immediate aftermath of the UK leaving the EU.

Network Capital: How UK SMEs recognise its value in their international strategy?

Economically, the UK remains part of the ‘G7’ an exclusive group of countries and “*the only forum where the world’s most influential and open societies and advanced economies are brought together for close-knit discussions*” (G7, 2021). By this definition (one provided by the UK government) it is not, therefore, purely a forum for the seven largest economies. The membership at the time of the study was made up by Canada, France, Germany, Italy, Japan, UK, and the United States of America (“USA”).

At that time, the UK also qualified under a definition led by nominal Gross Domestic Product (“GDP”), a widely accepted metric of territorial financial standing, as recorded in Table 1.1, and measured in US Dollars (USD).

Table 1.1: Top ten countries by nominal GDP (Source: Silver, 2021)

Country	GDP (USD in trillions)	GDP Per capita (in thousands)
United States	\$20.89	\$63,413.5
China	\$14.72	£10,434.8
Japan	\$5.06	\$40,193.3
Germany	\$3.85	\$46,208.4
United Kingdom	\$2.76	\$41,124.5
India	\$2.66	\$1,927.7
France	\$2.63	\$39,030.4
Italy	\$1.89	\$31,714.2
Canada	\$1.64	\$43,258.2
South Korea	\$1.64	\$31,631.5

The UK has an established global trading history which lends it influence in its relationships, mainly for historical reasons, some of which hold uncomfortable resonances. Those relationships rely on a strong element of trust which became strained post Brexit and following a unilateral rewriting by the UK of an Agreement with the EU signed in 2020 concerning Northern Ireland. That incident impacted on other countries’ perception of their relationships with the UK prompting Nigel Sheinwald, a former UK ambassador to Washington and the EU, to note,

“The lesson of this week is that you can’t have a global Britain which is genuinely respected and influential and impactful around the world if people doubt your basic bone fides”

“There is no point in writing new Atlantic Charters which depend on mutual trust, mutual confidence and the rule of law, when you are operating as chancers.” (Stewart and Helm, 2021).

Reflecting that concern over the nature and value of relationships, Lord Peter Ricketts, a former Permanent Secretary and ambassador added,

“We have haemorrhaged and squandered trust” (Stewart and Helm, 2021).

The value of those perceptions matter, as the World Bank recognise through their metrics which are ranked in Table 1.2.

Table 1.2: Ease of doing business index (Source: World Bank, 2019)

Rank	Country
1	New Zealand
2	Singapore
3	Hong Kong
4	Denmark
5	Republic of Korea
6	United States of America
7	Georgia
8	United Kingdom
9	Norway
10	Sweden

In the same index, two other countries with whom the UK had previously forged a leading influence in the EU, Germany and France, rank 22 and 32 respectively.

SMEs and the UK

Successive UK governments claim to support and uphold progressive business attitudes and champion the contribution of SMEs to the national economy. The culture of UK SMEs is likely to be reflective of other regional foreign economies and governments share a need for sensitivity to local conditions when negotiating access to new markets beyond those more familiar territories.

Network Capital: How UK SMEs recognise its value in their international strategy?

Global trade requires reciprocity, and its regulation is based on terms set out by the World Trade Organisation (Ashourizadeh and Schott, 2016) under which inter country or bloc agreements are negotiated. In leaving one formal alliance, the UK is required to reframe its relationship with the EU, and form new networks to bolster, substitute and supplement those already in existence such as the ‘Commonwealth’. This research is undertaken in the aftermath of Brexit, the impact of which on the UK and its economy is still evolving.

Government policies and support for SMEs can only form once the ongoing negotiations with the EU and other countries take their final shape which may take several more years to achieve even if ostensibly concluded by 2021. Previously formed networks may reach the end of their lifecycle and become obsolete, requiring a fresh and strategic approach to forming their replacements in which the UK must be what Vahlne and Johanson (2013) describe as an active ‘insider’ to be successful. The ability to achieve and sustain that position will be influenced by the political objectives, culture at government level, negotiating power, and skill.

Throughout this period, SMEs must adapt to circumstances beyond their control. Their interests may be represented through membership of a recognised business organisation such as the Chamber of Commerce (“CoC”). How SMEs regard the effectiveness of these lobby vehicles is unknown.

SMEs and the UK government

The UK government of 2019 hailed increased direct government spending with SMEs rising from £4.4 billion (“bn”) in 2011 to 2012, to £5.6 bn in 2015 to 2016 and with a stated aim of departmental spending of £1 in every £3 with SMEs by 2022, the period over which this study is set (<https://www.gov.uk/government/news/small-firms-benefitted-from-over-12-billion-of-government-spending>). While acknowledging the importance of SMEs to the UK economy, the policy concentrates on domestic spend and is not aimed to assist SMEs in their international objectives. The UK government’s Department for Business, Energy & Industrial Strategy (“BEIS”) publication *Business Population Estimates for the*

Network Capital: How UK SMEs recognise its value in their international strategy?

UK and Regions 2021 (<https://www.gov.uk/government/statistics/business-population-estimates-2021/business-population-estimates-for-the-uk-and-regions-2021-statistical-release-html>) claims there are 5.5 million small businesses (0-49 employees), and 35,600 medium-size businesses (50-249 employees). This is a decrease from the previous year and reflects the impact of the 2020 pandemic.

Small businesses represent 99.9% of the total private business population of which 75% have no employees. Total employment in SMEs is reported at 16.333 million with an estimated turnover of 2.3 trillion British Pound Sterling (“GBP”). In 2019, European SMEs represent 99.8 per cent of non-financial enterprises generating 58 per cent of added value, and employing around 90 million people, 67% of the employment population (Gaganis *et al.*, 2019). Therefore, SMEs are organisations which McCann and Ortega-Arigilés (2016) argue should be prioritised.

However, founder SMEs are the most resource constrained globally (Davidsson *et al.*, 2017). Due to the importance of their contributions, the resilience of SMEs impacts locally, regionally, and nationally (Herbane, 2019). Having recognised this, policy makers and academics face the challenge of harnessing appropriate and effective support for SMEs which; meets their needs; is consistent across the regions: balanced to ensure that quantity is not at the expense of quality; addresses the demand for more formal networks (Lawton Smith *et al.*, 2012; Roy, 2012); and which are strategically relevant to regional and global economic environments (Salder *et al.*, 2020).

UK context: Networks and regional performance

The national statistics do not provide a picture of performance across the various regions of the UK. There is evidence that a country’s economic health relates to its ability to realise value at local and micro level to enhance its position in capital flow on the macro stage (Hallam *et al.*, 2018; Ding *et al.*, 2019). A graphic depicting business density rates is included below in Figure 1.1 and while not citing any correlation between business density rates, the shading perhaps reflects the poorer economic performing regions of the UK. The Office for National Statistics (“ONS”) in their publication *GDP. UK regions and*

Network Capital: How UK SMEs recognise its value in their international strategy?

countries: January to March 2019 (ONS, 2019) provide figures which generally support the notion that a link between the two data sets justify further interrogation.

A counter argument is that weaknesses may be attributed to poor infrastructure and connectivity, a matter of importance to businesses (Lawton Smith *et al.*, 2012; Herbane, 2019). The 2019 government is seeking to address this through projects such as the HS2 high-speed railway (which attracts its own controversies). The evident disparity of performance across the regions, as recognised by academics (Huggins and Thompson, 2015), sets policy makers the challenge to optimise national performance by eliminating those frailties. This points to the need for policy makers to understand how SMEs might exploit networks to best effect. To date, there is no evidence of that being the case, nor is it possible without first gauging the extent to which SMEs perceive the value of their networks.

Understanding the regional performance is important to a government wishing to attract FDI. In their study of 2019, Urzelai and Wang find that networks, and clusters of industries in the same sector are now pre-requisite of FDI, and for external organisations overcoming the challenges of entering a new, foreign market. A further interesting observation is that the geographical proximity of foreign companies to their networks in their domestic market is more important than replicating the same abroad. Spinelli *et al.* (2020) found that this was often the approach adopted by MNEs. Therefore, FDI is a potential source of creating a greater pool of SMEs.

Internationally, the Organisation for Economic Cooperation and Development (“OECD”) also recognise the part that SMEs play in economies and the importance of their participation in “eco-systems” networks, especially those which include academia and policy makers. The OECD (2018) pinpoint the growth in medium-sized businesses as central to a country’s performance. Further evidence of SME international activity is provided by figures produced by HM Revenue & Customs (“HMRC”) who find That 7% of exporters are businesses under 2 years old which supports findings by others (Narayanan, 2015; Hsieh *et al.*, 2018; Bagheri *et al.*, 2018). The total number of UK SMEs who are active in exporting is counted at 137,201 (HMRC, 2018).

Although recognising the potential for regional strength as found by Lawton Smith *et al.* (2012), Huggins and Thompson (2015) warn there has been scant regard by policymakers to replication on the global stage despite the evidence that internationalisation should be endowed with the appropriate priority (Narayanan, 2015).



Figure 1.1: Business density by region per 10,000 population

Source: Department for Business, Energy & Industrial Strategy publication Business Population Estimates for the UK and Regions 2021.

UK context: Governance constraints

Policy prioritising can be constitutionally frustrated. In the UK, the normal governmental term before being required to seek re-election is five years. In the absence of confidence in achieving a mandate for a second term, this presents strategic challenges with a political imperative for the delivery of successful policies early in a parliamentary term's duration and building public support in advance of the next election. This can invoke government funded initiatives (which can be vulnerable to abuse) through short-term financial expediency and the need for 'results' (McCann and Ortega-Argilés, 2016) rather than building a long-term national business strategy. Therefore, the policies risk failure as soon as the associated funding is withdrawn, often when an alternative political administration assumes power.

A UK example is the introduction in England of the National Apprenticeship Service in 2009 intended to boost apprentice numbers in SMEs by providing financial support. The scheme also provides an income stream for Further ("FE") and Higher Education ("HE") organisations. However, the unforeseen (although some argue it was predictable) consequence was that some MNEs used the scheme to replace their own training programmes in reaction to which, the government introduced an '*Apprenticeship Levy*' designed to impose a training tax on higher turnover businesses to support the original scheme. Unfortunately, this did not lead to companies restoring their original training policies and the unspent funds were returned to government leading to the failure of the well-intentioned initiative.

UK context: Policy challenges

As with all governments, it remains the stated ambition common to all the UK's main political parties to create a sustained competitive economy on a global basis (Teece *et al.*, 1997; Ruzzier *et al.*, 2017; Svare, and Gausdal, 2017; Gaganis *et al.*, 2019). As controllers of the operating environment (Oparaocha, 2015) governments need to be nurturing (Salder *et al.*, 2020). This requires long term strategies including reducing barriers to internationalisation and enable SMEs to flourish (Teece, 2014). This will be

achieved by facilitating access to relevant technical, cultural, and commercial competencies which address the complexities of internationalisation (Oparaocha, 2015). These are matters for which networks are well placed to address with local brokers acting as ‘connectors’ (Reineke *et al.*, 2018).

Ruzzier *et al.* (2017) identify policies which assist SMEs into international markets by providing; practical help in the process of exporting; an umbrella of support across both emerging and mature markets; and the development of networks (Salder *et al.*, 2020). Oparaocha (2015) finds that this assistance might include investment sourcing, credit funding, access to trustworthy agencies (Gaganis *et al.*, 2019), and ‘know how’ beyond the usual reach of SMEs. This requires more than the traditional trade fairs which yield inconsistent benefits (Luo and Zhong, 2016). Zeafarian *et al.* (2020) found that governmental identification of new markets directly results in orders, and which might also benefit FDI. However, as Urzelai and Puig (2019) note, understanding which levers to pull is a hard task for government. As innovators, SMEs can provide effective input to the process if sufficient resource is provided through academia, or elsewhere.

This approach will reflect the strategies adopted by indigenous companies in other countries. As Teece *et al.*, (1997) note; American, Japanese, and German organisations work within their inherent business cultures and encourage enterprise through a supporting financial and legal infrastructure (Narayanan, 2015; Hallam *et al.*, 2018; (Gaganis *et al.*, 2019). There is also evidence of the need for gender nuanced policies (Schott and Cheraghi, 2015; Neumeyer *et al.*, 2018), and to facilitate complementary clusters (McCann and Ortega-Argilés, 2016).

Despite the apparent appreciation of SME activity and willingness to support them, the calls by Huggins and Thompson, and Narayanan in 2015 for further understanding around the value of networks, including to internationalisation, suggests that the UK government is yet to appreciate NC. This may require a change of mindset; policy makers operating under constitutional constraints look to key economic performance indicators which are quantitative. This is incompatible with the value created through NC which is intangible and requires a different approach (Buyldina, 2018).

Those needs identified in 2015 could not have anticipated the Brexit process, the further impact of a pandemic, and their combined disruptive ‘shock’. The new uncertainty for all organisations and government, exponentially challenged SMEs as an existential threat. This is where Herbane (2019) sees the mutually supportive benefit of networks to SMEs in navigating the new world. If embraced, this demonstrates the potential for NC.

The context directly connects the macro and micro (Hallam *et al.*, 2018; Ding *et al.*, 2019), the Actors (Sidhu *et al.*, 2015), and the need for policies which support SMEs (Salder *et al.*, 2020), and the importance of networks (Herbane, 2019) in creating NC. It also underlines the importance of knowing how SMEs value their networks.

1.2 Research background

This section sets the theoretical background to the research and the ‘*what*’ and ‘*how*’ of NC and its place in organisational drivers.

Networks

Networks have existed from ancient times to the modern day. They take differing configurations (Vahlne and Johnston, 2013; Ruzzier *et al.*, 2017), result from happenstance or through deliberation, are open or secret, and can be created with benevolent or malevolent intent. Networks benefit individuals, organisations, individuals acting as organisations, governments, countries, and economic blocs. How networks are formed depends on performance expectations (Anjos and Reagans, 2020). However, they retain a common feature for which Ding *et al.* (2019) provide a definition,

“A network is a collection of objects in which some pairs of objects are connected by links.” (Ding *et al.* 2019,3)

Network Capital: How UK SMEs recognise its value in their international strategy?

Networks are a resource employed by organisations to achieve their operational and strategic objectives which are often focussed on growth through internationalisation. Successful and valuable networks are reliant on relationships between their members the cultural nature of which is an essential element of NC.

The network itself is an organisation either formally constituted or informally operated (Huggins and Johnston, 2010). They result from common interests whether they be; political; religious; sporting; leisure; friendship; causal; charitable; sinister; or in the case of this study, enterprise. Whatever the reason, to the participant members, networks represent value whether intangible or financially realised; they are assets, they are capital. As such, their worth is subject to change even to the extent of becoming a liability. The reasons for that change include those which are internal to the network or its member organisations, and the external influences of the environment in which they operate. To anticipate and accommodate those changes, be they slow or sudden, requires a strategic approach.

Entrepreneurial organisations exist to create, recognise, and realise value however measured; a process referred to in this research as 'Value Progression'. This requires a blend of innovation and understanding of opportunities which can be exploited in SMEs' chosen markets and the wider economic and social environment in which they reside. Maximising value involves selection from differing options and assessing which offers the greatest reward measured against the risk of committing investment.

One option, and the subject of this research, is to develop a pool of resources through creating networks. These networks can enhance the Value Progression and in doing so, create one of their own, NC. The perceived value is at the heart of this study.

Value creation in a dynamic environment

The use of networks, the shift from the industrial to the technological/informational age (Castells, 2000), and the concept of NC reflects the evolution in societal and business culture from that of a century ago. The connecting strand is the search to create value

through improved productivity and growth. The neoclassical scientific approaches set out by Taylor in *Principles of scientific management* (1911) and others in seeking production efficiencies were succeeded by the management behavioural theories of the latter part of the century with a tendency to focus on resources and internal defence against threats.

The current theories require a mindset that is outward looking and invites collaboration. This is consistent with the notion of continual realignment (Teece, 2012) working with, rather against, market forces. This reflects the wider influences of social cultural change where more information is freely shared on mediums such as 'YouTube' and encourages open collaboration and innovation (Huggins and Thompson, 2015) on a global scale. This capability is enabled by sophisticated Information and Communication Technology ("ICT") (Teece, 2007; Rangus and Slavec, 2017; Wild, 2020). As open structures, networks are ideally suited to this application (Castells, 2000). With this reach, and through shared values, networks also have societal impact on both secular and traditional cultures by encouraging the enforcement and legal protection of rights in areas including discrimination by gender, ethnicity, workers' rights including pay, benefits, and safety at work (Reineke *et al.*, 2018). This provides evidence of value being created through power.

Intangible as they are, and relying on relationships as they do, networks can create value. However, that may or may not be recognised in an equivalent way to those attributed to tangible resources. This perception of networks' worth represents a challenge as it requires an objective assessment of a subjective view.

The potential for networks as a resource for SMEs to employ within the macro environment is discussed in the earlier section setting out the context of this study. Their potential within micro-organisational drivers is now considered.

SME organisational drivers

Organisations, of whatever size and type, from micro to macro, from local to global, require strategies to survive and thrive in a long term and sustained state in the fast moving competitive ‘Red Ocean’ and global environment in which they operate (Kim and Mauborgne, 2005). These strategies are designed to extend the useful lifecycle of the organisation which requires vision, environment assessing, and forecasting blended with resilience preparation for unpredictable and extreme events causing severe economic shocks. For most organisations, the ability to extend that lifecycle lies in growth (Angwin *et al.*, 2011).

SME internationalisation and challenges

If growth cannot no longer be achieved within the confines of an organisation’s domestic market, internationalisation is required (Johanson and Valhne, 1977). Castells (2000) notes internationalisation has moved away from regionalisation to globalisation as a result, he argues, of the economic crash in the USA of the 1973-75. Networks have become essential to both strategy and finding new markets (Castells, 2000). As such, networks create value when they are at the heart of, and aligned with, international strategy, a question at the heart of this study.

The speed with which internationalisation occurs has accelerated and is now often achieved soon after creation (Monferrer *et al.*, 2014; Sanyal *et al.* 2020). It is essential to growth (Baimai, and Mukherji, 2015; Costa *et al.*, 2016; Ashourizadeh and Schott, 2016; Hughes *et al.*, 2017). Internationalisation may be necessitated where the domestic market is too small (Wild, 2020), and where increased production and growth capacity can only be exploited by new markets to create complementary demand (Castells, 2000). By its nature, the UK presents a geographically finite market further limited by the loss of the borderless territories within mainland Europe.

Organisations seeking to internationalise face barriers whether technological or otherwise (Teece *et al.*, 1997). Overcoming these requires either investment in acquiring

Network Capital: How UK SMEs recognise its value in their international strategy?

the required resource or its development to overcome a lack of knowledge (Costa *et al.*, 2016; Mejri *et al.*, 2018). These are perceived by SMEs to include governments, process, culture (Narayanan, 2015), Intellectual Property (“IP”) or trade protection (Teece *et al.*, 1997; Oparaocha, 2015), and internal barriers such as finance or organising logistics. A common approach is the use of third parties such as ‘border agents’ (Cabanelas *et al.*, 2013; Ruzzier *et al.*, 2017; Stoian *et al.*, 2018) who also lend legitimacy to new operators (Ripollés and Blesa, 2019) especially those from emerging economies (Mejri *et al.*, 2018). Networks offer a potential resource to acquire solutions to these challenges.

SME sustaining growth and resources

While strategic internationalisation may be core to growth, it alone does not ensure survival. Different organisations, entrepreneurs, business managers, academics, and governments share a common interest in creating strategies which can deliver effective results through meeting prevailing market conditions and ensure a state of readiness for those of the future. This ultimate paradigm is to achieve and maintain “*Sustained Competitive Advantage*” (“SCA”), an enduring concept introduced by Jay Barney in 1991 and which, he posited, relies on the ability to create “*Valuable, Rare, Inimitable, and Non-Substitutional resources*” (“VRIN”). While SCA remains a relevant concept, the VRIN has changed in nature with a shift from tangible resources to those which are intangible and include, “*Dynamic Capabilities*” (“DCs”) introduced by John Teece, Gary Pisano, and Amy Shuen in 1997. DCs are intensified internal management skills which are leveraged to create value through exploiting external and inter-organisational opportunities. Therefore, they are naturally suited to, and an inherent part of, network creation.

SMEs and networks

Internationalisation presents a more challenging level of difficulty (Johanson and Vahlne, 1977) to SMEs for whom acquiring sufficient resources to execute their strategies is a perpetual challenge (Huggins and Thompson, 2015; Li, *et al.*, 2018; Bagheri *et al.*, 2018; Hånell *et al.*, 2018).

One option is to buy the ‘in house’ resources of MNEs with the inevitable tensions which result from being a smaller interest subordinated to their unaligned objectives. Therefore, the ability to develop, sustain, and leverage value off effective networks offers an attractive alternative, one which Sanyal *et al.* (2020) consider to be critical to SMEs. This resonates with the ‘Network Model’ of Johanson and Mattson (1988) which centred around network relationships to achieve internationalisation. Studies suggests that NC is employed either consciously or sub-consciously by organisations in their strategies especially when accessing new and foreign markets (Cabanelas *et al.*, 2013; Almodóvar and Rugman, 2015). However, the value of NC is diminished if it is not understood by the organisations to whom it offers the most potential. It is that level of understanding which this study explores.

Value measurement

The term ‘Capital’ invites the creation of an appropriate method to measure its impact or assign a value. In this respect, intangible assets present methodological challenges (Teece *et al.*, 1997; Barney *et al.*, 2011; Ha *et al.*, 2015; Jordão and Novas, 2017). Teece *et al.* (1997: Teece, 2007) argue a metric is required in a common and agreed form. In considering the third sector, Eng *et al.* (2018) found Social Capital (“SC”) built value for causes especially when aligned with Corporate Social Responsibility (“CSR”) or societal contribution (Jordão and Novas, 2017) illustrating the diversity of approach. Intangible assets will have a value to the market (as distinct to Market Value as defined by the International Valuation Standards Committee) even it is not assigned a Book Value recognisable under “*Generally Accepted Accounting Principles*” (Jordão and Novas, 2017). That difficulty is summed up by Cohen and Levinthal (1990) in discussing Absorptive Capability (“AC”); as it is an intangible asset which requires a deliberate effort to develop, whose benefits are indirect, and subject to unquantifiable barriers which may be internal and external (Cuervo-Cazurra and Rui, 2017).

Olajide *et al.* (2016) explore the definitions of cost, price, worth, and value in the context of the real estate market. While the cost relates to the production of a product or service

and price to their acquisition, these are both matters of objective fact. Therefore, they are only relevant to the acquisition of resources for financial consideration.

Value and worth are ascertained through perspective. Value is an opinion of the intrinsic return derived from an investment (not necessarily financial) and worth is the perspective driven assessment of that value. Therefore, to value effectively requires an intimate and thorough understanding of all the nuances that might affect worth.

While acknowledging the desirability of a metric which may, like goodwill, be assigned a monetary value in future, it is beyond the scope of this research. However, as facets such as CSR have gained influence in perception of value, the potential for enhancing or detrimental impact of other associated influences should not be ignored either in strategy, or choice of network and its membership. For the purposes of this study, value is derived from the view of perspective.

This approach includes the ‘extrinsic’ value derived from successful leverage of networks (Alinaghian and Razmdoost, 2018) which offers “*Firm Specific Advantages*” (“FSA”) identified by Almodóvar and Alan Rugman (2015) and potentially “*Country Specific Advantages*” (“CSA”) underlining the mutual interests of SMEs with that of the governments under which they are domiciled. This potential is discussed in Chapter 6.

1.3 Research question

Previous studies of NC have highlighted its attributes including membership, benefits, extrinsic value creation, strengths, vulnerabilities, and as a resource. However, there are no studies on the level of understanding by SMEs of NC as defined by Huggins and Thompson (2015) and its deliberative use. The existing papers on networks and SMEs in the UK are listed in Table 1.3.

Table 1.3: Existing literature covering UK, networks, and SMEs

Authors	Content		
Huggins and Johnston (2010)	Focus	Firm size influence on SC and KC	
	Geography	Three regions, northern England	
	Method	Quantitative	
	Sector	'Knowledge-intensive'	
Lawton Smith <i>et al.</i> (2012)	Focus	Formal networks	
	Geography	Oxford and Cambridge	
	Method	Quantitative	
	Sector	Non-specific	
Chakkol <i>et al</i> (2018)	Focus	Social capital	
	Geography	Non-specific	
	Method	Case study	
	Sector	Chain supply	
Herbane (2019)	Focus	Resilience	
	Geography	UK	
	Method	Quantitative	
	Sector	Non-specific	
Bisignano and El-Anis (2019)	Focus	Embeddedness	
	Geography	Single city	
	Method	Qualitative	
	Sector	Asylum seekers	
McAdam <i>et al.</i> (2019)	Focus	Women entrepreneurs	
	Geography	Northern Ireland	
	Method	Qualitative	
	Sector	Non-specific	
Harjoto and Wang (2020)	Focus	Board level	
	Geography	General	
	Method	Quantitative	
	Sector	FTSE listings	
Eng <i>et al.</i> (2020)	Focus	Social value	
	Geography	Non-specific	
	Method	Case study	
	Sector	Third sector	

The studies focus on,

- Social Capital ("SC") (Huggins and Johnston, 2010; Chakkol *et al.* ,2018; Harjoto and Wang, 2020; Eng *et al.* (2020),
- networks and regional performance Lawton Smith *et al.* (2012),
- SME resilience and NC (Herbane, 2019),
- immigrant entrepreneurial integration (Bisignano and El-Anis, 2019),

- societal culture (McAdam *et al.*, 2019).

While these are all studies of direct relevance, there are none which inquire of,

- SMEs across the UK and their understanding and use of,
 - perceived network value,
 - strategy,
 - networks and international strategy.

1.4 Research plan

The research concentrates around the four core strands of the question,

- networks,
- SMEs,
- strategy,
- internationalisation.

The study also encompasses other aspects which impact on networks either positively or negatively including,

- academia,
- CSR,
- culture,
- government.

Diagrammatic figures are included throughout which reflect the researcher's synthesis of concepts.

1.5 Research objectives

The objectives of the research are,

- to advance the academic body of work on NC,

Network Capital: How UK SMEs recognise its value in their international strategy?

- through empirical evidence of SME perceptions of network use and value,
- to identify a practical application for SMEs,
 - by promoting awareness of NC, and alternative approaches to business management,
- to help inform government policy,
 - by identifying opportunities to align government and SME objectives.

In addition to SMEs, the research is of value to governments and academic institutions who are subject to their own and similar challenges in achieving their objectives through their networks. As governments strive to improve productivity, academic institutions provide a vital role in research and helping them to shape policies, and to enterprises through introducing and improving resource and business management frameworks. Therefore, given the importance of the role played by SMEs, their interests and mutual prosperity are inextricably linked (Sidhu et al., 2015). Thus, SMEs operate in an environment where their objectives are subject to an array of influences which may affect their international strategy.

1.6 Research scope

The research is designed to engage with SMEs,

- of all sizes up to 250 employees as classified by the UK government,
- of all ownership types excluding business units owned by MNE parent companies,
- located in all nations and regions of the UK,
- in economic sectors as classified by the UK government.

1.7 Research limitations

There are two areas which the study does not seek to address although they have relevance to NC.

Network Capital: How UK SMEs recognise its value in their international strategy?

The first area concerns Brexit which is relatively recent to this study. The tables and figures deliberately reflect the study period to ensure authenticity and context for its background. Following the Brexit decision, the narrowly decided vote causes resentment in a large section of the UK society and has domestic political ramifications. This may be particularly acute in the SME sector.

While it is impossible to avoid discussion of Brexit during the fieldwork stage, it does not feature within the study as it is considered that; there may be a political bias involved on behalf of the participant in the research; and the study would not contribute to the undoubtedly multitude to studies that will be undertaken on the subject.

The second relates to measurement. While acknowledging the importance of metrics to robust hard data analysis, this is not available to the researcher and who does not have the necessary skills to develop a credible model. It is a subject for further study.

1.8 Research definitions

Definitions adopted for the study are included in the relevant section.

1.9 Research contribution

The study adds to the body of academic knowledge on NC and raises some questions for further research.

- Empirical; this study differentiates from previous studies on NC as it addresses the question of value from the perspective of SMEs. It also draws on participants from different regions of the UK and business sectors. The study provides an insight into the use or otherwise of NC in business practices. The study achieves primary data.
- Theoretical; it proposes a model to transform FSA to CSA though the alignment consistent with the links identified by Sidhu *et al.* (2015) of the Actors.

- Practice; the study further promotes the concept of NC as a tool which is integral to business management skills and which may be adopted as a mainstream theory in business studies. This will inculcate students and future entrepreneurs with a management resource for creating business strategy in both domestic and international markets.
- Policy; through identifying the challenges of the study, it contributes to the role of academia who inform policy makers seeking to create effective support for SMEs as they internationalise.

1.10 Research methodology

The purpose of the study is to present findings and conclusions which speaks the language of business while satisfying the robust challenges required of academic papers. Following a model developed from '*The Research Onion*' (Saunders *et al.* (2012) the researcher adopts a philosophy of '*Pragmatism*' (Creswell and Creswell, 2018).

Consistent with this philosophy, a methodology of 'abduction' (Bryman, 2012) is selected for execution by a mix-method approach of blending quantitative and qualitative data (Bryman, 2006; 2012). This offers the researcher flexibility to alter the design if required. The quantitative stage is undertaken first through questionnaire surveys. The qualitative data is acquired through interviews, and supplementary case studies.

1.11 Research structure

The research fieldwork is formed by four stages,

- Literature Review: this includes some data which informs the study and provides further context and background.
- Questionnaire: this provides some facts (hard data) with perceptions (soft data) surrounding the key areas of study.

- Interviews: building on the questionnaire survey, this process enables understanding and concepts to be explored.
- Case studies: two case studies are conducted in similar industries with companies who adopt different approaches to their networks.

The data is harvested until the sample targets are met or saturation is achieved. The quantitative data is analysed through Microsoft excel software. The qualitative data is analysed through Nvivo software.

1.12 Research challenges

The researcher anticipates that persuading SMEs to participate in the study will be the greatest challenge. Therefore, the survey, interview, and case study stages are designed to mitigate the impact on their time and effort. It is expected that government and business organisations would be willing to support the researcher in gaining access to SMEs however, they prove either unable or unwilling to assist.

The researcher also attempts to harvest data from every nation and region of the UK. This proves not to be possible.

1.13 Introduction summary

This chapter sets out the definition of NC before discussing the context in which the study is set. It discusses SMEs, the economy in which they reside, their value to, and relationship with, policy makers. The status of the UK is explored at the time when this study is focussed, representing a period which is post the Brexit referendum, and before the impact of the Covid 19 pandemic can be fully understood.

The contribution of SMEs to the UK economy is discussed and evidences an inconsistent performance across the regions. Successive governments implement policies to assist

SMEs and operate within their own constitutional constraints which are, ultimately, self-imposed by politicians. There is evidence that they fail in this endeavour.

The chapter progresses to the background of NC and its potential to enhance the organisational drivers for growth including internationalisation. The value of networks is discussed around the advantage they can offer to organisations, and to the UK economy.

The research concerns itself with that value which is understood by academics however, there is no evidence of the extent to which SMEs use their networks, understand their value, or their potential contribution to strategy and internationalisation. It is these aspects which this study addresses.

The research plan, objectives, scope, and contribution are set out with the anticipated challenges which will require an inquiry methodology built on pragmatism, and flexibility.

1.14 Thesis structure

This study is organised in five further chapters,

- Chapter 2 – Literature review. This chapter explores; the nature of networks; the theoretical base on which NC is built; and distils the existing literature to identify the research gap.
- Chapter 3 – Research methodology. The philosophy, methodology, and design of fieldwork is set out and worked through a systematic procedure. The chapter concludes with data collection and analysis methods.
- Chapter 4 – Research fieldwork and results. A commentary following each stage of the fieldwork. This is concluded by an analysis of quantitative data, qualitative data, case study, findings, and other insights.
- Chapter 5 – Discussion. The findings are explored by the principal themes of networks, strategy, and internationalisation.

- Chapter 6 – conclusions. The study reaches its final stage with a summary and proposes further areas for future study. The chapter concludes by exploring the networks and relationships of the Actors in conjunction with a proposed concept.

Chapter 2 follows and is presented in three sections which explore,

- Networks; their facets and value,
 - networks in practice, their types, members, and relationships,
 - derived benefits, both direct and indirect,
 - risk, governance, and culture,
 - contribution to strategy and internationalisation.
- NC; its place in existing theoretical frameworks,
 - where it resides in existing theories,
 - organisational drivers for growth,
 - network value creation.
- The research gap; how it is identified,
 - literature review of themes, and calls for further research,
 - UK and SMEs,

The gap and why it matters.

Chapter 2 Literature review

2.0 Introduction

This Chapter considers the existing literature available to the study and relevant to the question. The review is formed by three themes,

- The first section considers the nature of networks, their formation, characteristics, value, application, and influences.
- The second section explores the theoretical background and roots of NC.
- The final section provides a critique of the literature and identifies the research gap.

Throughout the review, figures are included which (unless otherwise referenced) reflect the process of the researcher's philosophical development and synthesis of the literature. The review reveals a virtuous circle of growth formed by networks, internationalisation, and strategy. This is identified as a 'mesh'; the area where these elements combine and operate as a coherent and intangible entity. Where these key words are illustrated either within the figures individually or in the mesh they are denoted by a heavy black border for ease of reading and reference.

2.01 Contents

Section One

- Networks – moving to centre stage
- Networks in practice
- Network value
- Network risks
- Network governance
- Networks and Strategy
- Networks and internationalisation

- SME culture
- External influences

Section Two

- Networks – theoretical review
- The evolution from Schumpeter to Huggins and Johnston
- Organisational drivers
- Value creation

Section Three

- The research gap
- Literature table and emerging Themes
- Areas of further research
- Literature Review summary

2.1 Networks – moving to centre stage

In his prescient book, *The rise of the Network Society*, Manuel Castells (2000) marks the shift from industrial production to the age of technology which morphs into the ‘informational’ age and argues,

‘the network enterprise makes material the culture of the informational, global economy: it transforms signals into commodities by processing knowledge’ (Castells, 2000, 188).

By designating networks as ‘commodities’, Castells assigns a trading value some years before Huggins and Johnston (2010) argue their case for treating networks as assets - capital.

While not explicitly referring to the DC of Teece *et al.* (1997) which are discussed in Part 2, in describing the nature of networks, Castells resonates their characteristics defining networks as,

“... self-organising structures that create complexity out of simplicity and superior order out of chaos, through several orders of interactivity between the basic elements at the origin of the process” (Castells, 2000, 74).

Castells also obliquely draws on Barney’s (1991) concept of SCA quoting Mulgan’s (1991) argument for the purpose of informational networks,

“networks are created not just to communicate, but to gain position, to outcommunicate (sic)” (Mulgan, 1991, 21).

Through the work of Castells (2000), Huggins and Johnston (2010), and others, networks move from being incidental to societal life, business, and the economy to their centre as a core enabling resource with corresponding value.

2.1.2 Networks in practice

This section explores the practical aspects of networks; types; membership; institutions; and relationships.

Networks in practice – Formal networks

At a basic network level, individuals or businesses may be members of subscription-based trade or professional bodies. This may be through necessity for regulatory governance purposes, especially in the services sector, or for reputational and promotion purposes (Teece *et al.*, 1997; Lawton Smith *et al.*, 2012) as is common with construction trades. Therefore, while members are linked and part of a larger organisation by whose rules they abide, there may be no necessity or reciprocal incentive for them to participate in its business. It is optional for members to exploit their SC and create links of value with others.

More complex are ‘*Alliance Networks*’ (Huggins and Johnston, 2010,459) such as agricultural cooperatives which form to create value through economies of scale enabling greater buying or selling power, and to develop brand presence for its

stakeholders (Somhlahlo *et al.*, 2016; Dimitratos *et al.*, 2016). Equally, they may provide a coherent infrastructure by coordinating and realising value from differing specialisations (Teece, 2007) with an increasing reliance on external resources (Teece *et al.*, 1997). These arrangements are usually formal and formed as an independent legal entity with the accompanying obligations for governance and compliance, especially if the alliance involves joint-ventures or franchising (Vahlne and Johanson, 2013). Therefore, alliances comprise legal parties, shareholders, partners, stakeholders, and associates.

Alliances or individual businesses may form part of a recognisable ‘chain’ which are often created to secure an inter-dependent sequential process to deliver a product or service to market through contractual arrangements which may, for instance, feature inter-organisational obligations such as ‘Service Level Agreements’. Hence chains exist to improve efficiency and effectiveness and potentially, a valuable advantage (Porter, 1985; Barney, 1991). They are heavily reliant on ‘Business Relationships’ (“BR”) (Almodóvar and Rugman, 2015,686) and Knowledge Capital (“KC”) (Kilpi *et al.*, 2018). While BR presents a degree of reliance between parties, their transactional nature distinguishes them from the extrinsic value gained through networks.

These various arrangements are single purposed (although they may comprise several elements) which are formed to achieve a distinct operational rather than a strategic aim. Where legal or contractual covenants exist, confrontation, penalties, and ultimately recourse to the legal system feature when one or more parties are perceived to be in breach of those obligations. The value of memberships, alliances, and chains is evidenced both in organisational and broader contexts including influencing policy (Lawton Smith *et al.*, 2012) and sometimes exist consequential to a successful informal network (OECD, 2018). However, if a party wishes to terminate an agreement because, for example, they find their resources being absorbed rather than supplemented, a satisfactory extraction can be difficult to achieve (Ashourizadeh and Schott, 2016).

Therefore, formal arrangements may be characterised as resources required to achieve growth consistent with Barney's RBV approach (1991). As such, their structures are rigid and easily understood by their members.

Networks in practice – Informal networks

While networks may be formalised through mechanisms, they are frequently informal (Huggins and Johnston, 2010), self-organised, and increasingly emerge through 'Social Network Systems' ("SNS") (Sulistiyani and Harwiki, 2016), SC, and happenstance (Lawton Smith *et al.*, 2012; Siddiqui *et al.*, 2016; Jordão and Novas, 2017). These are organically formed with participants contributing of their own volition, as required, and when appropriate for which Huggins and Thompson (2015,105) use the attractive term "*nexus of activities*". However, there may be elements of networks which require some formality perhaps around a critical component such as IP or to acquire a recognisable entity which enables engagement with bodies such as regional or national policy makers. The defining culture of networks is their ability to operate transnationally as they move from the micro (individuals or organisations) to the macro (governments) (Lawton Smith *et al.*, 2012; Ashourizadeh and Schott, 2016).

Formal arrangements often impose exclusivity on the participating parties to prevent them engaging in prescribed and potentially competitive actions outside that network. Informal networks are less constrained. On the contrary, multi-network membership is anticipated, expected, and even encouraged as part of a network's SC to seize opportunities and progress the effectiveness of its capabilities or extrinsic value (Adler and Kwon, 2002; Huggins and Johnston, 2010; Huggins and Thompson, 2015; Roy, 2012; Vahlne and Johanson, 2013; Lee *et al.*, 2016; Nysröm *et al.*, 2017). That approach also runs the risk identified by Huggins and Johnston (2010) of a network becoming destabilised by members looking elsewhere for resources rather than utilising those already available.

While formal obligations may not exist, membership also requires participation, trust, and unarticulated rules. The DCs employed to form a network, the definition of NC (Huggins and Thompson, 2015), its intangible nature, and the value it can unlock, requires the relational nature as the essence of NC. That value may be constrained if this is not understood by its members, an aspect directly addressed by this study.

Networks in practice – Membership

Whether formal or informal, commentators have suggested various stakeholders who might be considered as appropriate network participants as set out in Table 2.1 below.

Table 2.1: Potential network members

Author	Network members
Teece, 2007	Complementors, Suppliers, Regulatory authorities, Standard-setting bodies, The Judiciary, Educational and research institutions.
Roy, 2012	Family, Community, Finance, Business Alliances.
Huggins and Thompson, 2015	Customers, Suppliers, Members of professional networks, Knowledge networks; Rivals; Public and private sector knowledge providers; Universities.
Almodóvar and Rugman, 2015	Customers, Suppliers, Competitors, Government, Employee, Creditors, Environmentalists, Universities.
Schott and Cheraghi, 2015	Customers, Distributors, Suppliers, Competitors, Government.
Oparaocha, 2015	Employees, Customers, Suppliers, Competitors, Government agencies, Distributors, Bankers, Families, Friends.
Siddiqui <i>et al.</i> , 2016	Rivals.
Zeafarian <i>et al.</i> , 2016	Competitors, Suppliers, Customers, Distributors, Government bodies.
Jordão and Novas, 2017	Investors, Customers, Suppliers, Governments, Other stakeholders (unspecified).
Gaganis <i>et al.</i> , 2019	Banks.
Sanyal <i>et al.</i> , 2020	Foreign intermediaries, Suppliers, Customers, Government, Other organisations (unspecified).

Teece (2007) argues that members must be drawn from both core members, possibly those identified by Schott and Cheraghi (2015), and periphery participants who reflect the range and diversity of value they can offer. Interestingly, Almodóvar and Rugman (2015) include customers within their suggested list while simultaneously cautioning against collaboration with them due to the BR element. In contrast, Mitchell *et al.* (2016) conclude that customers can add SC in a networking context. Their discussion includes the strategic nature of networks however does they do not comment on any such value brought by members as set out in the definition of NC. The list includes 'other stakeholders' (Jordão and Novas, 2017) which can include those who are members of a network through entitlement; effectively an externally imposed appointment (Carver, 2006) such as a government body which often the case in China (Shi *et al.*, 2021).

Network membership – government

The inclusion of government as part of a network appears frequently. Research by Oparaocha (2015) focusses on the SME sector relationship with government institutions in Sweden and Finland. It identifies that practical support is an acute requirement for SMEs seeking to internationalise. However, it was found that while that support exists, there is poor awareness of it by the very organisations to which it is available. Therefore, the relationship between institution and the SME sector is failing. This is an aspect which the study addresses from the UK perspective.

Network membership – academia

More institutional links are highlighted in other research which find that successful networks include those with high academic innovative involvement either working directly or through regional or trade initiatives. These prove capable of delivering effective benefits through public and private collaborations such as the reduced cost of research (Lawton Smith *et al.*, 2012). Academic links assist SMEs who are otherwise forced to make small and less strategic innovations due to restricted resources often linked to finances (Iturrioz *et al.*, 2015; Gaganis *et al.*, 2019; Limaj and Bernoider, 2019). However,

this effectively subsidised approach is unsustainable as a sole source for SMEs (Acs *et al.*, 2013) who should view this as a resource off which to leverage, rather than rely.

These activities combine to create local knowledge groups that can influence thinking, policies, and actions of member organisations (Huggins and Thompson, 2015). Consequently, they may actively contribute to industry or sector regulation, and international trade deals by capturing and then building value. These “*Knowledge Incubators*” (Acs *et al.*, 2013, 758), make a significant contribution to the economy (Lee *et al.*, 2016) by enabling others to commercialise KC in partnership with academic institutions who either choose not to, or do not have the internal AC, (Barney *et al.*, 2011; Acs *et al.*, 2013). Therefore, networks have a pivotal role in successful business incubation (Eveleens *et al.*, 2017).

Both FE and HE organisations have adapted their approaches to embrace the application of knowledge to practical business and entrepreneurship which inevitably leads to a focus on, and engagement with, SMEs. This extends from enabling new enterprises through ‘Seedbed’ and innovation centres, to forming clusters of technical specialisations with access to local markets and MNEs which overcome the constraint of size (Acs *et al.*, 2013; Cabanelas *et al.*, 2013; Teece, 2014; Jordão and Novas, 2017; Svare, and Gausdal, 2017). While small firms are more reliant on informal SC, research by Huggins and Johnston (2010) shows that medium sized organisations have a greater propensity to utilise formal networks and links with academia.

Network membership – relationship types

Table 2.2 explores the potential status of the links between network members through the researcher’s perception based ‘sense-check’ drawn from the literature. The exercise supports Oparaocha’s suggestion (2015) that these links are incongruent and disjointed. This is not to pre-empt or influence a particular outcome of the fieldwork however, it is considered relevant in providing context.

Network Capital: How UK SMEs recognise its value in their international strategy?

Three networks are identified as being in play; social (informal); business (informal or formal); and institutional (formal), suggesting links between different spheres of influence which when combined can leverage effectiveness.

Table 2.2: Member relational links (researcher's synthesis)

Members	Social	Business	Institutional
Banks		Yes	
Complementors		Yes	
Community	Yes		
Competitors		Yes	
Customers	Maybe (SNS)	Yes	
Creditors		Yes	
Distributors	Maybe	Yes	
Educational and research establishments		Yes	Maybe
Environmentalists		Yes	
Family	Yes	Yes	
Finance		Yes	
Friends	Yes	Maybe	
Government			Yes
Investors		Yes	Maybe
Regulatory and standard setting Authorities			Yes
Suppliers		Yes	
Trade or professional bodies			Yes
The Judiciary			Yes
Other	Unknown	Unknown	Unknown

The membership and the relationships within and without the network will depend on its type. The perceived value of individual members is not type dependent however, proximity in participation can be a factor as evidenced by the seedbed enterprises. Governmental relationships, always formal, are subject to changes outlined in the context section of Chapter 1 which can limit their effective contribution.

2.1.3 Network value

The literature identifies direct and indirect value derived from networks which are explored in this section.

Network direct value

Direct value is considered to consist of a benefit directly attributable to participation within a network.

Network direct value – participation

If networks differ from the other arrangements, the decision to participate must be deliberate, reasoned, and with the intention to acquire an advantage and achieve entrepreneurial strategic objectives beyond its boundaries. The attractiveness of networks is the relative ease with which they offer the combination of legitimacy, AC, and KC (Jordão and Novas 2017; Cuervo-Cazurra and Rui, 2017). Objectives develop and change during the lifecycle of an organisation however, the common thread is; to benefit from complementary resources (Iturrioz *et al.*, 2015; Oparaocha, 2015; Alinaghian and Razmdoost, 2018); engagement with emerging technologies (Castells, 2000; Teece, 2007); the ability to make strategic choices (Iturrioz *et al.*, 2015; Öberg *et al.*, 2016); to overcome what Almodóvar and Rugman (2015,686) call '*Liability of Foreignness*' ("LoF") (Pinho and Prange, 2015; Oparaocha, 2015; Costa *et al.*, 2016); to innovate (Junfeng and Wei-ping, 2017); and create SCA (Huggins and Thompson, 2015; Iturrioz *et al.*, 2015). While these benefits are available, Harrison *et al.* (2010) find that diversity in members' participation and expectations impact on their own and other members' strategies; a matter for network governance.

Figure 2.1 illustrates the motives for SMEs identified from the literature referenced in this section and the requirement that some form of governance is in place to reconcile the needs of the individual member and manage the form of the network. Therefore, the value of the network discussed in the background section of Chapter 1 is enhanced or diminished by the quality of a network's governance. Within informal networks, this is the mutual responsibility of the individual participants.

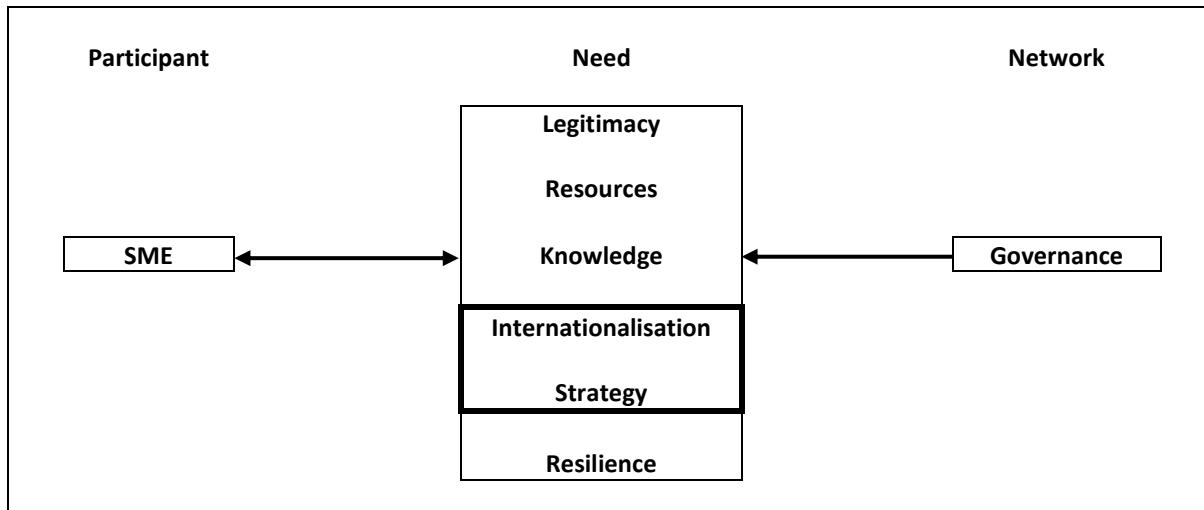


Figure 2.1: Participation drivers and governance (researchers' synthesis)

Network direct value – Legitimacy and resource

As SC is a vital DC in a network's creation, especially in emerging or informal economies (Agyapong *et al.*, 2017; Nguyen, 2020) where more formal networks may not be available, a reason to participate may simply be an entrepreneurial desire for new organisations to initiate the process of external linking (Teece, 2014) by integrating into the local business and wider community to generate valuable opportunities or access resources (Teece *et al.*, 1997; Adler and Kwon, 2002; Huggins and Johnston, 2010; Mitchell *et al.*, 2016; Nysrtöm *et al.*, 2017; Hallam *et al.*, 2018; Hånell *et al.*, 2018). Networks provide legitimacy reflecting the need and difficulty faced by young businesses (or academics) competing in their own sector to be perceived as worthwhile or relevant to others (Lawton Smith *et al.*, 2012; Hallam *et al.*, 2018). Alternatively, the formation of a network may reflect the inability to create a formal alliance, while retaining that long term ambition (Huggins and Thompson, 2015).

Vahlne and Johanson (2017) regard activity within a network as a necessity of organisational survival and growth (Lawton Smith *et al.*, 2012) which is not contradicted by their later observation that at the start of an organisation, there must also be a degree of internal resource (2013). This implies a degree of investment assessed against risk and return. The positive impact is supported by Svare and Gausdal (2016; 2017) who

conclude that organisations with high DC derive the greatest benefit from networks, and Roy (2012) who finds that NC enables SMEs' growth.

Almodóvar and Rugman (2015) argue that failure to build relations will starve access to resources while Salder *et al.* (2020) point to the need for relationships and their renewal to be embedded in a SME's culture at their inception, and throughout its life cycle (Monferrer *et al.*, 2014; Oparaocha, 2015), reflecting the definition of NC (Huggins and Thompson, 2015) in describing the series of investment in relationships with the requisite deliberation.

Network direct value – Knowledge and innovation

KC is core to SMEs to enable innovation and SCA (Jordão and Novas, 2017; Uzelac *et al.*, 2018). Therefore, participants can benefit from “*Knowledge Spillover*” (“KS”) a concept introduced by Acs *et al.* (2013,757). KS is a free source of others' valuable information which can benefit or undermine a network if not managed through effective governance (Teece, 2007; Huggins and Johnston, 2010; Cabanelas *et al.*, 2013; Huggins and Thompson, 2015; Ha *et al.*, 2015; Ripollés and Blesa, 2019). KS is a problem where sectorial skill clusters form and attract employees from the same sources (Byrne *et al.*, 2021).

Scuotto *et al.* (2017) contend that there is more innovation through ‘borrowing’ than invention. Huggins and Thompson, (2015,111) distinguish between two forms of knowledge; that which is “*sticky*” and hard to remove from a network (Schweisfurth and Raasch, 2018), and “*leaky*” which more porous and from which rivals can also benefit. In this respect, there is evidence that small scale networks are more robust than those which are larger (Gu *et al.*, 2019), a risk which is nuanced by the dynamic benefit of size, and trust generated through SC.

That risk of KS may deter some members from collaboration until they attain the necessary trust (Iturrioz *et al.*, 2015). However, it provides others with opportunities; the desire of a foreign member of staff wishing to repatriate may offer an entry into their

country of origin without the reliance of other agents (Barney *et al.*, 2011). This instigates the formation of a new network in an emerging market rather than constrict the enabling resource through a defensive exclusion contract. Thus, the extrinsic benefits grow, as does the potential of exponential growth into new networks, and enhanced NC.

Network direct value – SMEs and MNE networks

Whether within or without a network, SMEs need to be sensitive to the opportunities and threats presented through their relationship with MNEs who may offer an alternative solution to growth. In the past, MNEs might regard the presence of SME networks as a potential competitive threat or as a political lobbyist. Reflecting the evolution in business culture, there is evidence that the relationship between SMEs and MNEs has changed from the monopolistic behaviour demonstrated by the Pittsburgh Steel industry (Mechem, 1924) in the US to the collaborative approaches practiced in Silicon Valley (Kutay, 1989). That is not to suggest that MNEs do not still use their status with suppliers to ensure they are prioritised over their smaller competitors (Kilpi *et al.*, 2018).

SMEs can benefit from the sectorial advantage enjoyed by MNEs where there are regulatory or protectionist barriers to overcome and which require access to substantial resources (Teece *et al.*, 1997; Oparaocha, 2015) and not available through their usual networks (Dimitratos *et al.*, 2016). MNEs extend their integral networks by creating small business units from where they source innovations, and who can provide insight on local culture (Vahlne and Johanson, 2013; Teece, 2014), a practice increasingly prevalent as globalisation grows and mass production yields to flexibility (Castells, 2000). These autonomous business units have their own DCs suited to the enterprise (Teece *et al.*, 1997) and are closer to innovation (Teece, 2007). MNEs which set up business units may more accurately be described as “*Multinational Business Enterprises*” (“MBE”) which Vahlne and Johanson (2017,1088) adopt from Christos Pitelis and David Teece (2011) to highlight the current approach of prioritising process over structure. Both MNEs and MBEs are referred to in this study and are reasonably interchangeable as organisations which have relevance to SMEs and their networks. These subsidiary units simultaneously operate internally and externally of the headquarter organisation. This resonates with an

organisation having a headquarters coordinating a “*nexus of contracts*” as mooted by Teece *et al.*, (1997,517). A consequence of ceding power to their business unit, is a change in relational dynamics as the holding company must rely more on persuasion rather than dictating policy (Vahlne and Johanson, 2017).

While MNEs may offer an expedient route for SMEs, there is a reciprocal advantage to be gained by MNEs who reach beyond their internal network to access SMEs as leaders of innovation (Iturrioz, Aragón and Narvaiza, 2015). SMEs can act as pathfinders for MNEs (Teece, 2007). For instance, an area being regenerated by new housing may not initially achieve the demographics to justify the investment by one of the national supermarket operators. Therefore, they are prepared to buy a business from a local operator once the trading levels are sufficiently established, thereby paying more to mitigate risk (Teece, 2014). Thus, SMEs become an additional resource to acquire access to new markets, although such a motive might be argued as defensively driven: the two types of organisations operate in different a manner, MNEs seek to add value while SMEs innovate niche services (Bagheri *et al.*, 2018). Despite this, García-Ávarez de Perea *et al.*, (2019) consider they share similar characteristics.

Ecommerce enables MNEs and SMEs to compete head-to-head in global markets and technology has lowered the barriers to exporting (Teece *et al.*, 1997), albeit SMEs still face resource challenges (Almodóvar and Rugman, 2015; Agostini and Nosella, 2017). Traditionally MNEs have responded by choosing to interrupt the SME competition either through acquisition, or replication. However, this pattern of behaviour is changing and poses a threat to micro-businesses (those with fewer than ten employees) in areas such as email and domain hosting, or accounting as companies such as 1&1 Ionis, and QuickBooks aggressively enter their markets through ‘predatory pricing’ (Teece, 1997).

MNEs can afford to take a position in another market as a statement of intent and to impose a further competitive barrier to entry for others (Barney *et al.*, 2011) which results in a tensional relationship with SMEs. A lack of resources may make SMEs feel forced to either work with MNEs who exploit their innovations or, inclined to create external networks through which to compete with them (Huggins and Johnston, 2010). When

MNEs offer to share resources with SMEs it may be more likely to further their own SCA, and not necessarily to share a mutual advantage. Reliance on MNE resources can be expedient and at the cost of independence, something which is likely to be counter intuitive to entrepreneurial SMEs and their ‘fortress enterprise’ mindset (Huggins and Johnston, 2010). For SMEs to choose between MNEs or network participation, they need to be able to weigh value (by whatever metric) to the advantages or disadvantages of each option. This choice involves considerations beyond pure income generation.

Network indirect value

Indirect value is derived by facets which may lend an indefinable value to an organisation by a positive association with a sectorial or societal influence.

Network indirect value – CSR

Organisational culture has come into focus as social, ecological, and environmental concerns have grown in prominence. CSR has, perhaps, been regarded as a distracting corporate burden of little substance or real investment value. That view is changing to embrace and even promote CSR (now evolving to Environmental, Social, and Governance – “ESG”) as a measure of SCA for those organisations which are culturally attuned, combining sustainability with ethical standards with which to attract investment (Upadhyaya *et al.*, 2018; Sciarelli *et al.*, 2020; Eng *et al.*, 2020). The culture of an organisation and attitude to CSR affects its stakeholders (including employees) and strategic and investor relationships (Siddiqui *et al.*, 2016; Upadhyaya *et al.*, 2018) and therefore, the networks in which they operate.

The global economy is becoming more aware of the importance of factors other than financial metrics with a steady but increasing importance being placed on environment. Barney *et al.* (2011) consider CSR might become perceived as an essential resource to be exploited. To succeed CSR needs to be credible, sensitive to local conditions, and to the developed state of the economy being entered. Emerging economies are concerned with infrastructure and poverty, while those which are mature are more focussed on

environmental matters. However, as there a cost to this, the risk of failure raises stakeholder tensions between them (Upadhyaya *et al.*, 2018).

Increasingly, there is an appreciation that real or perceived abuse of these facets can cause short or long-term reputational damage (Ripollés and Blesa, 2019) which MNEs are better resourced to counter-act and therefore, such damage is more likely to be terminal to SMEs (Teece *et al.*, 1997).

At government level, trading relationships are delicately balanced with civil rights and other concerns sometimes leading to a reluctance to challenge openly, opting to exercise 'soft power' instead. Social media has proved to be an effective weapon in this area as the coffee chain *Starbucks* discovered in 2012 when public pressure, and not the government's revenue collection agency, persuaded them to pay more tax in the UK, although their motive might still be regarded by some as a cynical damage limitation move rather than an altruistic response.

An agile and culturally aware SME is well placed to inculcate CSR into its networks' values. This dimension adds to the importance of choosing partners in international markets who will not put an organisation's reputation at risk (Barney *et al.*, 2011) and is a matter for the governance of an organisation and its networks. Therefore, an SME's position on CSR and approach to internationalisation, networks, and choice of partners may be of strategic importance, and a potential source of NC.

2.1.4 Network risks

The culture of a strong network reflects that required for organisational growth in economic sectors which are subject to 'elasticity' and price sensitive according to demand. Just as SC is required at its formation, an organisation's, and its network's AC is critical to the exploitation of their own resources in existing or to enter new markets, especially if they are unpredictable (Teece *et al.*, 1997; Li *et al.*, 2018). The essential feature is the ability to organise external resources which enhance those available

internally and through them, limit exposure to the risks of entering established markets as a small, alien, newcomer. In this respect, there is a need to identify network partners who are suitably aligned to combine capabilities for mutual benefit and ideally, can introduce a competence of value which is a market differentiator (Learned *et al.*, 1969).

This may explain why there is evidence of network members from outside the region being valued more (Huggins and Johnston, 2010). Cabanelas *et al.* (2013) also highlight that critical need for alignment of; similar values; trust; and with previous network experience being a more reliable indicator of performance of an individual member (Eisenhardt and Martin, 2000). For networks to be effective, they must be a dynamic resource for their participants which supplements and complements each other's, and on which they can draw to become as far as possible, a VRIN (Hallam *et al.*, 2018).

If these required attributes for success do not exist, it follows that a network faces a constant risk of ineffectiveness and failure (Vahlne and Johanson, 2013). Although the culture of participation and interaction may not be constrained by location (Castells, 2000), its quality may be compromised (Alinghian and Razmdoost, 2018) by, for example, time zone differences. Therefore, the advantages gained by one participant may not be shared by others (Vahlne and Johanson, 2013). ICT has a notable impact in knowledge sectors and Byrne *et al.*, (2021) find that clusters develop around areas with a pool of skilled labour. Adding to the KS risk referred to earlier, it may also engender complacency in staff with skillsets in demand.

Equally, a challenging environment will expose underlying problems or tensions (Iturrioz *et al.*, 2015). While failure may be caused by members' individual motives, it may also be symptomatic of an insufficiently managed cultural mismatch. That need for alignment underlines the importance that the parties can share common values or at least, allow an easy accommodation of each other's. However, it is important to differentiate this cause from the eventual demise of a network merely reflecting the need for it ceasing to exist (Lawton-Smith *et al.*, 2012; Alinaghian and Razmdoost, 2018). A member's withdrawal may simply reflect the network no longer delivering the required value (Vahlne and Johanson, 2013) and in that event, knowledge they have gained will quickly become

redundant (Ruzzier *et al.*, 2017). Nyström *et al.*, (2017) posit that members become so committed and dependent on their networks, and oblivious of any shortcomings that they find it difficult to withdraw (Hallam *et al.*, 2018) even when the knowledge that instigated the formation of the network is causing negative impacts (Huggins and, Johnston 2010). Hence, the importance of good governance.

Drawing from the literature referred to in this section, the expected attributes of the networks by members are set out in Table 2.3. Inevitably, characteristics will reflect on one or more individual member either positively (Strong) or negatively (Weak) with corresponding impact on the value of its NC.

Table 2.3: Member attributes (researcher's synthesis)

Member attributes	Strong	Weak
Formation/entry reason	Shared values/objective	Agenda driven
Performance expectation	Aligned	Exploitation
Extrinsic value	Differentiator	Duplication
Location	Irrelevant	Supplementary/complementary
Network experience	Past performer	New/inexperienced
Termination/extraction	Mutual Agreement	Tensional

Societal backdrops may influence who might become members of the network, as might their role being either operational, or as stakeholders with a common interest (Almodóvar, and Rugman, 2015). This can affect quality of governance (Carver, 2006) as members might participate as a matter of right, rather than through merit, and may not add value; they may even cause damage.

There is no ideal structure or size; networks must decide for themselves with whom and how to engage and the overriding necessity for success is congruence of objectives (Iturrioz *et al.*, 2015; Baimai and Mukherji, 2015). As an adaptable capability is desirable, there is strength in numbers; a network of two is inevitably broken up by one withdrawing (Adler and Kwon, 2002). The balance must be weighed between size, agility, and extrinsic contribution.

The literature demonstrates the identifiable benefits that can be gained from networks. As with all assets which require investment, there are risks attached. This underlines the importance of culture and governance.

2.1.5 Network governance

Networks shape, and are shaped by, the individual members (Nysrtöm *et al.*, 2017) who determine how their network operates and its culture (Alinaghian and Razmdoost, 2018).

The success and strength of networks depends on characteristics which (Somhlahlo, *et al.* (2016) identify as the level of trust and reciprocity between their members, equality (Nysrtöm *et al.*, 2017; Cavalcanti, and Giannitsarou, 2017) with no one member assuming control (Vahlne and Johnston, 2013), and participation being consensual (Cabanelas *et al.*, 2013). Although networks offer the ability to be equality enhancing, they are not inequality eliminating. A member's position within the network may be due to their level of activity, or result from external perceptions (Jordão and Novas, 2017; Nysrtöm *et al.*, 2017). Equally, the governance of the network may be dictated by the nature of the network (Barney *et al.*, 2011) and the size of individual member organisations within it (Jordão and Novas, 2017). Castells (2000,260) distinguishes between three member types: The 'networkers' who initiate and are central to the network; the 'net-worked' who are available and engaged in the network's business; and the 'switched off' who receive instructions once decisions are made in a one-way process. These roles directly affect the value organisations derive from their networks, the NC, the 'how'.

Governance also requires the ability to strategically mobilise and form an established transactional network to create mutual value (Roy, 2012), ensure that all its members benefit, and are aligned to a common agenda, objectives, and values (Jordão and Novas, 2017; Alinaghian and Razmdoost, 2018; Omar *et al.*, 2020). As with SC, constant maintenance is required.

Third party agents have a role in this; working with them, networks can use SC to alter international relations and inject CSR (such as addressing child labour in the clothing industry). This highlights the importance of selection. While these can be effective arrangements in acquiring legitimacy, without due diligence they are exposed to operational, organisational, and reputational risks. As with any resource, active management is required or any advantage gained in overcoming LoF risks being lost through even temporary neglect (Teece, 2007; 2014; Harrison *et al.*, 2010; Huggins and Thompson, 2015).

Informal networks are more likely to govern through the SC of internal management rather than adopt a formal governance structure. SC can still be effective; there is evidence of a high correlation between Directors' network and ESG performance being positively impacted by the presence of women (Harjoto and Wang, 2020). Vahlne and Johanson (2013,192) recognise that an individual participant's performance can provide a "*networking advantage*" which also mitigate risks including those heightened by international ventures (Almodóvar and Rugman, 2015). As such, they exist on an understanding and expectation of performance built on trust.

Successful informal networks assume that members will join, leave, and possibly re-join as appropriate opportunities arise or cease to exist. As relationships are a distinct feature of networks, it is how a member leaves a network which is relevant; a member benefitting from KS and leaving to exploit it for their own, and not shared, benefit breaks the unwritten rules of Somhlahlo *et al.*, (2016). The leaver risks being unable to re-engage in future with the same or other networks through reputational damage. Alternatively, a failure to perform is more likely to be handled by disengagement or expulsion rather than any formal action. Therefore, governance through SC is possible (Ripollés and Blesa, 2019) and SMEs who regard a network as an essential resource will jealously guard its integrity.

The significance of networks to SMEs and their governance intensifies in challenging trading conditions when the ability for opportunity exploitation may be compromised by

Network Capital: How UK SMEs recognise its value in their international strategy?

external factors. In 2020, UK SMEs faced several uncertainties in key areas that impacted on their ability to operate internationally. After triggering a move towards “de-globalisation” (Ding *et al.*, 2019,1) the USA initiated a Trade War with China the consequences of which inevitably affect other foreign suppliers. The USA also imposed sanctions on Iran, Russia, and other countries which obliged its trading partners such as the UK to support and comply with those measures. This adds to the instability of markets due to geo-political activities and tensions through damaging activities and disruptive events in countries such as Syria, Turkey, and Ukraine.²

Strong governance is necessary to deal with economic ‘shock’ events such as these (Herbane, 2019). Global concern is growing over the environment and the impact of the world’s population on climate change highlighted by the recession of the artic glacier, the intensification of Australian bush fires, mass immigration, and the destruction of the Amazon forest prompting governments such as the UK to unilaterally pledge a ban on products such as diesel fuelled engines. Other shock events are foreseeable but unpredictable, such as volcanoes or virus pandemics which disrupt normal trading and destabilise economic confidence.

Herbane (2019) found SMEs are hardest hit by these events and their resilience may be affected by other factors such as location. Therefore, preparing strategies for such events is important. Just as individual participants gain power through network connections, so can they benefit from buffering when resilience is required (Byun *et al.*, 2018).

A recognisable model of governance is illustrated with the independence of the owners, board members, and Senior Management Team (“SMT”) between which invisible boundaries exist. The Board plays a critical role in this, ideally with independent non-executives in place to ensure balance and checks on their colleagues. Boards should act as,

² The review is in the context of 2021, however these events resonate at the time of submission, four years later.

Network Capital: How UK SMEs recognise its value in their international strategy?

“Ownership one step down rather than management one step” (Carver, 2006,6)

Tension with a Board, especially those where stakeholders harbour different agendas can make them less effective and fail to reach the ideal of acting in,

“A virtuous cycle of respect, trust, and candour” (Sonnenfeld, 2002,5).

In practice, for many micro and small enterprises the management and ownership are one and the same, and ill-resourced or disposed to hire independent guidance. These may be the enterprises who are likely to be attracted to informal networks. However, as set out in Figure 2.2, that does not abrogate the imperative for network governance even if it is not delivered in a structured form, and is heavily reliant on SC.

Drawing from the literature, Figure 2.2 sets out the implications for networks with SC at either end of the spectrum and resonates with the membership attributes illustrated in Table 2.3.

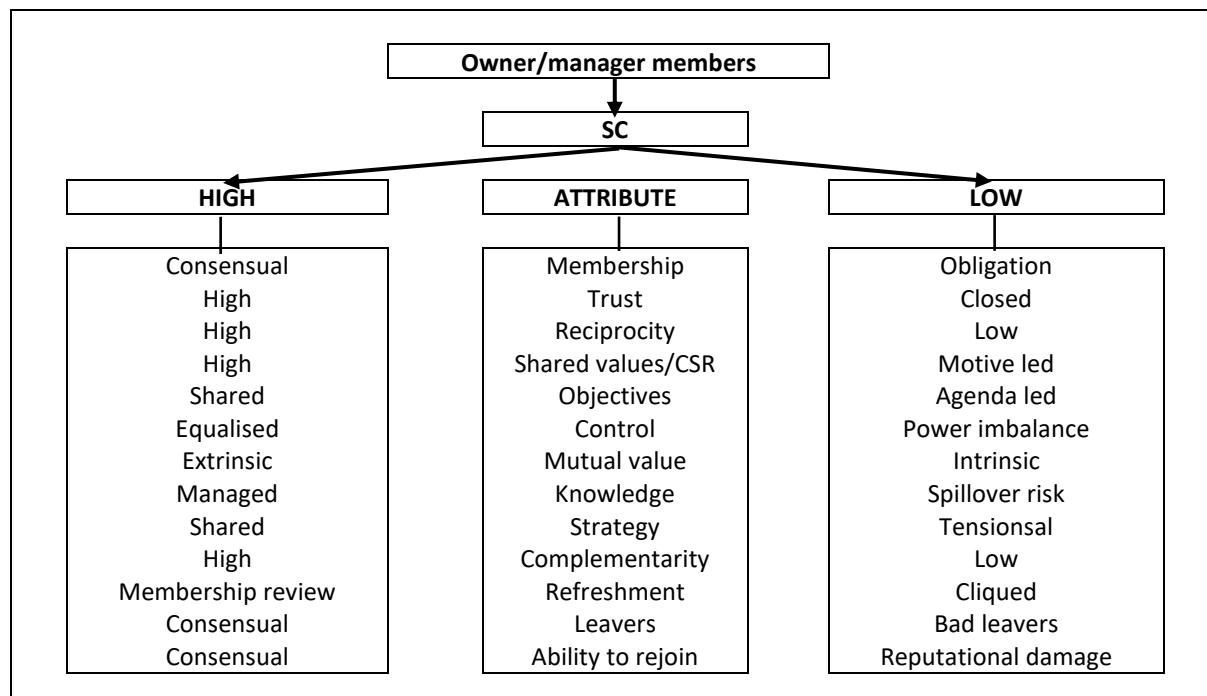


Figure 2.2: Informal network governance (researcher's synthesis)

The importance of governance, and its essential duty to an organisation to create strategy, are areas which may not necessarily be understood or assigned any priority by SMEs or their networks. As a business grows, becomes more complex, and wants to enter new and foreign markets, those priorities may change as referred to in Chapter 1 (Cabanelas *et al.*, 2013; Almodóvar and Rugman, 2015). However, the existing literature does not directly address this.

2.1.6 Networks and Strategy

Strategy is defined as,

“a coherent set of analyses, concepts, policies, arguments, and actions that respond to a high-stakes challenge.” (Rumelt, 2011,6).

There is evidence of a lack of strategy creation by SMEs who may conflate it with business planning or problem solving (Teece, 2007). While solution finding is a DC, it does not provide the ability to strategically “sense, shape, and exploit opportunities” (Teece, 2014,16). This requires an entrepreneurial rather than resource management mindset (Teece, 2012; Tzokas *et al.*, 2015) and experience (Schweisfurth and Raasch, 2018). Where strategies exist, they are possibly ‘emergent’ (unplanned) rather than ‘deliberate’ (planned) (Mintzberg and Waters, 1985,257: Salder *et al.*, 2020). Organisations which are production orientated may only fall into exporting as a reaction to a random enquiry from abroad (Dimitratos *et al.*, 2016) rather than through an objective to internationalise.

Darbi and Knott (2016) find that organisations are less likely to create strategy in informal economies. Herbane (2019) also finds a mixed attitude amongst SMEs to the importance and value of strategy creation which he suggests may result from it not being a legal requirement (although he does not suggest how that might be enforced). Any lack of strategy will inevitably exclude the involvement of networks. A concern with Herbane’s proposal is that it may spawn an industry of ‘strategist consultants’ who offer services to fulfil legal compliance when what is needed is a strategy which is effective. Even then, if there is no intention to execute, it becomes worthless.

In acknowledging that strategy requires formal planning to avoid missing valuable insights, Barney (1991) recognises that it can be easy to duplicate rather than innovate. An example may be seen in business schools which broadly teach the same management models and frameworks in narrowly differentiated methods (Teece, 2007). Therefore, unless academic organisations can identify, inculcate, and develop their VRIN, they risk producing homogenous managers. However, as the academics provide framework options, this is a challenge which Teece *et al.* (1997) place firmly at the feet of managers (Abrahamsen *et al.*, 2016). It remains the case that the inclusion of academia may provide a source of SCA.

The choice of whether a SME collaborates to benefit from a defensive strategy or adopt a more open approach is likely to depend on the culture of those who control it. Srisathan *et al.* (2020) found that organisational sustainability was aided by open innovation and therefore, suited to networks. Although, as individuals use their personal SC to participate in networks there exist several risks; the organisation is dependent on their cultural sensitivity (Pinho and Prange, 2015); their values may not reflect those of their organisation; the benefit may be for the individual not the organisation; the value of their network and knowledge associated with it may not be captured; and risks being lost if they cease to engage or move out of the organisation (Huggins and Johnston, 2010; Acs *et al.*, 2013).

Darbi and Knott (2016) refer to an earlier definition of 'Strategic networks' as,

"long-term, purposeful arrangements amongst distinct but related for-profit organisations that allow those firms in them, to gain or sustain competitive advantage vis-à-vis their competitors outside the network" (Jarillo, 1988:32).

Strategic networks offer the potential to unlock economic success in weaker areas (Lawton Smith *et al.*, 2012), and to grow on a global stage to shape practice, policy, and culture (Siddiqui *et al.*, 2016; Jordão and Novas, 2017; Zakharov, 2020). However, for members to remain influential within such growth, they must retain the ability to be engaged, innovative, and reflect the characteristics of entrepreneurial disruption. This

enables strategies to be built simultaneously both internally and externally within the chosen network which successfully deliver value to customers, and create new markets (Teece, 2014; Jordão and Novas, 2017; Hallam *et al.*, 2018). It is that spirit of collaboration that Danko and Crhová (2024) observe in the Czech Republic knowledge-intensive sector; that in a fast-moving economy, strategy needs to be balanced between the short and long term. This is something reflected by the dilemma of government and its constraints discussed in Chapter 1.

Hence, networks are more likely to be an attractive resource to SMEs with a culture of curiosity, and who may find the forum helpful in forming strategy to the point when it is not possible to do so alone (Nysröm *et al.*, 2017; Kale and Başar, 2018). Agreeing a joint strategy can create its own relational tension (Harrison *et al.*, 2010) which requires management (Cabanelas *et al.*, 2013). That tension may surround the member's existing or intended position within the network (Abrahamsen *et al.*, 2016), and whether they choose to confront or conform with the majority view (Öberg *et al.*, 2016).

While SMEs differentiate through being 'niche', there exists internal competition to commit limited resources to strategies nuanced by a 'risk and reward' assessment (Herbane, 2019). SMEs are only prepared to commit to investment in strategic internationalisation when the return in the long run is justified and if they can diminish the potential for LoF through exploiting opportunities (Dimitratos *et al.*, 2016; Li, *et al.*, 2018). This constrains the ability of SMEs to create a VRIN which can deliver the strategy especially if government aid, accessible by larger organisations, is not to them (Ashourizadeh and Schott, 2016). When entering new or international markets, SMEs need to harness sufficient and effective resources which replicate those available to MNEs.

2.1.7 Networks and internationalisation

If SMEs need to find international markets to grow, the use of networks is essential to executing an international strategy. Oparaocha (2015) discusses the lack of agreement

Network Capital: How UK SMEs recognise its value in their international strategy?

on a definition for internationalisation. This research focussed on those SMEs who do more than merely export from their domestic market. This requires the creation of assets or networks within foreign territories to create a route to their markets with the deliberate intention of establishing and maintaining a recognisable presence (Kirwan *et al.*, 2019).

Internationalisation is achieving “*a foothold*” (Barney *et al.*, 2011) which is defined as

“*a small position that a firm intentionally establishes within a market in which it does not yet compete*” (Barney *et al.*, 2011, 1304)

This definition was closely mirrored by Upson *et al.* (2012).

International sales can be achieved through platforms such as Amazon (business to consumer) and Alibaba (business to business) who provide an accessible, efficient, and cost-effective service (Scuotto *et al.*, 2017; Hsieh *et al.*, 2018). However, sales alone do not meet the foothold test. Furthermore, it exposes the SME to direct competition with transparent comparison pricing and limited ability to demonstrate a ‘Unique Selling Point’. Amazon provides a platform which enables SMEs to access wider markets, and simultaneously provides the host with perfect market information on pricing and volumes. This enables Amazon to choose if, and when, to compete with its customers (Brandt, 2011), an example of a MNE exploiting a SME for its own SCA.

However, this is not always a preferred strategy where the domestic market is large and demand unsaturated, e.g. China (Li, *et al.*, 2018). The earlier adoption of internationalisation is reinforced by the notion of ‘Born Globals’ (“BGs”) introduced by Monferrer *et al.* (2015,19); enterprises who seek to internationalise from the outset (Narayanan, 2015; Hsieh *et al.*, 2018; Bagheri *et al.*, 2018) requiring an intensity in their relationships to overcome LoF (Hughes *et al.*, 2017). Hi-tech companies have become notably adept meeting this challenge by at creating ‘global hubs’ through use of ICT.

Huggins and Johnston (2010) find a clear correlation between innovation and SC through and between networks to realise opportunities and fulfil their international ambitions

(Hânell *et al.*, 2018; Ripollés and Blesa, 2019). Strong and strategic networks offer SMEs the ability to access and share capabilities which enable internationalisation at a reduced cost and risk (Vahlne and Johanson, 2013; Narayanan, 2015; Iturrioz *et al.*, 2015). This allows under resourced SMEs to compete with larger organisations and improve reputation (Jordão and Novas, 2017).

Notwithstanding the importance of technical innovation to internationalisation (Bagheri *et al.*, 2018), standardised product can be exported with only, perhaps, minor changes to presentation or branding. For service-based SMEs, especially those offering professional expertise, there is an additional requirement to replicate the standards they offer in their domestic market for both existing and prospective clients. Whereas the failure of a product through performance or sales results in financial damage to the seller, failure in service can lead to intensive reputational damage (Ripollés and Blesa, 2019) and therefore, to a source of SCA (Barney, 1991).

As the partners of one of the ‘Big Five’ global accountancy firms Arthur Andersen discovered in 2002 after the Enron scandal, the actions of a few can be terminal for an organisation and affect regulatory policies pan-regionally (Teece, 2007). On a smaller scale, the ability of an independent internet-based florist to send flowers to arrive within 24 hours and 500 miles away is a valuable capability. However, if the flowers arrive late, on time but squashed, or in poor condition, the recipient is likely to blame the sender and not the courier who provides the only face to face contact in the process. The reputation and sales prospects of the florist are more likely to be impacted than that of the courier, often a MNE.

Therefore, for SMEs with limited resources, the choice of, and value derived from, a network may be much more acute, nuanced, and not necessarily cost driven (Huggins and Thompson, 2015). In this respect, it is not sufficient to rely on instinct alone when deliberation is required and essential to ‘micro-nationals’ who rely on a vital network (Stoian *et al.*, 2018). The participation in an effective network which offers SMEs the opportunity to compete and communicate within their own space and culture is an attractive progression from the standard platforms, and simultaneously provides mutual

Network Capital: How UK SMEs recognise its value in their international strategy?

protection through shared experience, knowledge, and strategic thinking to create a SCA through the '*network power*' of Junfeng and Wei-ping (2017,171).

Figure 2.3 sets out the progression of value through growth through internationalisation, the barriers discussed, culture, and the objective of the network. The model illustrates the influences on successful entry and the introduction of a MNE as an optional partner whether to a SME or as part of a network. However, it will be noted that some control over governance is inevitably abrogated and therefore affects value. If there is reputational loss through the actions of the MNE, the damage to the SME/Network may be disproportionately greater and therefore, the choice of partner strategically nuanced.

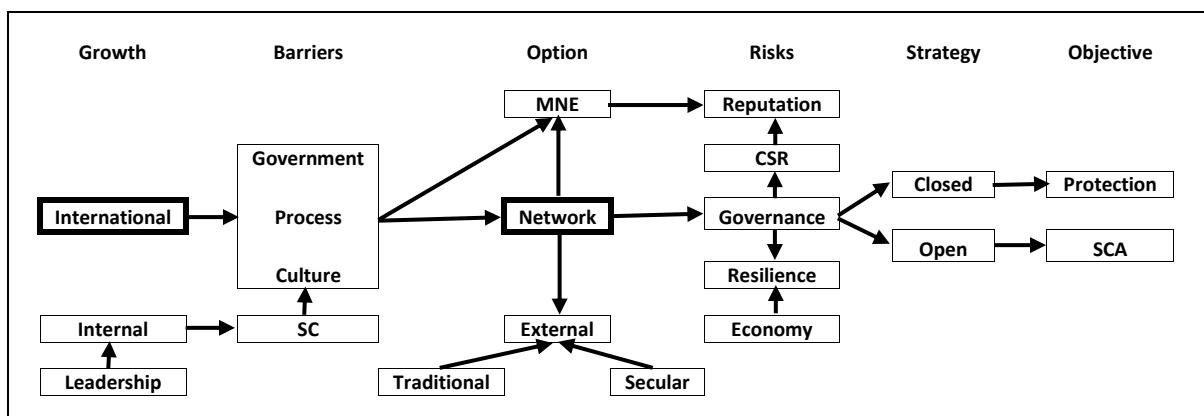


Figure 2.3: Paths to Internationalisation (researcher's synthesis)

Whatever the reason for a SME to participate, it needs to be understood both strategically and in terms of its contribution to the organisational NC. Without that understanding, the deliberation is surrendered in favour of intuition. While this may achieve the same result in the short term, it retains the inherent weaknesses as that approach fails to exploit the potential of NC. The cultural attitude toward strategy is of key importance.

The value of networks, and their potential contribution to strategy, especially with the objective of internationalisation, is lost if SMEs do not recognise it.

2.1.8 SME culture

Culture is defined as,

“the collective programming of the mind distinguishing the members of one group or category of people from others” (Hofstede, 2001,9).

The definition of NC offered by Huggins & Thompson (2015) does not reference organisational culture which is an inherent and implicit facet of successfully seeking, creating, and maintaining valuable relationships and networks through SC. Culture influences how individuals, organisations, and governments behave, react, and by extension, the networks in which they participate, their inclination to create strategy, and to internationalise. While academic and government institutions may enter networks with the deliberation envisaged by Huggins and Thompson, it may be more instinctive for SMEs, particularly those which are entrepreneurial by nature, and whose agility enables effective deployment of DCs through their organisational drivers (Baimai, and Mukherji, 2015). Therefore, understanding this distinction may enhance an alignment of network objectives and informs the choice of SME type for this study as those which are ideally organisationally curious, aware, and sensitive to societal and cultural change.

The organisational culture is set by its leadership (Eisenhart and Martin, 2000; Srivastava *et al.*, 2013; Nysröm *et al.*, 2017) who may be the founder, head of a family, or a combination of shareholders, investors, executive and non-executive directors sitting as a Board, and SMT. They are responsible for organisational governance, strategy, and structure (Barney *et al.*, 2011; Gaganis *et al.*, 2019; Salder *et al.*, 2020). The leadership, often an individual in SMEs (Hsieh *et al.*, 2018), can create or impede the ability of organisations to incubate and manage resources, capture or lose entrepreneurial spirit, align or disorientate with the environment in which it operates (von den Driesch *et al.*, 2015; Limaj and Bernoider, 2019). Their experience and SC are relied on to substitute the resources available to MNEs (Pinho and Prange, 2015). The internal culture will also affect attitude to risk; Zeafarian *et al.* (2016) found that family firms are more risk adverse

to internationalisation, only becoming bolder after a first successful entry. This raises the question of whether effective and necessary governance is achieved.

Rangus and Slavec (2017) assert that as the ability to innovate tends to be more individual in SMEs, it is necessary and desirable to effect employee involvement in creating strategy (von den Driesch *et al.*, 2015; Fareed *et al.*, 2016; Sulistiyan and Harwiki, 2016; Irwin *et al.*, 2018; Emeagwal and Ogbonmwan, 2018; Boohene *et al.*, 2019). Organisational Culture shapes how employees behave, are motivated, their attitude to risk, and receptiveness to change (Teece *et al.*, 1997; Teece, 2007; Baimai, and Mukherji, 2015; Dimitratos *et al.*, 2016; Jordão and Novas, 2017; Gaganis *et al.*, 2019). Societal culture has influence too; Castells (2000) finds that in some Middle East countries where there is widespread ambition to be business owners, employees are regarded with suspicion as potential future competitors.

Vahlne and Johanson (2017,1090) posit that the SMT is often the 'bottleneck' to growth. An inability to build relationships, deploy agile strategies, adapt to an environment complicated by market uncertainty, and lacking in intelligence, are causes of intuitive reactions (Vahlne and Johanson, 2013). Teece (2007) points to a management tendency to focus on established resources which prevent them from raising their eyes to consider innovations on the horizon as required to create strategy. In a dynamic environment, any lack of clarity can cause indecision (Limaj and Bernoider, 2019; Eisenhardt and Martin, 2000). If the necessary skills are harnessed, there are benefits to both employee and customer loyalty which reflects in profits generated (Kale and Başar, 2018).

Figure 2.4 sets out a classic framework for the governance and leadership of an organisation (influenced by Carver, 2006) which is nuanced by the type of ownership and its mindset.

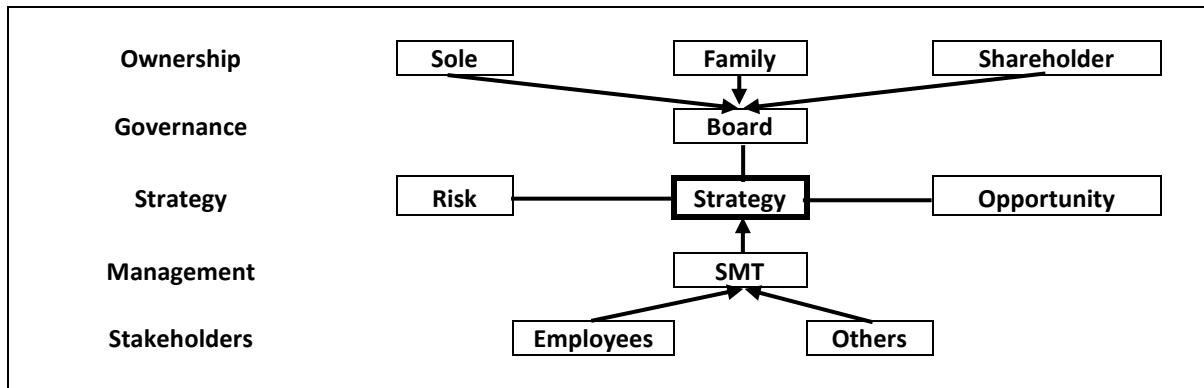


Figure 2.4: Ownership governance (derived from Carver, 2006)

An entrepreneurial mindset which combines innovation and market orientation will be open to alternative solutions (Menguc and Auh, 2006; Baimai, and Mukherji, 2015; Somlahlo *et al.*, 2016; Dimitratos *et al.*, 2016; Scuotto *et al.*, 2017; Salder *et al.*, 2020). Entrepreneurial organisations who possess a cultural advantage instigate the creation of networks with a clear strategic agenda (Cabanelas *et al.*, 2013; Nyström *et al.*, 2016; Ashourizadeh and Schott, 2016). It should follow that SMEs as entrepreneurial pioneers, approach networks with the same clarity however, that aspect has not been established.

Culture, whether external or internal, is a major influence on organisational performance. It can impact positively or negatively on governance, strategy, and internationalisation. It is an intangible aspect which can add or diminish a network's NC depending on participant members' understanding of its essence.

2.1.9 External influences

SMEs are exposed to cultural influences of those territories in which they reside and those they wish to enter.

Societal culture

To understand and be perceived to respect (rightly or not) the culture of a territory is essential to successful market entry, especially for immigrants (Bisignano and El-anis, 2019). Overcoming LoF requires investment in SC with the sensitivity appropriate to the

local market to build the trust which may only deliver results later in the process (Vahlne and Johanson, 2013). The culture of a network affects the ability of its members to engage internationally when patience, and diplomacy may be required to successfully establish relationships, especially in traditional or non-secular societies where different approaches are needed (Ashourizadeh and Schott, 2016) or if there exists what Castells (2000,22) refers to as strong '*Cultural Nationalism*'.

That essential attunement to the role and importance of culture extends beyond that within an organisation to its other stakeholders and from an international perspective, there are two prime areas of culture to consider; that of the SME and its network; and that of the market which the SME wishes to enter. Ashourizadeh and Schott (2016,320) discuss the 'private' and 'public' networking spheres of entrepreneurs. The private sphere is the immediate network partners and advisors who are personal contacts and may include families and friends (James *et al.*, 2017; Neumeyer *et al.*, 2018; Estrada-Robles *et al.*, 2020). The family dynamic can be of special importance to immigrants seeking an economic foothold in their chosen country and their ability to break away from their immediate family can be influenced by the quality of their educational background (Tata and Prasad, 2015). They may also retain the advantage of family and other contacts in their home country although these ties can equally prove restrictive to Value Progression (Ashourizadeh and Schott, 2016; Hsueh and Gomaz, 2019; Herroro and Hughes, 2019).

The public network is one developed internationally through a deliberate strategy of building valuable reciprocal relationships across different territories which requires a curiosity about new markets to gain knowledge, and learn the protocol considered acceptable to initiate business discussions. The cultures within those territories or countries will vary and depend on their prevailing attitude to facets including secularity, political and economic policies, ethnicity, and gender (Ashourizadeh and Schott, 2016). There is evidence that some societies prefer to hire compatriots, while others prefer those from selected territories (Sidhu *et al.*, 2014). Research by Schott and Cheraghi (2015) with a focus on innovation, found that while women form stronger private networks and expend more effort in building bonds (Neumeyer *et al.*, 2018), men thrive in weaker and public networks. Traditional societies are often associated with religious and/or

gender discrimination however, in a study focussed on Northern Ireland, a part of the UK with a modern history of profound sectarianism, McAdam *et al.*, (2019,466) found a patriarchal attitude still prevalent towards women entrepreneurs. They propose the notion of “*Gender Capital*” before concluding it only gains traction if the national culture is perceived to be accommodating in the public arena. This is supported by Davies and Giovanetti (2022,2) who describe “*Latent Network Capital*”. They find that gender can act as a barrier to SME finance, business education, and networks. The finance gap is being filled by crowdfunding where any inherent bias is partially dissipated.

In other cultures, networks are deliberately built on careful and discriminatory selection to protect and provide value to small “*elite-clique*” (Gu *et al.*, 2019,70; Ding *et al.*, 2019) requiring a high degree of trust (Lee, 2017). However, that closeness whether familial or not, carries the risk of complacency and suppresses the stimulation necessary for innovation (Teece, 2007; Iturrioz *et al.*, 2015; Baimai, and Mukherji, 2015; Hallam *et al.*, 2018). Such organisations (and countries?), perhaps resting on their past reputation, risk damage as they fail to keep pace with dynamic market environment (Teece *et al.*, 1997).

Table 2.4: Cultural sensitivities (researcher’s synthesis)

Sensitivity	Traditional/non-secular	Secular
Immigrant	High	Medium/high
Gender	High	Medium
Ethnicity	High	Medium
Religion	High	Low
CSR	Low	High
Family – high orientation	High	Low
Educational background	Low	High

Drawing on the literature in this section, Table 2.4 summarizes the potential cultural barriers faced by an organisation and its network on entering a foreign market with local sensitivities. While a subjective and generalised view is inevitable, this simple rating exercise indicates that there are likely to be more cultural pitfalls in entering a territory,

than not. While it is not the explicit intention of the research to explore cultural sensitivities, it is recognised that the field work might reveal some aspects as a potential barrier to successful internationalisation and therefore, a matter of strategic concern.

If high SC is core to success at a societal level, it follows that it should be inherent within a network's individual members and participants who are, therefore, more adept at negotiating cultural sensitivities. While the local culture of a territory may constrain the value of a network domiciled within it or as a foreign entrant, the level of SC within that network can mitigate its impact. The summary of internal and external influences and their environment are illustrated in Figure 2.5. below.

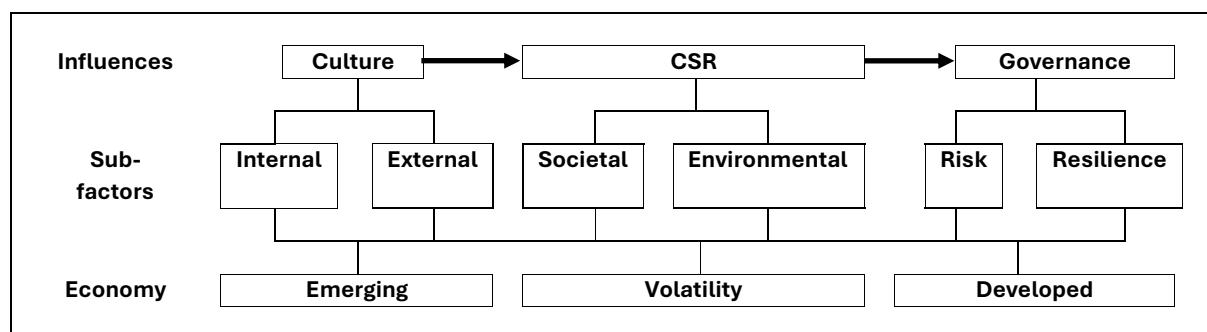


Figure 2.5: Organisations, external social conditions, and their impact. (researcher's synthesis)

Throughout this section, the constant theme has been around culture. From micro (internal) to macro (societal) it impacts, governance, strategy, and internationalisation. The justification of choosing the UK is set out in Chapter 1 as a reasonably benevolent economy in which to be domiciled and to attract FDI. Table 1.2 (Ease of doing business) supports this view however, the extent to which that is shared by SMEs will be reflected by their attitude to government.

The culture of mutual accommodation will only be achieved by understanding how SMEs use and value their networks. This will guide government towards strategic levers which help SMEs to enter new markets.

2.2 Networks – theoretical review

This section of the review considers NC in the context of theoretical frameworks relevant to NC and which inform the study.

2.2.1 The evolution from Schumpeter to Huggins and Johnston

Teece *et al.* (1997) provide a helpful commentary, tracing the evolution from Joseph Schumpeter's "Creative Destruction" (1934,83) to Michael Porter's "Five Forces" (1980,4), Jay Barney's "Resource Based View" ("RBV") (1991,109), and culminating in Teece *et al.*'s (1997,510) "Dynamic Capabilities". While the theories are concerned with growth and value, they characterise differing approaches; interrupting the status-quo (Schumpeter); defensive risk assessing (Porter); defensive resource building (Barney); capability organisation and opportunity exploitation (Teece *et al.*, 1997). However, their paper does not acknowledge the contribution of Jan Johanson and Jan-Erik Vahlne (1977,194) whose *Uppsala Model* and its subsequent evolution point to several characteristics found in NC through their form of SCA, and its relevance to internationalisation.

Other commentators might choose a different path to that of Teece *et al.* (1997) and focus on alternatives to the RBV. Witt (2008) discusses the diversity of approaches to *Evolutionary Economics* comparing the approaches of; 'Universal Darwinism' (making good choices without necessarily understanding the rationale); 'Schumpeter' (entrepreneurial innovation); 'neo-Schumpeter' (Research & Development in a competitive and dynamic market); and 'naturalistic' (working with the economic environment). As is often the case with such terms, academics struggle to agree on a single or set of definitions and therefore, the notions remains more conceptual than theoretical. Malerba and McKelvey (2019) concentrate on the Schumpeter approach by emphasising innovation and change which will be suited to dynamic markets.

While recognising the importance of distinctive resources, Hooley *et al.*, (1998) argue the identity of specific markets is where an organisation can retain a competitive position. This is a market orientated view of deploying both tangible and intangible assets. The positioning takes three forms; ‘Variety centred’ (product centred); ‘Needs-based’ (designing a product to meet a gap); and ‘Access-based’ (ease of route to market). Further decisions are required on price and quality positioning which is likely to be driven by brand reputation. This viewpoint is easily illustrated with examples of the approach being adopted by various manufacturers however it moves away from the principle of SCA.

The ‘Practice Based View’ seeks operational excellence as discussed by Bromiley and Rau (2014). This involves incremental changes (Bag, 2023) which combine to create substantial improvements in firm performance. In this way, the ability to compete is not reliant on a single, and perhaps unknown, valuable inimitable resource to which in any event, is only accessible to a few organisations. As such, this view requires a culturally different mindset to the RBV and, it could be argued, is less entrepreneurial.

The ‘Stakeholder Theory’ resonates with the principles of NC (Bridoux and Stoelhurst, 2014) and some aspects discussed in the previous section. Stakeholder management is concerned with the objective of creating value either on the principle of ‘fairness’ between stakeholders or through strict commercial and unequal terms. Two types of stakeholders ‘self-regarding individuals’ and ‘reciprocators’ are identified which resonate with Castells’ (2000) typology. Marcon Nora *et al.*, 2022 extend the discussion with ‘Actor-network Theory’ (“ANT”) arguing that while Stakeholder theory is internally focused on what an organisation can achieve for itself, ANT is concerned with the effect an organisation can have on its network. In this respect, it is similar to ‘Network Theory’ which considers networks, their variables and how their interaction affects outcomes (Borgatti and Halgin, 2011, Dee *et al.* 2017).

A hybrid alternative to the RBV is ‘Transaction Cost Economics’ (Williamson, 2010). This enables organisations to utilise accumulated resources from which they gain economies of scale and choosing which elements to outsource at any stage within the production cycle. While retaining a degree of self-reliance, the arrangement is dependent on BR

which may become tensional if competing organisations are sourcing the same suppliers. This relationship is not compatible with the creation of value within a network.

DC also attracts a divergence in perspectives. Racat *et al.* (2023) discuss 'Effectuation and causation models'. Effectuation is presented as being suited to finding solutions in dynamic environments while causation adopts the more structured approach of planning, assessment of risk against reward, and understanding the market. The model characterises the behaviour rather than capabilities of entrepreneurs. Again, the approach is not suited to the idea of NC,

'Green Innovation' seeks to combine the advantages of CSR/ESG discussed in the previous section by bringing products to market that appeal to customers and simultaneously are better for the environment (Azam *et al.*, 2022). It is suggested that to succeed, a high standard of Quality Management needs to be attained and maintained.

This theory will be limited to culturally sensitive organisations with altruistic values. The approach is complementary to 'Institutional' theory of internal organisational culture (Risi *et al.*, 2023). However, the Institutional perspective considers how organisations are framed by isomorphism and the pressures of; 'Coercive' (influences from external sources); 'Mimetic' (conforming with the conduct of similar organisations); and 'Normative' (adopting ostensibly or demonstrably credible behaviours). The theory is suitable for behavioural research and has limited relevance to the subject of this study.

These alternative perspectives all relate to fields in which the researcher is interested. However, in fulfilling the objective of discussing ideas which appeal to the SME audience, (see section 1.10 Research Methodology), theories which are relatively recognisable, straightforward to impart, and broad in their application, are appealing. The researcher therefore concurs with the view of Wang and Ahmed (2007) that the theory of DC is complementary to the RBV are more suited to organisational drivers (Angwin *et al.*, 2011).

2.2.2 Organisational drivers

Organisational drivers: Internationalisation and Liability of Foreignness, Firm Specific Advantages, and Country Specific Advantages

The researcher cannot be certain where the path to NC began. However, it is reasonable to start with Johanson and Vahlne (1977) whose Uppsala model proposes incremental growth in an organisation's domestic market and venturing internationally only once stability has been secured. This is consistent with enterprise growth models.

They propose that internationalisation requires organisations to build internal capabilities through processes to overcome the LoF. Entering international markets requires additional expense and the knowledge to overcome legal, political, and cultural barriers which can be resourced through networks (Srivastava *et al.*, 2013; Ruzzier *et al.*, 2017). Paloma Almodóvar and Alan Rugman (2015) refer to these capabilities as FSA which create organisational value. They also make the link to CSA – advantages on a national scale - which underlines the mutual interests of SMEs with that of the government under which they are domiciled. This aspect is explored further in Chapter 6 of this study.

While FSA is gained through experience, their description of CSA may be perceived as more market orientated perhaps reflecting the prevailing defensive strategies and policies of that time. While concluding that FSAs are most effective when internally derived, Almodóvar and Rugman (2015,688) develop the Uppsala model through discussing BR created networks which are “*dyadic*”, intuitive, and valuable and which, if they can be sustained, form an “*advantage package*” (Vahlne and Johanson, 2013,192), a form of SCA. However, that FSA can deliver value through superior performance indicates that it is this element, rather than sectorial factors which is important (Teece *et al.*, 1997) and therefore, one that is recreated in a network and not necessarily part of it.

The extension of FSA to CSA also resonates the discussion in Chapter1 of Herbane's (2019) conclusion regarding resilience of SME's and the subsequent impact on the

national economy: and, also in Chapter one, the prosperity of a nation being reflected by local performance (Hallam *et al.*, 2018; Ding *et al.*, 2019). This fits with the assertion that,

“Networks are appropriate instruments for a capitalist economy based on innovation, globalisation, and decentralised concentration,” (Castells, 2000,502).

This is possibly difficult for SME organisations dealing in the real world of business and only works as a concept if it is believed that the micro has an influence on the macro, rather than the latter controlling the former. It also suggests a combined FSA/CSA will create exponential benefits at both levels.

Organisational drivers: RBV, SCA, and VRIN

Porter’s dominant theories of organisational competitive survival through strategies to maximise opportunities and mitigate external threats are challenged by Jay Barney (1991). He sows the seeds for understanding DCs in setting out in his thinking behind SCA which he defines as an organisation,

“implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy” Barney, 1991,102).

This acknowledges SCA is not indefinite and remains under threat unless and until competitors either succeed in, or abandon, their efforts to eliminate it. He also advances the definition of ‘sustained’; something which is not limited by time, but by value to an organisation. To limit by time assumes that an advantage is eradicated by replication or replacement by competitors. Barney argues the key to sustainability is cognizance of an alternative strategy (which by 2011, he includes leveraging off networks). This, by the nature of a changing market, requires the capacity to be dynamic and employ the necessary “bundles” of resources, both tangible and intangible, to create a VRIN.

In describing these bundles, Barney remains focussed on internal resources which misses the extrinsic value highlighted by Alinaghian and Razmdoost (2018) and is

achieved through networks which subsequently create their own SCA and VRIN. His definition of 'sustained' requires a different mindset; one which is not determined by the actions of competitors and recognises its governance by value. Thus, even if a product or service becomes available through competitors, an organisation may still retain an advantage through prior brand establishment. There are numerous brands of jeans to choose from in the market, and yet Levi Strauss remains a best-selling name.

Sustainability requires an effective, coherent strategy to build and maintain value. The approach cannot afford to be protectionist and expose any vulnerabilities. A purposeful vision enables an organisation's management to simultaneously be dynamic, adhere to its values, and scan its market environment for future opportunities.

While the theory is posited at a time when underlying market conditions were relatively stable in comparison to the modern dynamic economic environment, Barney recognises the growing need for flexibility and for organisations to possess the internal capability to create VRIN which provide an openly distinct advantage through more agile resources. By doing so, he moves the focus from external threats to internal capabilities (Barney *et al.*, 2011) and effectively skewers the 'strengths-weaknesses-opportunities-threats' approach which concentrates on improving performance through neutralising threats. The resources he advocates acquiring resonate with those which are later described as dynamic although his view is they should remain internalised to the organisation and 'controlled'.

Tangible assets typically include real estate, plant & machinery, and stock while intangible assets might comprise goodwill or IP to which Barney adds human and management skills (Fareed *et al.*, 2016). History too, matters to organisations of whatever size; individual, identifying, and intangible brands abandoned through merging unequal organisations may damage the prospects for its success (Barney *et al.*, 2011). Tangible assets are valued by recognised common methods that do not transfer to intangible assets which necessitates a more subjective and perception led approach. While Barney promotes the notion that VRIN is achieved through organisations understanding their internal resources, he also offers a counterpoint; that even if an organisation does not

understand their own competitive advantage, it may remain sustained and inimitable if their competitors do not either. Barney has attracted criticism for not setting out the mechanisms to achieve VRIN (Wang and Ahmed, 2007) however, is that the role of the academic, or of the entrepreneur?

While some resources are incapable of replication by competitors, it is more likely to be possible for other products and services. Barney recognises that investment alone will not necessarily neutralise an advantage as an understanding of *what* elements need to be recreated or developed is required to avoid redundancy. This necessitates insight on what customers want or expect (Tzokas *et al.*, 2015); a skill of capable management. The response to Apple's *iPhone* by Motorola, Blackberry, and Nokia matched and even exceeded its technological capability however, the evolution of the iPhone had already been adopted by a new cohort of customers driven by brand loyalty and not necessarily by who produced the best product (Teece *et al.*, 1997).

This reinforces Barney's argument that organisations may employ similar strategies and equivalent resources however, the differentiating advantage may be how one set of management interact as a team (Salder *et al.*, 2020), not by individual 'stars'. By implication, this includes the quality of organisational governance, their strategic abilities (Junfeng and Wei-ping, 2017), and their commitment to change the processes required for new technology (Teece *et al.*, 1997; Kale and Başar, 2018). If these attributes cannot be sourced internally or acquired, organisations are required to be outward looking for alternative approaches such as those offered through networks which add value through providing the necessary understanding and knowledge.

Organisational Drivers: Review of theories

The driver theories consistently point to the organisational need to extend its lifecycle. Porter's approach (1980) does not necessarily deliver this objective as Teece (2007) argues in pointing out its limitations. Value creation through growth needs to be an actively sought. For Johanson and Valhne (1977) this means internationalisation. However, they recognise that this ambition is not without risk which all organisations of

Network Capital: How UK SMEs recognise its value in their international strategy?

whatever size would wish to mitigate. Much of that risk is presented by the barriers to internationalisation which absorb resources. The ability to achieve this, either internally or through networks, brings a valuable advantage to the organisation.

Barney's approach is to embrace the need to build resources whether tangible or not. The same objective is growth, gained through a differentiating advantage over any competitors. RBV has enjoyed much academic support and the inclusion of intangible human skills as a resource remains an important factor in the development of DC as a theory. However, Figueiredo and Piana (2018,21) add an appropriate caution to the RBV arguing that the need to find a strategy being driven by a resource dependency can be a 'curse' and limit management options or even become a liability.

Thus, governance and strategy are built on existing resources and those acquired externally to enable growth through internationalisation as illustrated in Figure 2.6. Networks are subject to the same tests of SCA argued by Barney; they are affected by the collective and individual experiences of their members with their value eliminated if competitors replicate their original advantage. Therefore, good governance is required to ensure a resilient strategy.

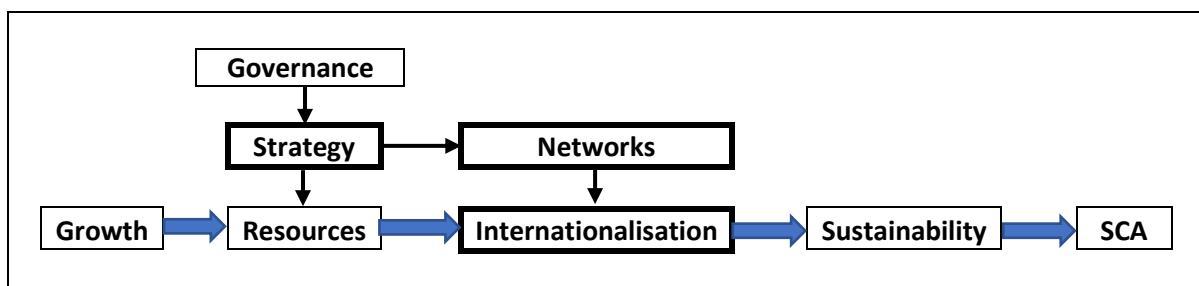


Figure 2.6: Organisational enterprise drivers (researcher's synthesis)

The following sections explore how the RBV was changed both in language and the focus on the intangible assets to deliver the same core drivers through a different approach.

2.2.3 Value creation

Dynamic Capabilities; a change of direction, a change of language

While previous approaches seem appropriate in more stable environments, they are not suited to dynamic “high-velocity” markets (Eisenhardt and Martin, 2000,1111). Although David Teece (2007) argues that Porter’s ‘five forces’ model³ was never satisfactory and ‘stranded’ academic thinking by concentrating on sectorial analysis and a limited number of elements; an approach which ignored the competitive environment. It is also recognised that the RBV approach of building up an increasing and unassailable bank of jealously guarded resources has less relevance in contemporary markets as acknowledged by Barney *et al.*, (2011) who while making observations on the future, present a somewhat unnecessary and defensive justification of the importance of RBV which remains the underlying root of DC; something claimed by Barney in his earlier ten-year retrospective (2001).

Teece *et al.* (1997) bring together the external power and control of the ‘Competitive Forces’ championed by Porter (1980) and the internal RBV approach of Barney (1991). However, whereas as Porter seeks to retain sectorial advantage, Teece *et al.* create a model which allows organisations to look internally and apply their organisational self-awareness to any sector where their capabilities add value and which resonates with the combination of them as the processes described by Johanson and Vahlne (1977).

An example of this can be found in Amazon, whose original target was *Barnes & Noble*, a market dominant bookseller in the USA. Amazon created a platform which expanded beyond books to compete with internet consumer marketers in multiple sectors (Brandt, 2011). This supports the argument by Rangus and Slavec (2017) that innovation, while critical to SCA is unrelated to market share and too much time spent on defensive strategies is no replacement for investment in the core competencies discussed by Teece

³ Porter considered there were five market forces on an organisation; the tension of bargaining power with suppliers or buyers, and the threats represented by new entrants, competitors, and substitute products or services.

et al. (1997). They argue that rather than investing or feeling forced to participate in a game of continual chess with rivals intent on outmanoeuvring each other for market share (Teece, 2007), they should concentrate on building a VRIN through assembling and understanding their capabilities which combine to create,

“a competence which is truly distinctive” (Learned *et al.*, 1969 quoted in Teece, 2007,513).

This ability enables organisations of any size to understand their strengths, the environment of their market, and the opportunities that arise therefrom. Reflected by Figueiredo and Piana’s (2018) resource dependency curse, Teece *et al.* (1997) argue the concentration and development of the RBV approach to strategizing distracted from the need to recognise these intuitive DC which they define as,

“the firm’s ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. Dynamic Capabilities thus reflect an organisation’s ability to achieve new and innovative forms of competitive advantage given path dependencies and market positions.” (Teece *et al.*, 1997,516)

This deliberate movement away from a ‘resource’ to a ‘core competence’ is derived through learning from internal processes as they adapt to a perpetually evolving market environment (Nieves and Haller, 2014; Vahlne and Johanson, 2017). However, while the strategy emanates from internal knowledge and the ability to find solutions to problems (Teece, 2014), the nature of the DC may be so elusive that an organisation may not be able to replicate the advantage at a later point (Teece, 2012). Furthermore, the pace of an unstable market allows less time to recover from any poor management decisions (Teece, 2007), another reflection on culture and strategy creation. A later definition of DCs helps in their distinction from NC as,

“bundles of tangible and intangible assets, including a firm’s management skills, its organisational processes and routines, and the information and knowledge it controls that can be used by firms to help choose and implement strategies.” (Barney *et al.*, 2011,1300).

Network Capital: How UK SMEs recognise its value in their international strategy?

This definition emphasises their value as individual management tools which may be of transient, temporary value and used in isolation or in combination to act in congruence with the environment in which an organisation operates (Nieves and Haller, 2014). These may be developed through internal ‘*Cognitive capabilities*’ (Helfat and Perera, 2015, 831), or outsourced (Irwin *et al.*, 2018) to a network.

Commentators approach DC with differing perspectives perhaps underlining the consensus around the concept while acknowledging the elusiveness of an agreement on an exact interpretation (Pinho and Prange, 2015; Gremme and Wohlegemuth, 2017; Limaj and Bernoider, 2019). This may be a result of the short, cyclical, and evolving nature of markets in which those capabilities are employed, and which assumes instability (Eisenhardt and Martin, 2000; Monferrer *et al.*, 2014). For some, the term is not about the resources but the ability and agility to reorganise them (Eisenhardt and Martin, 2000; Nieves and Haller, 2014; Svare and Gausdal, 2016) which is processed effortlessly and intuitively (Barney *et al.*, 2011). However, Teece *et al.* (1997, 511) see a requirement for deliberation in use, “*irreversible commitments*” from a choice of strategic assets based on experience, blended with new knowledge (Eisenhardt and Martin, 2000), and which is likely to require sunk money; a scarce resource for most SMEs. That these decisions take account of history is to acknowledge that the past remains a constraint on accepting risk and reflects organisational culture. Wang and Ahmed (2007) argue the academic world is divided by the differing definitions of DC offered by Teece *et al.* (1997), and Eisenhardt and Martin (2000).

Others highlight processes and ‘best practice’ when reliance on the RBV is no longer effective (Eisenhardt and Martin, 2000) which seems incongruous with the notion of dynamism and underplays the challenges in attaining this constantly elusive paradigm. Indeed, Teece (2007) argues that ‘technical fitness’ is insufficient for markets where economies of scale no longer have an impact. In a later paper, Teece (2014, 14) discusses a “*Capabilities Framework*” and the links to external partners, referring to the management of a process rather than a relationship (albeit both are necessary to be effective). Consequently, the advantage that an individual capability offers can be vulnerable soon after its deployment and no longer an effective resource (Teece *et al.*,

1997; Eisenhardt and Martin, 2000; Nieves and Haller, 2014; Monferrer *et al.*, 2014) or of no value due to mistiming of its use (Teece *et al.*, 1997; Teece, 2007). Tzokas *et al.* (2015) make the point that knowledge needs managing in this respect (Kale and Başar, 2018) to ensure that it is retained for future use when appropriate, and to take advantage of a ‘first-mover’ opportunity (Rangus and Slavec, 2017).

While the nature of the organisations who successfully employ these tools may demonstrate similar characteristics and underlying cultures, there is no essential prerequisite to seek long term relationships. Quite the opposite; their organisational agility is characterised by the ability to recognise the advantage through opportunistically using either new or dormant capabilities as their potential is realised, discarding them as soon they are no longer of value measured against a strict criteria of effectiveness, with a paradigm of capabilities being regarded as routine, and as close to inelastic as possible (Barney, 2001). This mindset resonates with Castells’ use (2000,188) of the word ‘commodities’.

Teece *et al.*’s (1997) definition of DCs also resonate with Castells’ (2000) description of networks which in effect, are interchangeable with Barney *et al.*’s (2011) use of the word “*firms*”; they are organisations. While Barney *et al.* describe the skills and vehicles suited to unstable environments, Castells refers to “*networking logic*”; the ability to adapt to constant change in complex situations and “*to structure the unstructured while preserving flexibility*” (Castells, 2000,70). Thus, ‘network’ is interchangeable with ‘organisation’, bringing order to the individual management tools of DC’s and adding value by using them to build strategy.

Networks; combining Social Capital, Knowledge Capital, and Absorptive Capability

Teece *et al.*’s (1997) theory is explored and expanded to examine the various DC elements which highlight their elements which can be simultaneously complementary and in conflict (Gremme and Wohlegemuth, 2017). However, while recognising individual aspects of the theory and their intangible value as tools to organisations, NC is distinct in its strategic objective. As markets have transitioned from stable to dynamic states, a

higher degree of horizon scanning and ability is required to constantly adapt and reorganise (Teece *et al.*, 1997; Eisenhardt, and Martin, 2000) which may not be achieved in isolation and is possible through a complementary, strong, and insightful network.

Three principal DCs are employed sequentially to drive the creation of networks. While the utility and function of the three DCs is common among commentators, they ascribe different terms; ‘capability’, reflecting the DC notion; ‘network’, which acknowledges the vehicle through which the capability works; and ‘capital’, referencing the intangible asset value of the capability. For ease of reading and the purpose of this review, the most common terms for each have been adopted. A network’s inception requires SC which is core to its successful formation (Pinho and Prange, 2015) and shared innovation (Iturrioz, Aragón and Narvaiza, 2015). A robust AC is the essential capability to build (Teece, 2007) and exploit the ultimate and valuable objective; KC. These are explored in more detail below and are discussed further in subsequent sections. ‘Capital’ and ‘Capability’ are used in the literature as umbrella terms which Cárdenas (2021) considers unhelpful as they disguise the complexity of the theory and practices, and hence their analysis.

Building on the Human Capital (“HC”) argument as an intangible asset, Fareed *et al.* (2016) argue that a DC and therefore, a VRIN, may be an individual rather than organisational (Cohen and Levinthal, 1990; Barney, 1991; Nieves and Haller, 2014; Schweißfurth and Raasch, 2018; Emeagwal and Ogbonmwan, 2018). The value of that individual increases if they work in multiple teams and bring knowledge with ties which are strong and frequently maintained (van de Brake *et al.*, 2020); an individual’s personal network. Therefore, HC is an important factor in SC, AC, and KC. As SC is necessary to initiate the other DC’s and to create NC, it understandable why commentators highlight the importance and value of SC in Human Resource Management (“HRM”) (Seet *et al.*, 2018; Dankyi *et al.*, 2020; Sanyal *et al.*, 2020). Methot *et al.* (2018) propose that HRM is moving from skills to considering potential for SC being applied in hiring processes which is consistent with Byun *et al.* (2018) who see greater risk in the recruitment of individual specialists, favouring a more generalist approach which seeks adaptability. This resonates with Salder *et al.*’s (2020) focus on teams not individuals. Parker *et al.* (2016)

argue that SC performance should form part of employee annual reviews. This approach might be considered inappropriate by the reviewee.

Teece *et al.* (1997) see more importance in the ability of DCs to protect an organisational exposure to an environmental shock and which constitutes a bigger threat than losing key people. This is echoed by Herbane (2019). Therefore, while acknowledging that HC is relevant to DC and NC, it is not considered necessary to explore this further for the purposes of the study which is concerned with organisational NC, specially that of SMEs, and not personal SC (albeit that is one and the same for organisations consisting of one person).

Social Capital

SC is the intangible goodwill (Tata and Prasad, 2015) required to build networks internally, externally, and to gain access to knowledge (Vahlne and Johanson, 2017) or to start a new enterprise (Davidsson *et al.*, 2017).

Social Capital is defined as

“Social capital is the goodwill available to individuals and groups. Its source lies in the structure and content of the actor’s social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor”. (Adler and Kwon, 2002,23)

SC relies on trust and reciprocity (Huggins and Thompson, 2015; Iturrioz *et al.*, 2015; Ruzzier *et al.*, 2017; Somlahlo *et al.*, 2016). SC is more likely to be individual in small SMEs ideally becoming organisational as they grow and expand into new markets or networks. However, on either basis, regular maintenance of those ties is necessary to ensure ongoing value and trust especially within networks (Adler and Kwon, 2002; Pinho and Prange, 2015; Neumeyer *et al.*, 2018; Pratono, 2018; Ripollés and Blesa, 2019; Salder *et al.*, 2020). Trust includes a tacit expectation that another party will not use information against the individual or organisation who passed it to them (Tata and Prasad, 2015), and of shared values (Cabanelas, Omil and Vázquez, 2013). Trust is highly valued when operating in an environment or society of low trust (Ivy *et al.*, 2018; Karhunen *et al.*, 2018),

and Manning (2018), commenting on the Bernie Madoff fraud, demonstrates how it can be abused for personal gain.

SC is enhanced through SNS which enable SMEs to provide information about themselves, interact with customers and relevant institutions, and either alone or through their networks, build AC to combine internal and external knowledge (Liu *et al.*, 2016; Scuotto *et al.*, 2017). It is perhaps, the relative ease and low cost of SNS that prompted Castells (2000,5) to observe “*technology is society*” in relation to building networks and their ability to achieve global reach.

SC attracts much commentary underlining its perceived importance to networking. Salder *et al.* (2020) argue that capability of a SME to effectively network with both depth and breadth (Hsieh *et al.*, 2018) is more important to their performance than holding resources. This is reflected in the finding by Chakkol *et al.* (2018) that while resources including HC can be acquired through organisational mergers and acquisitions SC cannot, reflecting Barney *et al.*’s (2011) argument with reference to branding.

Finance is a prized resource for SMEs with Ojong and Simba (2019) concluding that micro-financing and nurturing SC are linked. However, Nguyen (2020) qualifies this as being applicable to informal funding sources only, not formal, something which becomes of relevance when considering network types and members. Hernández-Carrión *et al.* (2019) find that SC works in different ways for different sectors; that in professional circles a high degree of reciprocity is expected while in other arenas, exploitation is accepted. Therefore, the potential of SC is nuanced by the culture of the sector in addition to the markets where it is employed. An ability to effectively employ SC in a domestic market does not necessarily transfer to foreign territories.

The nature of SC could be conflated with, rather than a route to, KC. They are closely aligned as an organisation’s ability to leverage off SC assists entrepreneurial eco-systems (Spigel and Harrison, 2017).

Knowledge Capital

To distinguish from SC, KC is defined as

“the set of scientific and technical information and knowledge produced, combined, and systemised by one or more companies within a particular productive objective, and more broadly, within a process of value creation”. (Laperche, 2017,33)

KC is core to enabling innovation which Monferrer *et al.* (2014) argue is a strategic necessity, not an option. It forms a vital part of Castells' (2000,78) 'virtuous cycle' to improve productivity and management knowledge. It is likely to be the most prized asset and therefore an immediate focus of acquisition. External knowledge is required to innovate and improve performance which, as Tzokas *et al.* (2015,134) point out is "*Easy to say, hard to put into practice*" and hence the imperative to build AC. A counter view is offered by Danko and Crhová (2024) who find internal performance is improved when innovation is jointly developed between managers and employees, a point which reflects organisational culture.

KC must be built on experience (Vahlne and Johanson, 2017; Tzokas *et al.*, 2015) and innovative, not simply duplication (Huggins and Thompson, 2015). That experience might be the catalyst for inventive and Creative Disruption (Scuotto *et al.*, 2017). Reflecting its potential for high value, knowledge requires careful management and governance to ensure that its integrity is maintained. However, while prized, knowledge is worthless without the AC to convert it to commercial value (Teece, 2007; Monferrer, Blesa and Ripollés, 2014; Tzokas *et al.*, 2015; Schweisfurth and Raasch, 2018).

Absorptive Capability

While AC might be considered as another form of KC, it carries its own identity. Knowledge is not necessarily of value to an enterprise whereas,

“Entrepreneurial absorptive capacity is defined as the ability of an entrepreneur to understand new knowledge, recognise its value, and subsequently commercialise it by creating a firm.” (Acs et al., 2013,768)

This definition is adopted for the study and incorporates the complementary DCs of “*Adaptive Capability*” defined as,

“... a firm’s ability to identify and capitalize on emerging market opportunities.” (Wang and Ahmed, 2007,37)

and “*Innovative Capability*” which is defined as,

“... a firm’s ability to develop new products and/or markets, through aligning strategic innovative orientation with innovative behaviours and processes.” (Wang and Ahmed, 2007,38)

García-Villaverde et al., (2018) find that SC only indirectly acquires KC which is more often sourced from outside clusters or networks who can provide the capacity and capability. To support this, Huggins and Johnston (2010) argue that both SC and KC are enhanced in larger organisations and that over dependence on SC may prove to be an impediment to KC as it requires the essential and complementary role of AC.

While understanding the role of AC in adding value, this capability is limited without the essential “*miscibility*” found within a network and defined by Huggins and Thompson (2015) as;

“the capability for this knowledge to mixed/combined (sic) with different types of knowledge from different sources”. (Huggins and Thompson, 2015,111)

While Kale and Başar (2018) argue that agility is the essential quality, Ali et al. (2016) propose that assimilation and exploitation are key to innovation, the propensity to which is exponentially increased through technical capability, and strong customer relations (Tzokas et al., 2015). However, for AC to overcome external barriers, it may first be necessary to address existing internal constraints which result from experience (Schweisfurth and Raasch, 2018) and which limit exploitation of external technology, especially in an emerging market which reflects Barney’s (1991) concern (Cuervo-Cazurra and Rui, 2017; Junfeng and Wei-ping, 2017).

Therefore, the initial access to knowledge relies on trust (Vahlne and Johanson, 2013), effective collaboration on SC (Somlahlo *et al.* 2016; Agyapong *et al.*, 2017), and conversion of KC, to a market led value through AC (Monferrer *et al.*, 2014; Limaj and Bernoider, 2019) with networks providing the integration (Jordão and Novas, 2017).

Figure 2.7 illustrates how an individual SME can leverage off its internal DCs to create value and growth and in doing so should exercise good governance, a requirement mirrored by the network. The potential released by networks is the capability to extend and expand the DCs beyond internal boundaries to create joint strategies, value, and FSAs which cannot be achieved alone. At this stage, the relationship is shown in a single dimension without links between the SME to other networks or inter-network relationships.

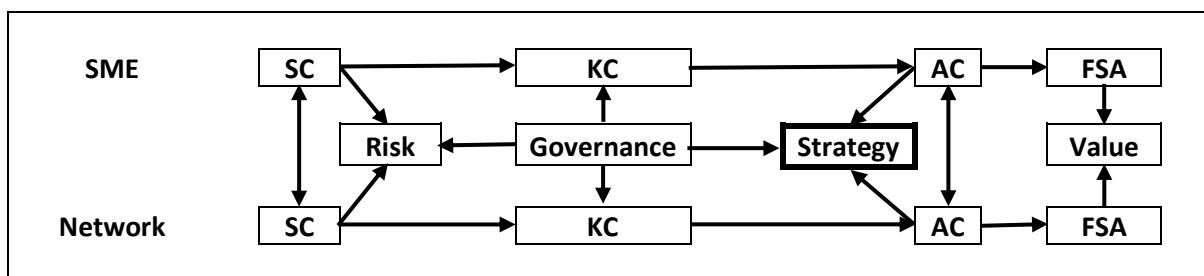


Figure 2.7: Network dynamics (researcher's synthesis)

This draws the parallel paths between the SME and its networks to the same objective. Each share the common thread identified earlier in this chapter. Therefore, they can be considered as a single or different organisations depending on how closely they are aligned.

Value creation: Network Capital

While DCs are developed through an internalised process and understanding, NC is outward looking (Alinaghian and Razmdoost, 2018). Networks provide an umbrella to both the core DCs described above, and others employed either in conjunction or occasionally as required and when of value. Therefore, NC is considered by the researcher to comprise 'Cumulative Capability Capacity'; a recognition that a network is not just about "Resource Orchestration" (Sirmon *et al.*, 2011,1390), it is about meshing

them into a single and resourceful capability which is of greater and longer lasting value than the sum of its constituent DCs as individual components (Vahlne and Johanson, 2017). NC breaks through the organisational “vertical, lateral and horizontal” boundaries (Teece *et al.*, 1997:522; Castells, 2000; Huggins and Thompson, 2015; Iturrioz *et al.*, 2015) and as such, holds the qualities required to create SCA through a VRIN. This paradigm can be envisaged as a ‘mesh’ which captures key capabilities to enable sustained growth through strategy and internationalisation (see Figure 2.6: Enterprise drivers).

The language employed by Huggins and Thompson to define NC (2015) in Chapter 1 (Introduction) draws out the essence of NC; that it is defined by organisational relationships which are strategic, long term, reciprocal, deliberate, reliant on experience, and frequent interaction. The key difference to SC is that NC reaches beyond trust with the specific intent behind the formation of networks to gain knowledge, innovate, and access an exponentially greater pool of valuable resources (Huggins and Thompson, 2015; Hånell *et al.*, 2018).

While SC remains key to SMEs entering a network, as they grow the relationship with other members becomes less dependent on it, and SC becomes a more calculative ‘tool’ (Huggins and Johnston, 2010). SNS enables a quick path for SC to achieve a wide reach however, weak ties are inherent with its nature (Castells, 2000), and inconsistent with the definition of NC. Therefore, it may be concluded that while SC is explicitly individual or organisational, NC is about effective reach and value creation. Both SC and NC differ from BRs which are arrangements, often short term, to achieve objectives which are not necessarily strategic or dynamic (Narayanan, 2015). NC builds on, and differs from, Castells’ (2000) definition of networks in section 2.1 by introducing the concept of investment as a series of value adding relationships rather than being informational and technology led.

Organisations with high levels of DCs are more likely to draw upon them and to invest in networks to create a new and distinct capability (Svare and Gausdal, 2016; 2017). However, while individual networks have that ability at their best, NC remains distinct

from DCs despite sharing many intrinsic qualities and traits. Like DCs, networks undergo the same four life cycles of business of; emergence; growth; maturity; and death (Huggins and Thompson, 2015; Somlahlo *et al.*, 2016) either deliberately or through neglect and lack of sustainability. Networks' strengths lie in their transformational ability to survey the market to "*sense and seize*" and transform, something which like SC, ideally should be organisational and not left to individuals (Teece, 2007, 2012, 2014,16).

This ability allows one organisation in a network to spot an opportunity which another participant may have, but does not recognise (Acs *et al.*, 2013). Therefore, it is key to operational effectiveness that the strategic processes are routine, as envisaged by Barney in 2001 (Eisenhardt and Martin, 2000; Teece, 2014). It is the agility of adaption to a changing environment that can create a VRIN for one network and not necessarily so for others (Teece, 2014), something which Vahlne and Johanson, (2013,197) term as "*evolutionary fitness*".

That fitness requires networks to constantly realign (Teece, 2012; Svare and Gausdal, 2016) their combined elements of; SC (Teece, 2007; Canabanelas *et al.*, 2013; Svare and Gausdal, 2016); 'exploratory capabilities' (Monferrer *et al.*, 2014); innovation (Menguc and Auh, 2006; Huggins and Johnston, 2010); enterprise (Teece, 2007); and knowledge. Nieves and Haller (2014) make an interesting distinction between 'sensing' and 'learning' which reinforces the notion that reliance on knowledge without an entrepreneurial mindset is not enough as understanding is also required, the element of AC (Huggins and Johnston, 2010; Monferrer *et al.*, 2014). The level of a network's performance and any advantage it gains depends on its competence of managing the SC and KC within it (Nuryakin *et al.*, 2018), as illustrated in Figure 2.5.

It is that 'connectedness' of the network which provides the potential for NC to include a VRIN, enabling entry into new markets which Gaganis *et al.* (2019) observe, is difficult to achieve. That possibility is explored by Alinaghian and Razmdoost (2018) who find that networks extend DCs beyond organisational boundaries to form three value dimensions which they class; intrinsic versus extrinsic; active versus latent; and unilateral versus multilateral; the first of each pair being internal to the organisation with its counterpart

being released through network participation. Between these, resources are created which have; rarity; utility; appropriability; accessibility; complementarity; versatility; scalability; and usability; properties all inherent in a VRIN. When this is achieved, the value of NC becomes exponential. That VRIN may derive from a known need or as a solution to finding a market for an existing technology as in the case of the 3M 'Post-it' note (Schweisfurth and Raasch, 2018).

It is, perhaps, that idea of intrinsic and extrinsic value which brings together the kernel of NC. An example may be a wood working company who make and sell hand turned wood egg cups. Sales are steady but low volume. Those benefits are intrinsic, active, and unilateral. An egg producer has similar attributes. The two organisations combine to offer egg cup and egg packages for sale; they retain their intrinsic benefits while gaining from those that additionally arise from their link which are extrinsic and multilateral. They team up with a producer of gift boxes and the extrinsic benefits grow. The network extends to include an artist who hand paints eggs for special occasions generating further extrinsic value. Through discussions on how to build on this success, it is suggested that the wood worker makes egg holder trays which can then be decorated, thus releasing latent benefits through innovation. The situation could be represented differently; the egg producer could see the opportunity to use the woodworker as supplier only to sell the egg cups alongside their produce. This becomes a BR; two companies both extracting intrinsic values.

Even if the network extrinsic approach is adopted, this does not represent a VRIN as the model is easily replicated. However, if the network's capabilities include the ability to sell a range of related and specialised products over the internet with guaranteed delivery within 24/48 hours internationally, that may become a VRIN and the value of its NC grows exponentially. The NC can only be achieved through the network. However, this scenario is not necessarily achieved through the strategic deliberation envisaged by Huggins and Thompson (2015).

To illustrate this, Figure 2.8 below, builds on Figure 2.7 to build the mesh illustrating how existing organisational values created internally can feed into and beyond its network to

release further value. Furthermore, it links into the formality of relationship (Oparaocha, 2015). It will be noted, just as the language of RBV changes from resources to the capabilities, control to orchestration, competencies of DCs, so the ‘processes’ of DCs evolve to the ‘relationships’ of NC. In conjunction with Figure 2.7, the complexity of the wider network relationships becomes apparent. The Value to the SME is greater market opportunity, international potential, and a vehicle through which to form and execute strategy.

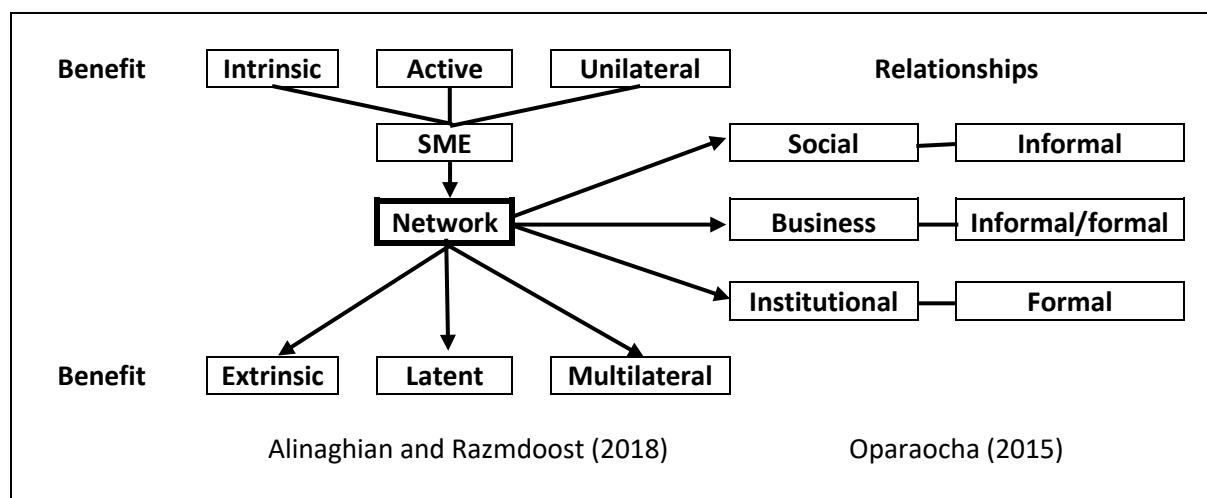


Figure 2.8: Network benefits (researcher’s synthesis from Alinaghian and Razmdoost, 2018, and Oparaocha, 2015).

Network Capital – summary

The value creation theories build on those which are organisationally driver based. The emphasis shifts from the release of intrinsic value through internal resources or capabilities, to creating extrinsic value either within or without the same sector. This resonates with the FSA proposed by Almodóvar, and Rugman (2015).

Through a series of deliberate relationship building, networks convert the valuable tools (or commodities) of SC, KC, and AC to NC, into advantage, growth, and a long term strategic asset; Capital. That goal can only be achieved and sustained by continual maintenance and strong governance. The concept combines several complex and evolved theories to create a separate identity. Thus, NC is not a DC however, it has an inherent capacity to become one.

Figure 2.9 below illustrates how Huggins and Johnston combine the organisational drivers, their search for growth, and the theoretical approach to achieving their objectives.

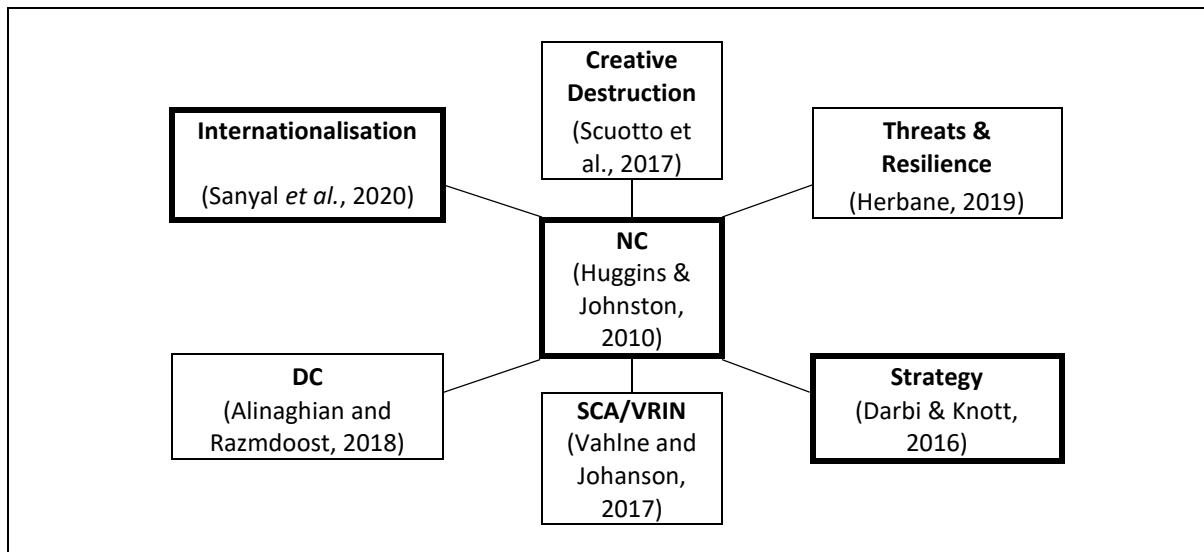


Figure 2.9: Conceptual links (Researcher's synthesis)

Growth can be achieved through creative destruction as exemplified by companies such as Apple and Amazon through their respective innovations. Networks offer the same potential (Castells, 2000). Networks are formed by three principal DC's which are absorbed as characteristics, and which enable a strategy to overcome the barriers presented by internationalisation while providing mutual support and resilience to economic shocks. Through this capacity, NC offers the potential to create a VRIN and thus, a SCA not available to its members as individual organisations.

This opportunity is available to SMEs however, only if they recognise and understand NC, the extent to which is unknown and addressed by this study.

2.3 The research gap

The final section of the review considers the research gap and identifies the elements that gave rise to the question the study seeks to address.

2.3.1 Literature table and emerging Themes

From the wider literature, themes emerged from the review which are set out in table 2.5.

Table 2.5: Emerging themes

Network State	Theme	Elements	References
<i>Participation</i>	Type	Objectives Formal Informal Membership	Roy, 2012 Lawton Smith <i>et al.</i> , 2012 Jordão and Novas, 2017 Vahlne and Johanson, 2017 Zeafarian <i>et al.</i> , 2016 Anjos and Reagans, 2020
<i>Culture</i>	Influences	Leadership Gender Immigration Ethnicity Secularity Open/closed Private/public Education CSR Size	Sidhu <i>et al.</i> , 2015 Tata and Prasad, 2015 Schott and Cheraghi, 2015 Siddiqui <i>et al.</i> , 2016 Ashourizadeh and Schott, 2016 Hallam <i>et al.</i> , 2018 Neumeyer <i>et al.</i> , 2018 Gu, Luo, and Liu, 2019 Harjoto and Wang, 2020 Bisignano and El-anis, 2019 Hsueh and Gomaz, 2019 McAdam <i>et al.</i> , 2019
	Entrepreneurship	Risk averseness Fraud	
<i>Growth</i>	Innovation	SC AC KC Lifecycle Academics	Chetty and Blankenburg Holm, 2000 Huggins and Johnston, 2010 Harrison <i>et al.</i> , 2010 Vahlne and Johanson, 2013 Cabanelas <i>et al.</i> 2013 Monferrer <i>et al.</i> , 2014
	Strategy	Formal Intuitive	Oparaocha, 2015 Huggins and Thompson, 2015 Iturrioz <i>et al.</i> , 2015
	Internationalisation	Resources MNEs Border Agents Government	Pinho and Prange, 2015 Svare and Gausdal, 2016 Lee <i>et al.</i> , 2016 Costa <i>et al.</i> , 2016 Abrahamsen <i>et al.</i> , 2016 Svare, and Gausdal, 2017 Nysrtöm <i>et al.</i> , 2017 Junfeng and Wei-ping, 2017 Alinaghian and Razmdoost, 2018 Hånell <i>et al.</i> , 2018 Ripollés and Blesa, 2019 Urzeil and Puig, 2019 Kirwan <i>et al.</i> , 2019
<i>Sustainability</i>	Performance	Governance Resilience Risks	Caivancanti, and Giannitsarou, 2017 Ding <i>et al.</i> , 2019 Herbane, 2019

2.3.2 Areas for further research

The literature also identifies further areas for research,

- Huggins and Johnston (2010) highlight the need to understand how individuals and organisations move beyond a dependency on SC to network through a deliberate and value seeking strategy, especially in SMEs. They also call for a study on networks and their performance across regions and sectors which is partially addressed by the research undertaken by Huggins and Thompson (2015) which concentrates on KC,
- Barney *et al.* (2011) discuss the nature of entrepreneurs, their intuition and agility to move from one market to another, and call for more research on the psychology behind their skills,
- Lawton Smith *et al.* (2012) identify the need to understand how formal networking performs regionally.
- The case studies by Oparaocha, 2015 are inevitably limited by industry sector and region. While the study provides insight on how those organisations relate with governmental institutions and access their services, it recognises that the perspective of 'non-users' of government agencies is of equal importance to inform policy makers,
- Nysrtöm *et al.* (2017) draw out the need to understand the deliberation behind organisational networking at micro and macro levels in creating strategy,
- Agostini and Nosella, (2017) identify four strands for further study relating to SMEs; how they approach alliances; how they use SC; how they innovate; and how they internationalise,
- Bisignano and El-anis (2019) identify the need to understand how migrants can be included within community networks to build wider opportunities,
- Eng *et al.* (2020) call for research into trust in the context of creating social value from an international entrepreneurial perspective, including gender and cultural influences.

Network Capital: How UK SMEs recognise its value in their international strategy?

It is evident that academia has learnt much from SMEs. However, the extent to which SMEs consciously understand, benefit, and value from this knowledge is not apparent. Table 2.6 below sets out gaps in research identified through the review with the themes of strategy; network deliberation; internationalisation; and cultural barriers. These themes are relevant to the question under study.

Table 2.6: Research gaps identified and proposed for study

Gap	Reference
Propensity to strategy	Nysrtöm <i>et al.</i> , 2017: Herbane, 2019
Connectedness to government	Lawton Smith <i>et al.</i> , 2012: Oparaocha, 2015
Deliberation of network relationships	Huggins and Johnston, 2010
Propensity to network and internationalisation	Agostini and Nosella, 2017
Barriers to enterprise through culture, gender, or ethnicity	Bisignano and El-anis, 2019: Eng <i>et al.</i> 2020

2.3.3 Networks: in the UK and SMEs

The final element is the geographical area of study. As this study is conducted in the UK, the relevant studies are further critiqued for potential input into the methodological phase of the study as summarised below.

'Knowledge flow and inter-firm networks: The influence of network resources, spatial proximity and firm size'

Huggins and Johnston (2010) undertook a quantitative study of firms of all sizes in three regions of Northern England in 'knowledge-intensive' sectors. They sought to explore the influence of proximity and size of firm and reliance on SC to acquire KC. They find that SMEs are more likely to rely on SC than formal alliances. The study is limited by geography, and its focus on SC rather than exploring the deliberation of objective discussed in their paper, and adopted for the definition of SC. The study concludes that SC is likely to be more important to SMEs as a resource than for larger firms. Therefore,

Network Capital: How UK SMEs recognise its value in their international strategy?

while acknowledging the strategic capability of NC, the paper does not seek to advance the understanding of *how* firms leverage off their networks beyond the level of contact.

'Business and professional networks: scope and outcomes in Oxfordshire, Environment and Planning'

The UK regional study by Lawton Smith *et al.* (2012) identifies a demand for more formal networks, and the need for local involvement of local authorities and, perhaps unsurprisingly given the study includes both Oxford and Cambridge, academic institutions. The study considers the quantity of networks that exist in the geographical area, and what participants seek from the networks. The paper references Huggins and Johnston (2010) and makes the point that areas with high network activity tend to perform better economically. The study only considers formal business networks which are compared with local influences and finds an ambivalence over the role of local government, suggesting a disconnection. The study inevitably includes a proportion of SMEs however they are not distinguished from other organisational types.

The study identifies differing individual objectives by participants while retaining a common goal of meeting short term business needs. The value of networks as a strategic longer-term resource is not considered.

'Social capital is not for sale: a supply network perspective on mergers and acquisitions'

Chakkol *et al* (2018) consider SC through case studies and specifically, chain supply management. Their observations reinforce the intangibility of SC which they find cannot simply be acquired through acquisition or merger. Furthermore, the SC of a firm may be adversely affected if the cultures of the parties merging are mis-aligned or in the case of acquisition, that of the dominant party places a constraint on the other. Therefore, the focus of the study is narrow and does not address NC.

‘Rethinking organisational resilience and strategic renewal in SMEs,’

Herbane (2019) expresses the importance of networks to SMEs in respect of resilience. He reflects on their wider societal importance while identifying an ambivalent attitude to strategic planning. The study is analysed from quantitative data from questionnaires sent to UK firms however the paper is silent on how the target SMEs were selected. The paper differentiates between the level of governance (reflecting internal culture) however, makes no geographical observations. This paper does explore how SMEs leverage off NC however, the study is limited to one aspect of resource.

‘Making sense of mixed-embeddedness in migrant informal enterprising. The role of community and capital’

Bisignano and El-Anis (2019) study a particular group (entrepreneurial asylum seekers) in one city to explore ‘*mixed-embeddedness*’. The study is conducted through qualitative methods. While the findings highlight some areas which are common to the establishment of SMEs, its focus is narrow.

‘Stories from the field: women’s networking as gender capital in entrepreneurial ecosystems’

McAdam *et al.* (2019) study a network ecosystem of women entrepreneurs in Northern Ireland. The study considers formal networks through qualitative methodology exploring guided themes. Therefore, networks are explored from the perspective of a specific group in the context of external influences.

‘Board of directors network centrality and environmental, social and governance (ESG) performance’

Harjoto and Wang (2020) undertake social analysis at Board level in the UK. The study concerns firms listed on the London Stock Exchange. Quantitative methodology is

adopted with scores attributed to variables including ESG as a dependent factor. The study is not relevant to SMEs and is narrow in scope and subject.

'International social entrepreneurship and social value creation in cause-related marketing through personal relationships and accountability'

Eng *et al.* (2020) adopt a case study of three UK charities at a personal level to assess the creation of social value. The study identifies ability to align as core to value creation (in the specific context), and the importance of trust. The study explores aspects of NC which inform this review however, the focus of the study is limited by scope and sector.

2.4 Literature Review summary

This section summarises the reviewed literature.

The first section explores the nature and practice of networks – the ‘what’ of this study, their place in the global economy, their practice in the context of business; their membership and relationships. Networks form to create value whether it be societal, economic, or both. SMEs participate and derive value from their networks as resources of value to them however, this is not without risk. That requires organisational and network governance including the development of strategy for which there is mixed evidence.

Organisational drivers are considered including growth through internationalisation. The appetite for this, like governance, is influenced by an organisation’s culture which is shaped by the SME’s leadership and often, individual strengths and weaknesses. Operating in a wider economy, organisations are also influenced by the societal values of the territory in which they are domiciled, or those they wish to enter.

The middle section builds the review by considering the theoretical background to NC. This develops the evolution of business theory, how it relates to organisational drivers

Network Capital: How UK SMEs recognise its value in their international strategy?

and the markets in which they reside. NC brings together several strands of theory including the lasting appeal of Barney's SCA and VRIN (2001) which combines with the extrinsic value discussed by Alinaghian and Razmdoost (2018).

Throughout this part, the researcher includes figures that reflect the development of understanding, and which are drawn together in Figure 2.10 to combine organisational drivers with internal and external influences. The key components form the core of the mesh (thick black border) to the point that Networks, Internationalisation, and Strategy ideally become one and interchangeable.

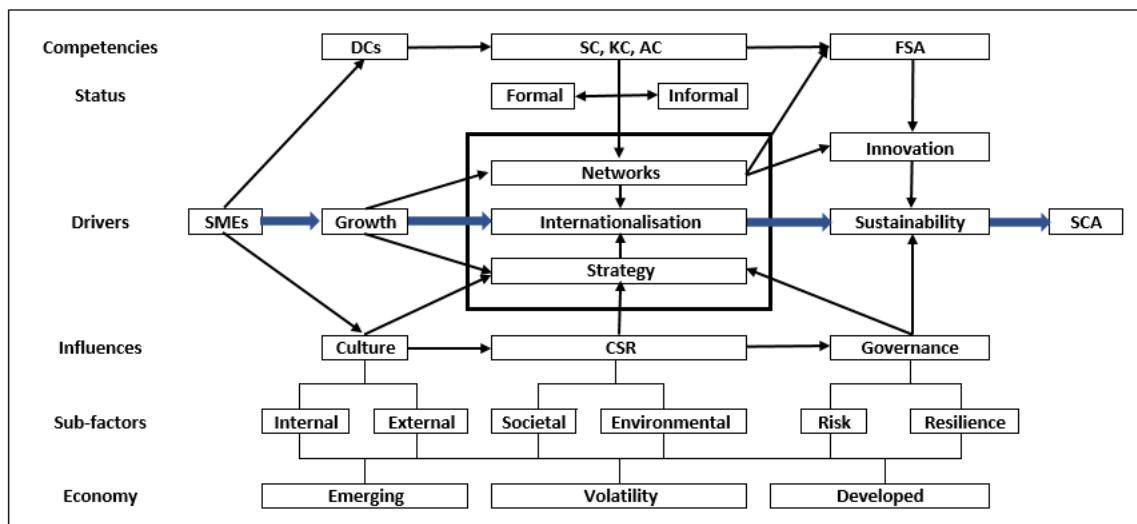


Figure 2.10: SME drivers and influences (researcher's synthesis)

The linear two-dimensional illustrations belie the nature of the mesh which may be characterised as an organic and fluid relational model which contracts, grows, and changes shape as it anticipates and reacts to its external environment. Figure 2.11 builds on that framework to include the thematic links discussed and illustrated. This demonstrates the complexity of interlinked relational considerations when attempting internationalisation.

Network Capital: How UK SMEs recognise its value in their international strategy?

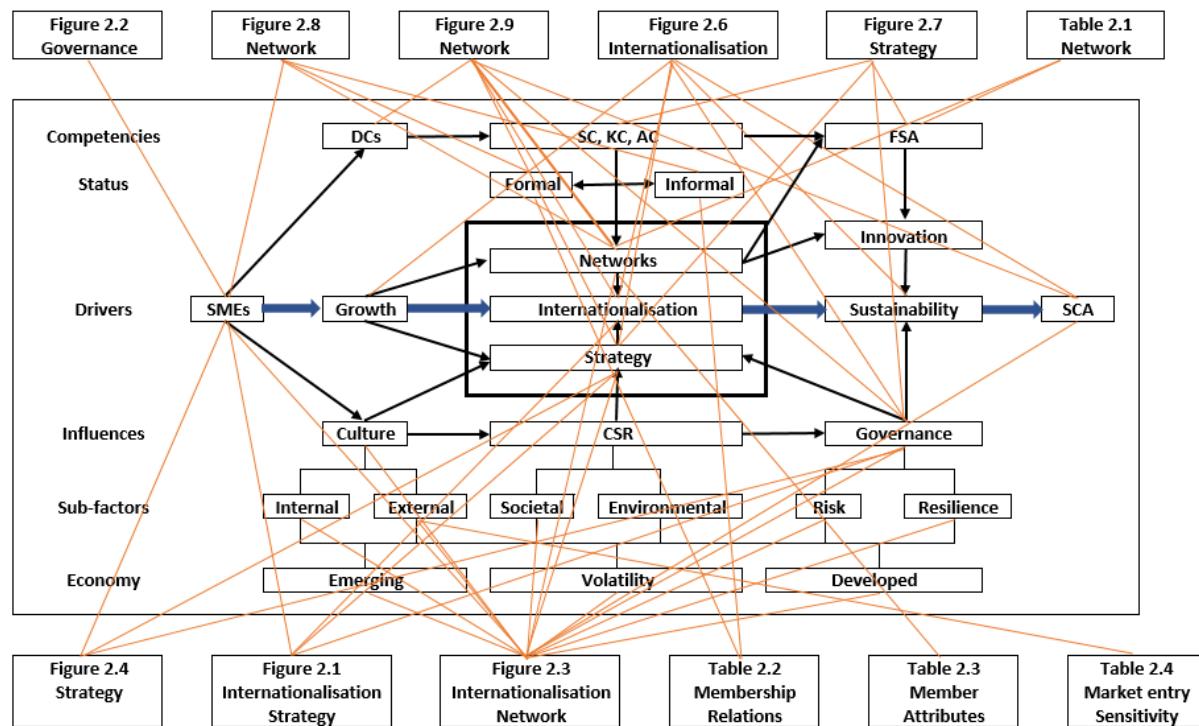


Figure 2.11: Thematic links (researcher's synthesis)

The final section explicitly relates to the existing literature, emerging themes, and areas suggested for further research by various academics. Proposed themes relevant to the question are set out and a further sift is imposed on the 'who' and 'where' of the research; SMEs and the UK.

This still leaves the 'how' question of the study and the deliberative nature of NC is at the heart of the question: A cricketer may bowl a ball with the deliberate intention of making it hit the pitch at a certain spot, swing, turn, and arrive at its intended goal with precision. It is a natural talent of the player combined with a skill often developed through a rudimentary understanding of physics, extensive practice, and experience. That cricketer is unlikely to sit down and work through the precise mathematical calculations required to formalise the exact direction, speed, grip, and angle of release to achieve the same result. The bowler knows it works without fully understanding why.

Similarly, SMEs may be more likely, given their competing priorities, to act intuitively and prefer to prioritise their historical experience over theoretical deliberations. The literature

Network Capital: How UK SMEs recognise its value in their international strategy?

proposes that this places SMEs at existential risk in the long term if they fail to create robust strategies and exploit opportunities beyond their domestic markets.

This returns to the 'why' of the question.

The contribution and resilience of SMEs has been discussed in a national context, one which faces developing challenges on several fronts. The need to convert FSA to CSA is acute. This requires universal acceptance of the value of NC and embrace a willingness to engage with each other to the point of mutual trust (Narayanan, 2015), shared language (Huggins and Thompson, 2015) and, where possible, aligned cultures (Ripollés and Blesa, 2019).

While both government and academia commit resources into supporting SMEs, the value of that input may not be realised and therefore, the opportunity for a long term aligned network foregone; the answer to how frameworks and policies around networks can be of practical effectiveness depends on understanding their significance to SMEs and their growth (Oparaocha, 2015). As the review demonstrates, at the core of growth is internationalisation which requires strategy and NC.

The lifecycle of organisations and progression of value is lengthened by extending their growth phase (Angwin *et al.*, 2011). Growth is achieved through internationalisation (Johanson and Valhne, 1977). Networks are essential to SME strategy and accessing new markets (Castells, 2000). Networks are existentially critical to SMEs (Sanyal *et al.*, 2020). Networks can provide a source of VRIN (Alinghian and Ramzmdoost, 2018). Networks are a source of strategic resilience for SMEs (Herbane, 2019). Networks are strategic (Darbi and Knott, 2016). Networks are a source of SME innovation (Huggins and Johnston, 2010). SMEs are major contributors to economic growth (Huggins and Thompson, 2015), innovation (Teece, 2007), National Capital (Sidhu *et al.*, 2015) and society (Iturrioz *et al.*, 2015). The interests of SMEs, government, and academia are inextricably linked (Sidhu *et al.*, 2015). SME require government policies and support to overcome barriers to growth (Oparaocha, 2015).

Network Capital: How UK SMEs recognise its value in their international strategy?

Therefore, before the longer term and wider benefits of NC can be garnered, the answers are required to the question at the heart of this research; the extent to which SMEs understand and value NC in their international strategy?

Table 2.7 illustrates how this research addresses the gaps identified by others. The gaps are

- Who
 - SMES
 - Sector
- What
 - Networks
- Where
 - UK by region
- Why
 - The macro impact needs to be assessed
- How
 - Membership is valued
 - Benefits are valued

Table 2.7: Research gap analysis

Element	Study	Huggins and Johnston 2010	Lawton Smith <i>et al.</i> 2012	Oparaocha 2015	Nysrtöm <i>et al.</i> 2017	Agostini and Nosella 2017	Bisignano and El-anis 2019	Eng <i>et al.</i> 2020
Who	SME	Yes				Yes		
	Sector	Yes						
What	Network	Yes	Yes		Yes	Yes		
Where	UK	Yes	Yes					
When	Post-Brexit							
Why	Economy							
How	Value							
	Membership					Yes		
	Benefits							
	Strategy	Yes			Yes			
Internationalisation				Yes		Yes		
Government					Yes			
Barriers							Yes	
Academia								Yes

Network Capital: How UK SMEs recognise its value in their international strategy?

The elements progress the concept which will be developed in the next chapter and illustrated in Figure 2.12. This brings together the principal themes drawn from the Literature Review.

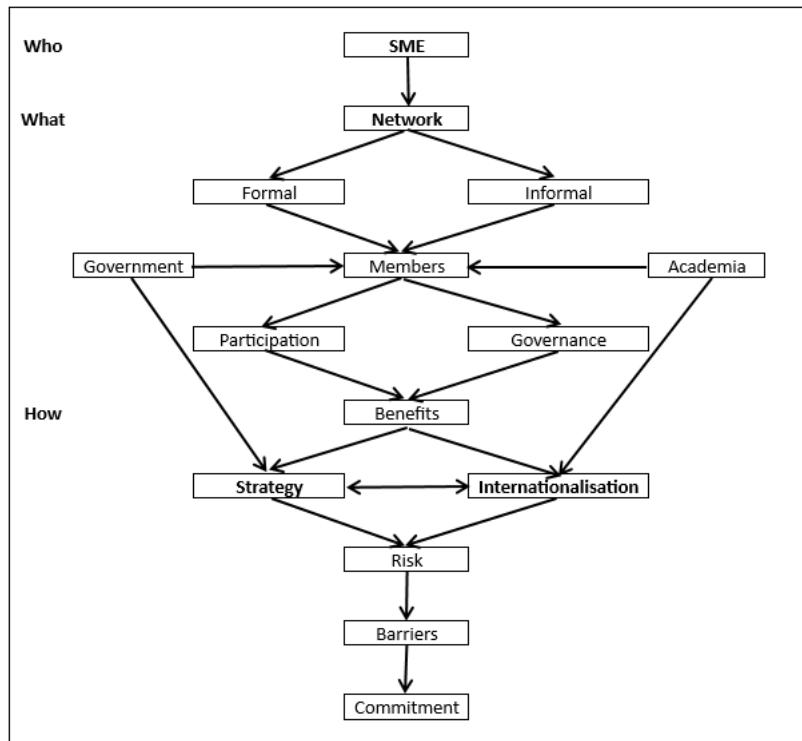


Figure 2.12: Question concepts

The next chapter considers how this question might be answered and the process to achieve the objective of the study. This includes the philosophical and methodological approaches, design, data collection methods, with justifications for each choice. The chapter then moves to ethical considerations and a rationale for data analysis.

Chapter 3 Research methodology and design

3.0 Introduction

This chapter considers the researcher's approach to the research, design, and fieldwork.

3.01 Contents

It is organised in sections which describe,

- the methodological approach,
- the research design,
- the data collection methods,
- ethical considerations arising from the nature of data collection,
- the methods and rationale of analysis,
- review and conclusion.

3.1 Methodological approach

This section sets out the researcher's philosophical approach to the study and justification for the methods selected.

The problem

The researcher seeks to produce a study which meets three objectives,

- add to the body of academic work around NC,
- identify the effective and practical use of NC by SMEs,
- provide evidence to inform policy advisors and makers.

Network Capital: How UK SMEs recognise its value in their international strategy?

The researcher faces a lack of relevant existing hard data. Therefore, this research relies on individual experience, perceptions, and inevitable subjectivity. The challenge is to adopt a methodology which maximises objectivity, validity, and produces reliable evidence. The problem is achieving credibility when faced with imperfect knowledge, the inherent human traits of the researcher, and those of the participants.

The review of existing literature highlights a tendency among SMEs to interpret strategy inconsistently with the definition offered by Rumelt (2011) in Chapter 2 (Networks and Strategy). This is likely to apply to the other key words; network, and internationalisation. Therefore, there is a need to minimise ambiguity.

Perceptions present a further challenge. Opinions expressed by study participants are subject to interpretation by the researcher, placing importance on the emergence of distinct and identifiable trends. While this mitigates distracting and outlying views, of equal concern is not to dismiss any unique and valuable insights.

To derive value from the research requires a collaborative approach tempered by the need to avoid crossing the ethical boundary; as Colin Robson (2011,281) warns, “*you are a guest*”. It is anticipated that SMEs use their networks in strategy and internationalisation. The question – *how* – seeks to establish the degree to which it is intentional and not intuitive (Mintzberg and Waters, 1985: Salder *et al.*, 2020). This is only achieved by participants giving freely of their time, and being comfortable with providing an honest reflection on their behaviours.

The information and data provided requires interpretation and analysis which withstand critical peer review. There is a risk to the objectivity of this process which emanates from the researcher’s experience as a professionally qualified entrepreneur working with international SMEs.

The test

Before the research is structured, a decision is required on the type of test being applied; whether it is an exploration of a *concept*; development of a *theory*; or testing of a *theory* through *hypothesis*. The Oxford English Dictionary (“OED”) offers definitions which can be summarised as,

- concept; “*Something conceived in the mind*”,
- theory; “*The conceptual basis of a subject or area of study. Contrasted with practice*”,
- hypothesis; “*A proposition or principle put forth or stated merely as a basis for reasoning or argument, or as a premiss from which to draw a conclusion*”.



Figure 3.1: The theory process (Author's synthesis)

As the nature and practice of NC is evidenced, it is elevated it beyond a concept to a theory. By the nature of the question, it is the intention of research to explore both the theory and practice.

Research structure

The objective is to conduct research which achieves the systematic, sceptical, and ethical approach advocated by Robson (2011). To enable a comprehensive design, a structure is adopted to shape a logical process in the design and capture all the relevant considerations, illustrated in Figure 3.2.

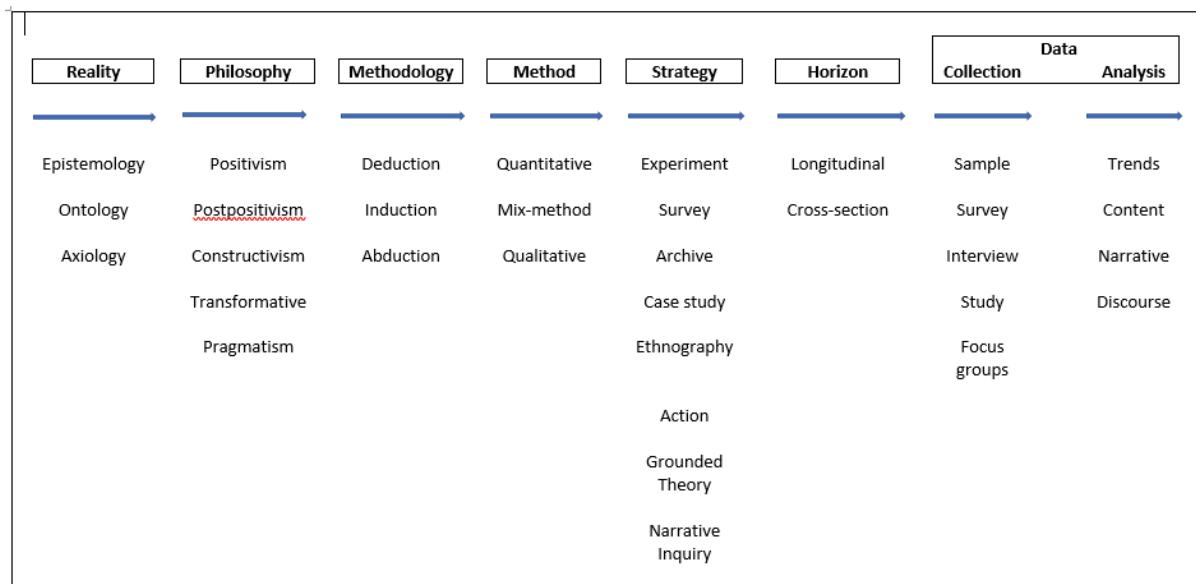


Figure 3.2: Research structured approach

(Source; adapted from '*The Research Onion*', Saunders *et al.*, 2012 with themes derived from Creswell and Creswell, 2018, and Bryman, 2012)

The design progression is by stage from left to right, under each consideration (in bold) with the choices relevant to the heading listed beneath.

Philosophical viewpoint

The problem of obtaining credible and acceptable knowledge raises epistemological considerations through the necessity of adopting a philosophical viewpoint appropriate to the nature of the research (Bryman, 2012). The areas of epistemology, ontology and axiology are perspectives of reality which are encountered during the research. The viewpoint adopted will influence subsequent choices as the process progresses to ensure consistency and philosophical integrity of the methodology. Therefore, this first step will direct the path of inquiry.

Epistemology concerns “appropriate knowledge” (Bryman, 2012,19) for social research; those matters which are relevant to the objective. Ontology is the perception of whether the “social world” (Bryman, 2012,19) is shaped externally or internally. Axiological matters are those which are value driven in societal and ethical terms.

The epistemological approach focusses on knowledge, necessarily something which is objectively accepted as true. As the question is seated in subjectivity, it is not an appropriate fit without robust hard data.

Ontological matters will be highlighted throughout the research as opinions and perceptions become known whether specifically sought, or not. Chapter 2 discusses the Influential spheres in which organisations reside as illustrated in Figure 2.5. That social positioning raises ontological considerations; whether organisations perceive the external world as beyond their control, or an element which they can shape (Bryman, 2012) either as an organisation or through their network.

Axiology focusses on philosophical and societal values which do not form the context sought through this research although they may be raised through the course of inquiry. While the societal values have impact, the research did not seek to ascribe meaning to organisational values or ethics; its objective was more prosaic.

Choice: Ontology a natural selection for the purpose of the study.

Philosophy

The next stage is to select what is termed by Creswell and Creswell (2018,5) the “*World view*” of the researcher. The four views are “*Postpositivism, Constructivism, Transformative, and Pragmatism*”.

Before addressing postpositivism, the question of what constitutes “*positivism*” is considered. Bryman (2012) identifies inherent strands,

1. epistemologically acceptable knowledge must be confirmed by the senses (“*phenomenalism*”),
2. theory exists to be tested by hypothesis through which explanations are possible (“*deductivism*”),

3. knowledge is gained through accumulating fact from which explanations can be drawn (“*inductivism*”),
4. science should be conducted without pre-set values (“*objective*”).

“There is a clear distinction between scientific statements and normative statements and a belief that the former are the true domain of the scientist. This last principle is implied by the first because the truth or otherwise of normative statements cannot be confirmed by the senses” (Bryman,2012,28).

The inductive and objective approaches hold attractions and are relevant however, the latter includes ‘*normative*’ which is defined as,

“That constitutes or serves as a norm or standard; implying or derived from a norm; prescriptive.” (OED, 2021).

Nothing within this principle, whether scientific or normative, aligns with the objectives of the research.

Creswell and Creswell (2018,7) draw on Phillips and Burbules (2000) for the assumptions underlying Postpositivism;

1. absolute truth is unachievable, knowledge is imperfect therefore hypotheses are not proved, there is a failure to reject,
2. research is an iterative process of claims which are subsequently abandoned or replaced,
3. knowledge is shaped by data, evidence, and rationale,
4. research develops relationships between data and evidence,
5. objectivity is essential.

Constructivism explores understandings that individuals have of their world from which conclusions and theories may be drawn. Creswell and Creswell (2018) note the assumptions identified by Crotty (1998),

1. people form meanings as they interpret their engagement with the world,

2. their interpretation is affected by personal background, history, and societal culture which is shaped by the researcher's own experience,
3. the process is mainly inductive.

For a Transformative worldview, Creswell and Creswell (2018) reflect on the assumptions noted by Mertons (2010),

1. studies focus on diverse and marginalised groups,
2. central to the study are inequality and resulting power relationships,
3. the view links politics and social action,
4. theories are based on beliefs.

Creswell and Creswell (2018,10) set out their own basis for the Pragmatic worldview,

1. pragmatism follows no one system and enables a mix of approaches,
2. researchers have freedom to be flexible,
3. data collection and analysis is flexible,
4. 'truth' is based on best understanding,
5. the rationale of research is justified by how it achieves its objectives,
6. research is reflective of external context,
7. the world within and without are relevant to the study,
8. mixed methods accommodate different worldviews, data collection, and analysis.

Choice: The reductionist and empirical hypothesis or proposal driven nature of Postpositivism is suited to pure quantitative research supported by hard data, therefore it is discarded. The contextual and interpretative nature of Constructivism is suitable for individual social study and not transferable for multiple organisations. The political and change agenda base of the Transformative World view is discarded as not relevant.

However, the practical outcomes sought by the research, the political and social context in which it is set, and the real-world practices it explores, makes the Pragmatism view an obvious choice. It provides the researcher with the theoretical justification to adopt a

bespoke approach to the study. The choice is supported by Creswell and Creswell's (2018) reminder of the need of the research to engage with its intended audience.

Methodology

This part establishes the relationship between the research and the question; whether it is a deductive process with hypotheses being tested by observations; or the findings which initiate a revised theory through induction.

For the deductive approach, a researcher forms a theory which is hypothesis tested, and variables identified. Therefore, the approach is suited to quantitative methods (Creswell and Creswell, 2018).

In contrast, the inductive approach is more generalised and looking for themes through open ended questions from which a theory is formed. Therefore, the approach is suited to qualitative research.

Bryman (2012) offers an alternative based in the inductive approach; '*Abductive reasoning*'. Rather than seeking themes, this approach relies on the understanding and perceptions of the study participants.

Choice: The nature of the question demands a nuanced approach founded on induction. The question seeks an understanding on the perceptions and views of the participants within their own context. This process enables a more dynamic and iterative approach to theory development (Saunders *et al.*, 2012). Therefore, the abduction approach of Bryman (2012) is selected.

Method - overview

Quantitative, qualitative and "*mix-method*" approaches (Bryman, 2006; 2012) are evaluated. The abduction route reflects the type of data likely to be available. Gherardi *et al.* (1987) differentiate between '*hard*' (factual) and '*soft*' (opinion or view) data with the

former being suited to quantitative methods, and the latter to qualitative. Hard data is considered to be that which is indisputably fact and not a score ascribed to a subjective response (as may be found on a Likert scale).

The researcher draws on the evidence available on the choice of methods from the Literature Review. The study includes a review of 143 papers. These are broken down by method which includes a classification of 'other' designated for papers which identify as; concept; literature review; meta-analysis; retrospective; and review. The results are set out in Table 3.1.

Table 3.1: Breakdown of all papers by method

Method	Percentage
Quantitative	24%
Qualitative	38%
Mix-method	6%
Case study	12%
Other	20%
Total	100%

Of these, 55 papers relate to networks or NC. A full analysis of these papers including the territory in which the research is based is set out in Table 3.2.

Table 3.2: Analysis of NC related papers

Year	Author	Method	Territory
1991	Barney	Concept	N/a
2000	Chetty and Holm	Case study	New Zealand
2002	Adler and Kwon	Concept	N/a
2010	Huggins and Johnston	Quantitative	UK
2010	Harrison <i>et al.</i>	Case study	Various
2012	Lawton Smithet <i>et al.</i>	Mix-method	UK
2012	Roy	Qualitative	India
2013	Acs <i>et al.</i>	Other	N/a
2013	Vahlne and Johanson	Concept	N/a
2015	Huggins and Thompson	Other	N/a
2015	Sidhu <i>et al.</i>	Qualitative	Singapore
2015	Tata and Prasad	Qualitative	US
2015	Narayanan	Concept	N/a
2015	Almodóvar, and Rugman	Quantitative	Spain
2015	Zeafarian <i>et al.</i>	Qualitative	Various

Network Capital: How UK SMEs recognise its value in their international strategy?

2016	Somhlahlo <i>et al.</i>	Qualitative	South Africa
2016	Siddiqui <i>et al.</i>	Quantitative	Australia
2016	Luo and Zhong	Concept	N/a
2016	McCann and Ortega-Argilés	Concept	N/a
2016	Liu <i>et al.</i>	Quantitative	N/a
2016	Öberg <i>et al.</i>	Concept	Taiwan
2016	Abrahamsen <i>et al.</i>	Qualitative	Norway
2016	Mitchell <i>et al.</i>	Qualitative	N/a
2017	Nysröm <i>et al.</i>	Concept	N/a
2017	Cavalcanti, and Giannitsarou	Quantitative	Various
2017	Lee	Quantitative	US
2017	Jordão and Novas	Qualitative	N/a
2017	Vahlne and Johanson	Concept	N/a
2017	Agyapong <i>et al.</i>	Qualitative	Ghana
2017	Spiegel and Harrison	Concept	N/a
2018	Alinaghian and Razmdoost	Case study	Various
2018	Hallam <i>et al.</i>	Quantitative	US
2018	Neumeyer <i>et al.</i>	Quantitative	US
2018	Bonini <i>et al.</i>	Mix-method	Italy
2018	Seet <i>et al.</i>	Case study	Australia
2018	Pratono	Qualitative	Indonesia
2018	Nuryakin <i>et al.</i>	Qualitative	Indonesia
2018	Herbane	Qualitative	UK
2018	Ivy <i>et al.</i>	Qualitative	Belarus and Ukraine
2019	Ding <i>et al.</i>	Quantitative	Various
2019	Ripollés and Blesa	Qualitative	Multi- national
2019	Gu <i>et al.</i>	Quantitative	China
2019	Hsueh and Gomez-Solorzano	Concept	N/a
2019	Hernández-Carrión <i>et al.</i>	Qualitative	Spain
2019	McAdam <i>et al.</i>	Qualitative	UK
2020	Salder <i>et al.</i>	Other	N/a
2020	Dankyi <i>et al.</i>	Quantitative	N/a
2020	Harjoto and Wang	Quantitative	UK
2020	van de Brake <i>et al.</i>	Quantitative	Netherlands
2020	Spinelli <i>et al.</i>	Quantitative	Japan
2020	Anjos and Reagans	Case study	N/a
2020	Omar <i>et al.</i>	Qualitative	Malaysia
2021	Shi <i>et al.</i>	Quantitative	China
2021	Byrne <i>et al.</i>	Qualitative	Ireland
2021	Cárdenas	Concept	N/a
2022	Davies and Giovannetti	Quantitative	N/a

The quantitative/qualitative split is evenly balanced with mix-method the least employed. It is notable that 'other' contributes a significant proportion of the work suggesting the knowledge of the theory is still evolving and lacking empirical evidence.

Method – discussion

A quantitative approach assumes that a measurement can be devised for application to a hypothesis, the variables and analysis of which inform conclusions. The procedures do not connect data to wider human experience (Bryman, 2012). The quantitative approach is,

“The analysis of relationships between variables creates a static view of social life that is independent of people’s lives” (Blumer, 1956,685).

They are suited to surveys (Creswell and Creswell, 2018) and to the positivist view (Robson, 2011).

In contrast, the qualitative method is emergent and suited to open ended questions and subjective analysis. It is suited to the inductive approach. Table 3.3 sets out the differences and similarities between the two methods.

Table 3.3: Method comparison (Source: Bryman, 2012)

Quantitative	Qualitative	Similarities
Numbers	Words	Data reduction
Researcher’s point of view	Participant’s point of view	Answering questions
Researcher distant	Researcher close	Relate data analysis to LR*
Theories and concepts tested	Theories and concepts emerge	Concerned with variation
Static	Process	Frequency enables analysis
Structured	Unstructured	Address deliberate distortion
Generalisation	Contextual understanding	Transparency required
Hard, reliable data	Rich, Deep data	Address error
Macro	Micro	Appropriate to research
Behaviour	Meaning	
Artificial setting	Natural settings	

* Literature Review

Spiegelhalter (2024) argues that both quantitative and qualitative methods reach the same point. The former provides a ‘direct pathway’ to a claim via data accepted as valid, and the latter reaches that destination through gaining confidence by understanding imperfect data.

The third option is the mix-method approach which combines both methods either simultaneously, or at different stages. This option is consistent with the pragmatic and inductive approaches. Table 3.4 sets out a comparison between the three methods.

Table 3.4: Mix method comparison (Source; Creswell and Creswell, 2018)

Quantitative methods	Qualitative methods	Mixed methods
Pre-determined	Both pre-determined and emerging methods	Emerging methods
Instrument based questions	Both open- and closed- ended questions	Open-ended questions
Performance data, attitude data, observational data, and census data	Multiple forms of data drawing on all possibilities	Interview data, observation data, document data, and audiovisual data
Statistical analysis	Statistical and text analysis	Text and image analysis
Statistical interpretation	Across databases interpretation	Themes, patterns interpretation

Choice: Due to the relative lack of hard data, and the experiential nature of the research, the mix-method approach is adopted. The quantitative approach will be applied to any hard data acquired and a qualitative approach for the opinion driven information. Flexibility is retained to enable supplementation between the methods as necessary.

Strategy

The structure developed thus far, the predicted challenges, and the anticipated lack of hard data point to the need for a multi-stranded strategy.

Experiments are appropriate to understanding the effects of applying a certain influence (Creswell and Creswell, 2018). It is anticipated that some influences will become apparent through the course of the research however, that is periphery to its focus. A study of archive material is likely to provide some background information of limited value over that identified in the Literature Review.

Similarly, action research which seeks a solution to a problem (Bryman, 2012) is rejected as unsuitable although it may be employed for further studies.

Ethnography, the study and general categorisation of behaviours (Creswell and Creswell, 2018), is also incidental to the research which as a potential influence, may be of tangential interest only.

A narrative inquiry is a method suited to understanding specific events, and therefore inappropriate for adoption.

A grounded theory approach accommodates the requirements arising from an abductive methodology and mix-methods.

Choice: The grounded theory approach is appropriate due to the likely scarcity of useful hard data, the principal reliance will be on soft data garnered through qualitative methods.

Horizon

Longitudinal studies form a picture of behaviours and understanding over a prolonged period. However, the objective of this research is to take a realistic snapshot of UK SMEs, during a particular period and context.

Cross-sectional studies are informed by data from differing sources to provide a 'snapshot'.

Choice: Due the variation in nature of the organisations at the heart of the study, a cross-sectional approach is selected to ensure a breadth of understanding from differing sectors and geographical regions.

3.2 Research design

Having developed the philosophy, the design is created informed by the process set out in this section.

Data required

The questions demand opinion-oriented answers. However, it is considered that hard data can provide support and validation. The hard data will be provided by exploring the background to participating organisations from which trends might emerge.

The options of how the data will be collected is considered. The questions examined above are open and invite unstructured answers.

Closed questions with answers limited to a few alternatives will enable easier analysis. It is anticipated that question coding will not provide the solution to analysis on its own, which points to a bespoke approach. To inform the process, the principal areas of enquiry are split into sub-questions set out in Table 3.5 drawn from themes identified by the researcher and which emerge from the review of existing literature. The data types are defined as; hard, facts suited to quantitative approaches; and soft, opinions expressed through qualitative methods. These definitions inform the mix-methods and subsequent analysis. The criteria for hard and soft data reflect the discussion above (Method – overview).

Table 3.5: Sub-areas and data types (Researcher's synthesis)

Sub-area	Data type
Access and barriers to internationalisation	Soft (possibly hard if evidenced)
Types of network engaged	Hard
Networking – organisational or individual	Soft
Level of participation	Soft
Network members	Hard
How networks are formed	Soft (possibly hard if evidenced)
Network objectives	Hard
Level of trust	Soft
Culture – open or closed	Soft (possibly hard if evidenced)
Use of network	Soft (possibly hard if evidenced)
Length of network life	Hard
Relevance to internationalisation	Soft
Relationships with MNEs	Soft (possibly hard if evidenced)
Academic links	Soft (possibly hard if evidenced)
Government links	Soft (possibly hard if evidenced)
Propensity to network	Soft
Location/clustering	Hard
Ethnicity and gender	Hard

This process demonstrates the need for a balanced approach to the methodology and its influence on the design. It also highlights how some of the opinion orientated answers might become hard data if credible evidence is offered. Therefore, the need to retain flexibility in the design and process is apparent.

Research design

The objective of the design is to overcome the expected challenges and enable valid analysis. The specific aims of the research are set out which inform the “*Procedures of inquiry*” (Creswell and Creswell, 2018,133).

The first aim is to establish the extent of the internationalised SME population in the UK and as far as possible, characterise its nature.

The second aim is to understand through interrogation; SMEs’ knowledge, acceptance, use, and attitudes towards NC.

Network Capital: How UK SMEs recognise its value in their international strategy?

The third aim is to understand SMEs' approach to strategy and the place of their network in that.

The fourth is to understand SMEs' approach to internationalisation and the place of their networks in that.

The fifth aim is to generally inform the research through opinion and idea development.

The sixth aim is to collate and analyse the data and other information to enable conclusions to be drawn.

It is apparent that the qualitative method will be applied to achieve the second to fourth aims therefore, it would carry more weight and influence on the results.

3.3 Data collection

This section sets out the detail of the research design and rationale.

Method selection

The aim is to evaluate SMEs understanding of networks, strategy, and internationalisation. Robson (2011,67) discusses the importance of a '*Conceptual framework*' to encompass a design in which the topics interrelate and shape the form of questions. It is also necessary to consider which questions to prioritise. It is decided that the three themes would be treated in the same order; the logic being that the extent to which NC was understood, impacted the effectiveness of strategy, and internationalisation.

The bespoke nature of methodology enables an ability to 'feel' a way through the process albeit based on established and accepted research techniques. The methods

considered included: desktop research; questionnaires; interviews; case studies; and focus groups.

Some initial desktop work is undertaken as part of the Literature Review which builds on the contextual and background information set out in Chapter 1. Research is required to establish whether there is further information on the level of international activity. It is anticipated this may be sourced through business representative bodies such as the CoC, Federation of Small Businesses (“FSB”), Confederation of British Industry (“CBI”), the Institute of Directors, (“IoD”); policy makers, databases, such as FAME (Financial Analysis Made Easy); and influencers (academics).

By itself, this approach may yield limited value and be compromised by varying perceptions, interpretations, validity, and the original purpose of the data collection. However, it forms part of the wider picture and the process of identifying of a suitable sample size. The involvement of the CBI, DIT, and IoD may also inform the study on MNEs’ perspective of SMEs. While these are perceived to be organisations with a receptive culture, the researcher was aware of Robson’s warning (2011) of a ‘gatekeeper’ mentality acting as a barrier to access their membership or data.

Questionnaires are an established method to gather primary evidence in a manner which is effective, as it is a “*self-administered*” (Bryman, 2012,233). There are drawbacks including unsatisfactory response rates, misinterpretation of the question (Robson, 2011), and respondents being untruthful or incorrect whether deliberately or otherwise (Kotler, 1993). This method of survey combines the collection of both factual and opinion data.

Interviews are valuable for gaining insights and exploring subjects in way questionnaires by their nature, cannot. However, they can also be the source of bias and require careful management (Robson, 2011). They are time consuming (for both interviewer and interviewee), and potentially expensive if travel is required.

Network Capital: How UK SMEs recognise its value in their international strategy?

Case studies provide quantitative and qualitative data (Robson, 2011). While providing a real-life context, Bryman (2012) cautions that their validity, especially when a single case study, can be questionable.

At their best, focus groups combine expertise and creativity to address a problem. Conversely, their dynamic can be destructive, agenda driven, or subject to group think (Robson, 2011). Its size, management of the group, the individuals within it, and time allocated to each section require a particular set of skills (Bryman, 2012).

Choice: The method selected is formed by two stages with quantitative (hard data) research preceding qualitative (soft data) work thus adopting the 'Explanatory method' proposed by Creswell and Creswell (2018). The desk-based work and questionnaires are selected for the first stage.

The second stage is to be conducted primarily through interviews. This will be supported by case studies only if necessary, and if relevant cases could be identified to enhance validity. Focus groups are rejected as it is not clear what value they might add and retained as an option if required. The first stage provides a foundation on which the second stage builds to provide increasing depth, insight, and validation of early findings as illustrated in Table 3.6.

Table 3.6: Summary of data collection choices

Stage	Collection	Method	Status
One	Web-based inquiry	Quantitative	Required
	Questionnaire survey	Quantitative	Required
		Qualitative	Required
Two	Interview	Qualitative	Required
Three	Case study	Qualitative	Optional
Four	Focus group	Qualitative	Last resort

Survey questionnaires

Building on Figure 1.1 (Chapter 1), it is of interest to establish whether there is any correlation between the levels of business activity and internationalisation or clustering

which might suggest higher levels of networking and through this, build on the study of Lawton Smith *et al.* (2012).

The principles behind the questionnaires are drawn from Robson (2011) and Bryman (2012) as set out in Table 3.7.

Table 3.7: Questionnaire guidelines (Sources; Robson, 2011; Bryman, 2012)

Robson	Bryman
<ul style="list-style-type: none"> • Clear and jargon free language • Short questions • Separate questions (not dual answer) • Avoid leading questions • Avoid negative structures • Questions to be relevant to respondents' knowledge (and no jargon) • Questions should be consistent in meaning • Avoid attributing prestige to a view • Questions must be unambiguous • No direct questions on sensitive matters • Frames of reference should be specific • Allow answers to cater for no opinion • Avoid unnecessary detail • Question should always precede alternatives • Avoid producing response sets 	<ul style="list-style-type: none"> • Short questions • Separate questions (not dual answer) • Avoid leading questions • Avoid negative structures • Questions to be relevant to respondents' knowledge (and no jargon) • Allow answers to cater for no opinion • Retain a symmetry between closed questions and their answers • Avoid general questions • Do not rely on respondents' long term memory • Consider 'Forced-choice' against 'tick all that apply'

The challenge of ambiguity is alluded to several times by both commentators in Table 3.4. To mitigate this, it is decided to explain the purpose of the research to potential participants and avoiding jargonistic terms. To ensure consistency of understanding, the definitions for the three themes of networks, strategy, and internationalisation are set out in the introduction.

Further consideration is given to the use of 'open' or 'closed' questions and their respective attributes or challenges, set out in Table 3.8 (Robson, 2011; Bryman, 2012).

Table 3.8: Comparison of open and closed question attributes

Open Questions	
Advantages	Disadvantages
<ul style="list-style-type: none"> • Responses are in free form • Enables unanticipated answers • Mitigates the risk of leading • Encourages exploration • May help form later fixed choice approach • Allows themes to develop 	<ul style="list-style-type: none"> • Answers can be time consuming • Requires pre or post coding • Coding can lose information • Requires more effort by the respondent • Relies on accuracy of researcher • Relies on consistency between researchers
Closed Questions	
<ul style="list-style-type: none"> • Straightforward to process • Enhanced comparability • Options may clarify respondent's choice • Easier to complete • Mitigates bias 	<ul style="list-style-type: none"> • Loss of spontaneity • Ambiguity can cause confusion • Challenge to cover all possibilities • Can antagonise respondents • Does not build empathy

Choice: Bryman (2012) cites a study by Schuman and Presser (1981) which argues that closed questions are more reliable, and hence better, than the open method. However, consistent with the abductive Mix-method approach, it is decided to adopt both to exploit their respective advantages. This is accommodated by closed questions based on fixed-choice or 'Likert Scale' (1932), being followed by an invitation to participants for free comment in each section.

The questionnaire comprises an introduction including definitions for the terms network, internationalisation, and strategy, followed by five sections interrogating,

- information about the respondent organisation,
- the organisation's networks,
- the organisation's internationalisation,
- the organisation's approach to international strategy,
- the organisation's external relationships.

The questionnaire concludes with an invitation to participate further in the research by submitting to interview or case study.

While the researcher wishes to interrogate the life span of networks, this cannot be accommodated in a satisfactory form and therefore, this area will be pursued through interviews or case studies. For both questionnaires and interviews, the style of questions asked is adapted to the type of answers sought appropriate to their soft data nature (Gheradi *et al.*, 1987).

Interviews

The results of the survey facilitate the emergence of themes which can be explored in more detail through interview. The merits of alternative interview structures are considered (Robson, 2011; Bryman, 2012; Booth *et al.*, 2016). While fully structured interviews provide the advantage of control and analysis of answers, this is of limited additional value to the answers provided by the questionnaire survey.

Choice: The objective of this stage is to gain an insight and exploration about SMEs' understanding of NC and its use. Therefore, it is decided to adopt a semi-structured approach to allow the interviewee to talk freely around the individual themes.

The interviews are carried out over 'Teams' calls or face to face where possible and recorded with the permission of the interviewee. If consent for recording is not forthcoming, detailed notes are made. In both cases, transcripts and notes are written up as soon as possible after the termination of the interview and, if requested, sent to the interviewee for confirmation of accuracy or amendment if necessary. This provides interviewees with an opportunity to add further thoughts or opinions to their earlier contribution.

Case studies

The final stage of the research is through two individual case studies with the objective of understanding their practical employment of networks. Case studies add to both quantitative and qualitative elements of the research (Robson, 2011). The types of case studies outlined by Bryman (2012) are considered, being *Critical* (hypothesis testing),

Extreme (unique example), *Representative* (typical or ‘exemplifying’), *Revelatory* (ground-breaking), and *Longitudinal* (time reflected).

Choice: This study does not seek; to test a hypothesis; to highlight an extreme situation; or enjoy the benefits of a long horizon. The results are intended to contribute to and shape understanding which is unlikely to be considered seminal. Therefore, Representative is selected as the most appropriate match to the objective.

The use of *Pilot Studies* is widely recommended (Robson, 2011: Bryman, 2012: Creswell and Creswell, 2018) and adopted at each stage with a sample audience of an appropriate participants selected for feedback or critique to finesse the final design and ensure that clarity is achieved.

The quantitative research is essential to provide a foundation on which the remaining stages could build. The qualitative methods enrich the process of analysing “*thematic*” and “*narrative*” content which encompass the ‘five justifications’ of Greer *et al.* (1989). Their application is to ensure robustness of research: “*Triangulation*” provides authentication and validation of the data acquired through the quantitative research stage; “*Complementarity*” lends enrichment to the combined mix-methods; “*Development*” advances the process; “*Initiation*” investigates opinions or ideas; and “*Expansion*” extends the study as required. The Triangulation stage begins with the survey questionnaires while the Interviews mark the start of the remaining stages culminating with the case studies representing the Expansion phase.

Sampling strategy

A concern is achieving an appropriate sample size for the combination of methods. In Chapter 1, the number of SMEs involved in exporting is reported at a count of just over 137,000. However, the researcher’s view is that internationalisation requires a foothold (Chapter 2, section 2.1.7) more than simple exporting which results in an ‘unknown’ element within the data.

Therefore, while it can be argued that a *probability sampling* (where the selection is known to be representative [Robson, 2011:271]) is possible, the lack of hard data is incompatible with simple random (self-explanatory), systematic (a set selection from an organised ascending or descending list), stratified random (group), cluster (groups with shared characteristics), or multi-stage sampling methods (extended cluster sampling into sub-groups).

Accordingly, it is concluded that a *non-probability* approach was appropriate as certainty of knowledge is not possible (Robson, 2011; Creswell and Creswell, 2018). Sampling methods considered included *Quota* (representative categories), *Dimensional* (matrix approach), *Convenience* (ease of reach), *Purposive* (emergent themes), and *Snowball* (referred participants) (Robson, 2011; Bryman, 2012).

Choice: Purposive is selected for its flexibility, consistency with the grounded theory approach, and ability for the researcher judge when sufficient data had been collected to enable cogent analysis.

Sample size

As the sample size is not determined, Robson's (2011) arguments on the subject are considered. For *non-experimental* designs, Robson suggests that 15 observations are acceptable. For a grounded theory approach, Creswell (1998) and later, Creswell and Creswell (2018) suggest 20-30 interviews should achieve 'saturation'; the point where further data adds little if any value to the research as described by Glaser and Strauss (1967). However, Morse (1994) advocates 30-50 interviews.

Bryman (2012) also discusses the matter at length and reaches a similar conclusion while acknowledging that one researcher advocates a sample of no fewer than 60, and no more than 150. Of the studies conducted in the UK set out in Table 3.2 interviews are the chosen method by Bisignano and El-Anis (2019) and McAdam *et al.* (2019) with sample sizes of 26 and 45 respectively.

Referring to question surveys, Huggins and Johnston (2010) consider that between 50-75 observations are acceptable for a survey over three regions. However, as the interest involves a degree of generalisation and the population sampled is more likely to be *heterogenous* than *homogenous*, a larger sample is desirable. The blended nature of the research is also considered as it is not solely conducted through questionnaires, interviews, or case studies. Robson (2011) cites Borg and Gall (1989) in suggesting 100 total observations.

There is no rationale provided for these targets and to that extent, they are simply drawn from the experience of other surveys as the researcher does here. The observations are summarised in Table 3.9.

Table 3.9: Study observations summary

Study	Survey	Interview	Observations
Robson (2011)			15
Creswell and Creswell (2018)		20-30	
Morse (1994)		30-50	
Bryman (2012)		60-150	
Bisignano and El-Anis (2019)		26	
McAdam <i>et al.</i> (2019)		45	
Huggins and Johnston (2010)	50-75		
Borg and Gall (1989)			100
Mason (2010)		28-31	

Choice: Saturation is chosen as the appropriate method for the grounded theory strategy. 100 observations are adopted as a target for the total between the chosen methods. This would be a nuanced assessment as to when the saturation point is achieved to take account of the aim to achieve representative data from all four nations, and across the regions of the UK. This is also consistent with the approach adopted by Huggins and Johnston (2010). The Targets are in line with the tone of Table 3.9. Bryman (2012) also quotes Mason (2010) who found in a study of 560 theses a mean of 31 interviews, and a median of 28. He also opines that the point of saturation is not to set a target.

The sample will be defined in three categories for clarity and good practice (Oliver, 2010) as set out in Table 3.10.

Table 3.10: Sample category definitions (Oliver, 2010)

Sample	Research method
Respondent	Questionnaire survey
Participant	Interview
Subject	Case study

Sample Skew

It is recognised that the timing of the research during the prevailing challenges together with the cross-sectional technique may affect participants' perceptions in some areas of enquiry, notably attitudes towards the UK government over that period. There is extensive criticism in all forms of media of the government which includes: handling of the pandemic; award of government contracts during the pandemic; 'sleaze'; importing and exporting difficulties arising from Brexit (including an internal border with Northern Ireland); and tensions arising over the question of Scottish independence. The extent to which those judgements or attitudes are shared by SMEs may vary by sector and nation.

Choice: To identity and enable a better understanding of this aspect, it was decided to ascertain sectorial and regional information as part of the data collection.

Response rates

The sample size raises the question of acceptable response rates. Finding guidance on this matter proves difficult. While literature exists for response rates from medical and student surveys, this is considered irrelevant as they benefitted from a strong element of a 'captive audience'; an advantage which this study does not enjoy.

The geographical extent of the study is a factor as different regions and cultures may react differently to requests for involvement in studies. Therefore, the studies which

carried out in the UK are adopted as a potential source for information. Huggins and Johnston (2010) target 750 organisations with questionnaires achieving 83 responses (including 9 unusable), a rate of 11%. Herbane (2019) post questionnaires to 1,200 companies (100 are returned as not known at the address) and achieve 268 responses, a rate of 22%. There are no obvious reasons why the different response rates are achieved. Clifton *et al.* (2020) achieve 121 responses which equates to 6% which they claim to be in line with other surveys.

Lawton Smith *et al.* (2012) also use questionnaires with 114 observations however the target size is not disclosed. They distributed questionnaires at formal network meetings whose participants may feel, to whatever extent, an obligation to comply (if for instance, the cost of the meeting is met through sponsorship). As the meetings are formal, it may skew the results towards their findings.

Choice: As saturation is the chosen method of sample size, applying a hard threshold is not felt necessary. To demonstrate good process, while a target would not be set, a range is adopted as supporting guidance. The target response rate is assessed in line with the mix-method approach. For the questionnaire survey, the target usable rate of between 6-10% is adopted. For interviews and case studies, there is a natural target of 50% to include replacements due to cancellation for reason of changed circumstances or other reason.

3.4 Ethics

The trustworthiness of any research lies in the ethics underpinning its conduct. The researcher has responsibility to; the subjects; the academic community; the potential target audience; and self (Oliver, 2010).

Ethical considerations

Ethical considerations apply throughout the process of research, field work, and analysis,

- identifying and approaching an appropriate sample,
- obtaining necessary consents,
- disclosing purpose of the research,
- understanding what may be either personally or commercially sensitive information,
- accurately recording data,
- respecting the rights of the sample to determine the extent to which they participate,
- safety and health of participants, subjects, and the researcher,
- transmission and storage of data,
- the offer of inducements to obtain data,
- the honest and open collation of data,
- the disposal of originating data,
- assessing any risk of unintended psychological impact on participants or subjects,
- ensuring no 'coaching' occurred through direct interaction,
- ensuring privacy of respondents, participants, and subjects,
- respecting confidentiality,
- respecting the culture in which the participant or subject resides,
- minimising disruption of participants and subjects,
- assessing the necessity of collecting data on gender, ethnicity, or religion,
- remaining objective and avoiding conscious bias or prejudice,
- mitigating unconscious bias or prejudice,
- identifying potential conflicts of interest,
- adhering to university research governance,
- open and full disclosure of results.

(Sources; Oliver, 2010; Robson, 2011; Bryman, 2012; Booth *et al.*, 2016; Creswell and Creswell, 2018).

Ethical conduct

Identifying a suitable sample presents a challenge. To gain access to greatest potential sample, approaches are made to business bodies, regional investment bodies, academic, and professional services organisations.

The approach adopted by Lawton Smith *et al.* (2012) raises another question. While gaining access to SMEs whose network may be achieved through formal and established organisations, there inevitably exists a significant section of emerging entrepreneurs whose contribution to the economy is substantial, and who operate differently. It may be that some of these companies conduct their business at the edge of CSR and just within the bounds of law, or even beyond it. However, their input and experience may be of great value to the research with social media an effective route to access.

Choice: A combination of formal organisations and social media are selected.

Potential sensitivities and vulnerabilities are considered and risk assessed in accordance with guidance by Robson (2011) and summarised in Table 3.11.

The initial communications introduce the researcher and credentials, set out the purpose of the research, the subject of interest, and state that the research is self-funded. The bodies are requested to assist by inviting their members to respond to the questionnaire survey for which a link is provided. Of interest to the research is whether government policies should be nuanced to gender, ethnicity, and religion. However, it is not considered necessary that respondents be required to disclose their status in these respects and the relevant section is designed to avoid what could be perceived as an intrusion.

Table 3.11: Vulnerability and risk assessment summary

Vulnerability	Risk	Comments	Action
Consent	Low	Consent forms provided	N/a
Children	Low	Not relevant to study	N/a
Learning difficulties	Low	Not relevant to study	N/a
Ability to withdraw consent	Low	Consent forms explicitly include withdrawal protocol	
Covid 19 sensitivity	Low	Avoid discussion of pandemic (except economic shock)	
Complaints/concerns submission	Low	Complaints protocol explicitly set out	
Health & safety			
Physical violence	Low	Remote contact methods deployed	
Covid 19 exposure	Low	Remote contact methods deployed	
Environment	Low	Remote contact methods deployed	
Buildings	Low	Remote contact methods deployed	
Personal property	Low	Remote contact methods deployed	
Well-being	Low	Remote contact methods deployed	

Interview participants and case study subjects are intended to emerge from respondents to the survey supplemented by referred participants. Both require face to face and/or telephone meetings. The research is carried out during the Covid-19 pandemic and in accordance with prevailing government guidance relating to meetings, social distancing, self-isolation, testing, and hygiene.

Throughout the case study process, the organisation's progression and approach to their networks was observed, assessed, and conclusions drawn. As with the other methods, the case studies focussed on combining common themes with those which are bespoke to the organisation. In advance of the interviews and case studies the parameters and terms of access to each organisation are agreed including,

- type of contact, including length of meetings,
- contact availability and access within the organisation,
- contact availability and access within the organisation's networks,
- confidentiality and treatment of commercially sensitive information,
- appropriate disclosure to other members of the organisation,
- willingness to participate in any future longitudinal research.

Offers are made to all consenting organisations to sign Non-disclosure Agreements, and to check notes after each meeting to ensure that any sensitive or factually incorrect material is removed at the earliest opportunity. While this carries the risk that data may be altered, it is considered that it is outweighed by the degree of assurance provided to the participant/subject. Furthermore, any alteration of significance can be recorded in the analysis of results.

Throughout the research, the usual ethical considerations are respected: all those surveyed, interviewed, or studied are informed of the purpose of the research and assured of complete personal and organisational anonymity. Participation in the process is voluntary, and interviews only held with those who grant express consent for which forms are provided. Questions are designed to ensure objectivity and mitigate against leading, intrusiveness, gender or race prejudice, and political bias (Robson, 2011). All information and other material collected during the research is held on secure external hard drives and not on cloud services, devices, personal computer, or laptop. The material is not accessed while using any shared public internet services including hotels. Full compliance with General Data Protection Regulation is observed with a strict protocol that no data is shared with any third party. Anonymity is continued through the analysis and writing up stages.

Prior to commencing any research, a full proposal including detailed questions and method statement is submitted to the university's ethics committee for approval which is granted. In addition to the consent from the university ethics committee to proceed, an independent auditor is appointed to review research materials prior to use. While any minor amendments are subject to the independent auditor's consent, any change or revision which is considered by either the researcher or the independent auditor to be significant is referred to the university ethics committee for their approval.

Personal bias

The potential for bias presents another concern. While personal experience can inform the research, it may also lead to excessive subjectivity. The involvement of an external auditor mitigates that risk however, the researcher will maintain a ‘reflective journal’ to write up thoughts, reactions, and attitudes after any interviews.

3.5 Analysis

The mixed-method approach requires quantitative, qualitative, and linked analytical strategies. Bryman (2012) considers that coding is central to the grounded theory approach subject to three rules,

1. categories must not overlap,
2. categories must cover all possibilities,
3. clear rules on how codes will be applied.

Quantitative data

The hard data collected through web and database research is intended to provide factual background. The questionnaire will be analysed and the options of pre- and post-coding are considered (Bryman, 2012). Precoding in advance offers the advantage of straightforward analysis of factual or opinion questions. However, it is more difficult when data is nuanced by language and emergent theme. Therefore, coding is appropriate after collection.

Choice: For closed questions, pre-coding is selected as the answers are fixed while post-coding is selected for open questions where answers cannot be anticipated. From this, trends can be analysed for further exploration in the subsequent phases of research. The findings are also used to triangulate (or otherwise) with the analysis of the qualitative element. The pre-coding is appropriate for any deductive element of the research. The post-coding is consistent with the abductive approach, the ontological

viewpoint, and the relative weighting to be applied to the qualitative data. The blending of the two coding methods is suited to the mix-method and the application to different types of data avoids any potential conflicts during analysis.

As the nature of the hard data is simple, it is not necessary to acquire specialist software as the tools within *Excel* software are sufficient for the required purpose.

Qualitative data

In describing the potential pitfalls of qualitative analysis Robson (2011,465) uses the colourful term “*attractive nuisance*”. The reliance on human and not mechanical analysis can result in several imperfections, listed in Table 3.12.

Table 3.12: Human analytical challenges (Source; Robson, 2011).

Deficiency	Risk
Data overload	Overwhelming human management capacity.
First impressions	Unconscious reliance
Information availability	Emphasis placed on that which is convenient to access.
Positive instances	Tendency to ignore that which conflicts with hypotheses.
Internal consistency	Tendency to discount the novel or unusual.
Uneven reliability	Potential to ignore reliability of source.
Missing information	Incomplete information can be devalued.
Revision of hypotheses	Over- or under-reacting to new information.
Fictional base	Comparison with non-existent base data.
Confidence in judgement	Insufficient self-challenge
Co-occurrence	Concluding false correlation.
Inconsistency	Differing evaluations of same data.

Robson also notes the iterative nature of qualitative analysis as a process that analyses data as it is collected and revisited as further information is received. He therefore advocates strong management disciplines including,

- session summary sheets – complied immediately after interview or other interaction,
- document sheet – basic analysis and data reduction,
- memoing – capturing ideas and opinions,

- interim summary – summary of what has been collected, that outstanding, and a deficiency check.

Whether pre- or post-coding, assumptions are applied to both quantitative and qualitative elements in a framework as recommended by Ritchie *et al.* (2013). The framework is adopted from coding triggers suggested by Gibbs (2007) and set out in Table 3.13.

Table 3.13: Coding triggers (source; Gibbs (2007)

Code	Trigger
Specific acts and behaviours	Opinions
Events	Single events
Activities	Sustained and possibly involving others
Strategies, practices, or tactics	Goal driven
States	Conditions and environment
Meanings	Interpretation, concepts, values
Participation	Adaptation to a situation
Relationships or interaction	Personal state
Conditions or constraints	Social environment
Consequences	Result
Settings	Context of events
Reflexive	Researcher's prompt

Meanings and settings will be the codes deployed with potential for settings and states to be involved.

Method selection

The methods considered include Trends, Content, Narrative, and Discourse analysis (Bryman, 2012). Trends, correlations, and outliers can be identified from analysis of quantitative data however, the objective of the research is to achieve a deeper understanding of organisational behaviours. Therefore, while some trends may emerge, it is anticipated that they will not necessarily provide the value sought by the research.

“Content Analysis is a technique for making inferences by objectively and systematically identifying specified characteristics of messages” (Holsti, 1969,14).

Bryman (2012) offers a critique set out in Table 3.14

Table 3.14: Critique of Content analysis (Adapted from Bryman. 2012)

Advantages	Disadvantages
<ul style="list-style-type: none">• Transparency• Suited to longitudinal studies• It is unobtrusive• Ethically more acceptable• Flexibility	<ul style="list-style-type: none">• Reliant on quality of documentation• Reliant on interpretation of coder• Open to inappropriate conjecture• Difficult to answer the question why?• May result in emphasis of what is measurable rather than important

As the name suggests, Narrative Analysis is appropriate for analysis of personal experiences and opinions through stories. Discourse Analysis is concerned with the use of language and meanings that can be interpreted from that. It can be appropriate for analysing interviews and understanding an argument or perspective being put forward by the interviewee.

Choice: Content Analysis is selected as the principal method of analysis; it is aligned to open code analysis and the grounded theory approach. Robson (2011) describes the process it enables as,

- identifying conceptual categories using open (category) coding,
- interrelating those categories through axial (phenomenon) coding,
- recognising core categories through selective (integration of open and axial) coding.

Through information which might emerge through survey and other hard data, and meanings derived from interviews, Trend and Discourse Analysis are chosen in a supporting role.

QSR Nvivo analytical software is used for coding purpose. Through coding, it is possible to identify themes working through a framework proposed by Ryan and Bernard (2003) illustrated in Table 3.15.

Table 3.15: Theme identifications (Source; Ryan and Bernard, 2003)

Identifier	Example
Repetitions	Sustained recurrences
Indigenous categories	Concepts adopted by participants
Metaphors and analogies	Representation of thoughts and behaviours
Transitions	Natural shifts
Similarities and differences	Comparison of data
Linguistic connectors	Causal or time-based links
Missing data	Scrutiny of question avoidance
Theory related material	Characterisation of themes

The Nvivo coding is in Table 3.16 broken down by theme, node, and references the academic source.

The coding follows the concepts path in Figure 2.12 (Chapter 2). The references are derived from Chapters 1 and 2. This enables findings to be cross-referenced and compared to those from earlier studies to establish similarities or any variances for further exploration if appropriate.

Table 3.16: Nvivo coding

Theme	Node	Reference
Network	Formal	Teece <i>et al.</i> (1997); Lawton Smith <i>et al.</i> (2012)
Castells (2000)	Informal	Lawton Smith <i>et al.</i> (2012); Siddiqui <i>et al.</i> (2016); Jordão and Novas (2017).
Membership	Academia	Teece, (2007); Huggins and Thompson, (2015)
Teece (2007)	Business organisations	Teece <i>et al.</i> (1997); Lawton Smith <i>et al.</i> (2012)
	Competitor	Oparaocha (2015); Siddiqui <i>et al.</i> (2016); Zeafarian <i>et al.</i> (2016)
	Complementary	Teece (2007); Iturrioz <i>et al.</i> (2015); Oparaocha (2015); Alinaghian and Razmdoost (2018)
	Corporate	Acs <i>et al.</i> (2013); Cabanelas <i>et al.</i> (2013); Teece (2014); Jordão and Novas (2017); Svare, and Gausdal (2017)
	Customer	Huggins and Thompson (2015); Almodóvar and Rugman (2015); Schott and Cheraghi (2015)
	Entitlement	Carver (2006)
	Finance	Roy (2012); Oparaocha (2015); Gaganis <i>et al.</i> (2019)
	Government & LA	Teece (2007); Almodóvar and Rugman (2015); Schott and Cheraghi (2015)
	Logistics	Schott and Cheraghi (2015); Oparaocha (2015); Zeafarian <i>et al.</i> (2016)
	Professional	Huggins and Thompson (2015); Almodóvar and Rugman (2015); Schott and Cheraghi (2015)
	Regulator	Oparaocha (2015)
	Supplier	Oparaocha (2015); Jordão and Novas (2017); Zeafarian <i>et al.</i> (2016); Sanyal <i>et al.</i> (2020)
Participation	Frequent	(Huggins and Thompson (2015); Iturrioz <i>et al.</i> (2015); Ruzzier <i>et al.</i> (2017); Somhlalho <i>et al.</i> (2016).
Harrison <i>et al.</i> (2010)	Infrequent	Castells (2000)
	Organisational	Huggins and Thompson (2015)
Benefits	Business Development	Teece <i>et al.</i> (1997); Adler and Kwon (2002); Huggins and Johnston (2010)
Jordão and Novas (2017)	Collaboration	Somhlalho <i>et al.</i> (2016); Agyapong <i>et al.</i> (2017)
Cuervo-Cazurra and Rui (2017)	Credibility	Teece (2014)
	Funding	Ojong and Simba (2019)
	Knowledge	Jordão and Novas (2017); Cuervo-Cazurra and Rui (2017)
	Innovation	Junfeng and Wei-ping (2017),
	International Bureaucracy	Oparaocha (2015); Jordão and Novas (2017); Zeafarian <i>et al.</i> (2016); Sanyal <i>et al.</i> (2020)
	Political Voice	Lawton Smith <i>et al.</i> (2012)
	Reciprocity	Hernández-Carrión <i>et al.</i> (2019)
	Research	Lawton Smith <i>et al.</i> (2012)
	Resilience	Herbane (2019)
	Resource	Mitchell <i>et al.</i> (2016); Nysröm <i>et al.</i> (2017); Hallam <i>et al.</i> (2018); Hånell <i>et al.</i> (2018)
Strategy	Formal and planned	Castells (2000)
Nysröm <i>et al.</i> (2017)	Informal and occasional	Oparaocha (2015)
	None	Teece (2007)
Strategy Input	Customer	Kale and Başar (2018)
Rumelt (2016)	Employee	von den Driesch <i>et al.</i> (2015); Fareed <i>et al.</i> (2016); Sulistiyan and Harwika (2016); Irwin <i>et al.</i> (2018)
	External	Cabanelas <i>et al.</i> (2013); Nyström <i>et al.</i> (2016); Ashourizadeh and Schott (2016)
	Government	Ashourizadeh and Schott (2016)
	Network	Nysröm <i>et al.</i> (2017); Kale and Başar (2018)
	None	Limaj and Bernoider (2019); Eisenhardt and Martin (2000)
International Barriers	Bureaucracy	Oparaacha (2015)
Johanson and Vahlne (1977)	Corruption	Ripollés and Blesa (2019)
	Cost	Eisenhardt and Martin (2000)
	Culture	Zeafarian <i>et al.</i> (2016)
	FOREX	Hernández-Carrión <i>et al.</i> (2019)
	Language	Siddiqui <i>et al.</i> (2016)
	Logistics & Freight	Oparaocha (2015)
	Qualifications	Ripollés and Blesa (2019)
	Regulations	Oparaocha (2015)
	Risk	Herbane (2019)
	Skillset	Ripollés and Blesa (2019)
	Tax	Oparaocha (2015)
	Time Zone	Vahlne and Johanson (2013)
	UK Government	Lawton Smith <i>et al.</i> (2012)
Risk	Conflict of Interest	Somhlalho <i>et al.</i> (2016).
Srivastava <i>et al.</i> (2013)	Knowleage Leakage	Acs <i>et al.</i> (2013)
Ruzzier <i>et al.</i> (2017)	Investment	Eisenhardt and Martin (2000)
	Reputation	Teece <i>et al.</i> (1997)
	Trust	Huggins and Thompson (2015); Iturrioz <i>et al.</i> (2015); Ruzzier <i>et al.</i> (2017); Somhlalho <i>et al.</i> (2016)
	Zero Reciprocity	Somhlalho <i>et al.</i> (2016)
Commitment	Agent	Svare and Gausdal (2016)
Barney <i>et al.</i> (2011)	Territorial	Kirwan <i>et al.</i> (2019)

Integration of analysis

To complete the mix-method approach, the results are integrated following a strategy promoted by Robson (2011),

- using cross-analysis across methods,
- synthesising data for combine interpretation,
- comparison of themes across data,
- pattern analysis,
- converting quantitative data into narrative form,
- iterative analysis through sequential phases.

3.6 Review and conclusion

Through this process, the research structure is selected as set out in Figure 3.3.

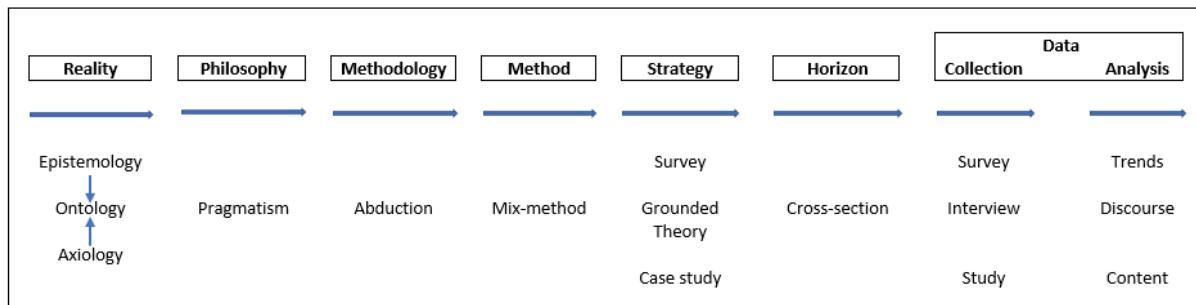


Figure 3.3: Selected research structure (Researcher)

This chapter represents a process through which the methodological approach is built. Once the type of test is established. The structure is established through the 'Research Onion' adapted from Saunders *et al.*, 2012.

The reality considerations result in the choice of 'Ontological' which is suited to the subjective nature of the question. This is set in Creswell and Creswell 's (2018) philosophical viewpoint of 'Pragmatism' which sets the course for the choices that follow.

Induction methodology is consistent with Pragmatism and the research of perceptions. The traditional methods of quantitative and qualitative methods are examined and a mix-method chosen to blend the two disciplines which provides flexibility. Staying with this practical approach, a strategy based on grounded theory is selected with a cross-sectional horizon to reflect the national scope of the study.

The methods selected include web-based research, questionnaire survey and interviews. The option of case studies is held in reserve, with the potential to create focus groups as a least favoured, and final resort. The method choice does not reflect the most popular undertaken in previous studies however, it is established as a valid option.

A sampling strategy is devised with the choice of 'purposive' consistent with the previous selected options. Guidance on sample size is inconsistent, and an approach influenced by Huggins and Johnston (2010) is adopted. Similar challenges are found on response rates and the targets selected are consistent with good practice.

The survey materials are subjected to the university ethics committee and approved. The results will be analysed through Excel (hard data) and Nvivo (interviews) with a blend of pre and post coding. This will be cross-referenced in the results.

The design achieves an appropriate methodology to establish,

- the extent to which SMEs recognise and understand NC,
- the extent to which they employ their networks in strategy creation,
- the extent to which they utilise their networks in internationalisation.

The researcher adopts a systematic approach to the process of the fieldwork stage of the study to enable a balance of rigour, pragmatism, and flexibility as and when appropriate. The extent to which this is successful is set out in the next chapter which describes the conduct of the fieldwork, whether saturation is achieved, the results, their analysis, and discussion.

Chapter 4 Research fieldwork, results, and analysis

4.0 Introduction

This chapter describes the conduct of the fieldwork process. Beginning with the web-based research, the work progresses to the pilot study for the questionnaire survey, interviews, and case studies.

4.01 Contents

This chapter discusses,

- Planning
- Process - Questionnaire survey
- Process - Questionnaire - factual Data
- Results - Questionnaire survey Results – Analysis
- Interviews
- Interview analysis
- Qualitative analysis results
- Case Studies
- Other insights
- Research fieldwork conclusions

4.1 Planning

Dwight Eisenhower is credited with saying “*Plans are worthless, but planning is everything*”. As described in Chapter 3, flexibility is incorporated in the research design for adaptation to the anticipated challenges facing the researcher; it is required.

The plan is to execute four incremental stages,

- web-based research,
- questionnaire survey,
- interviews,
- case study (if required).

Web-based research and geographical limits

As the intention is to collect data from throughout the UK, it is necessary to identify the regions/nations within the UK in a form that is recognised and consistent with other databases. The FAME database enables filtering by government regions which is consistent with aim of informing policy. Accordingly, the identified regions are adopted for defining the boundaries of the research. This also corresponds with the map included in Chapter 1 (Figure 1.1) produced by BEIS.

For the initial web-based research, FAME is reviewed for general information and analysis and as a potential source of survey participants.

The FAME database is interrogated by regions for the three types of SMEs categorised by employee numbers. This is intended to inform the research in terms of regional activity by size. The information is collated by government region and bands of 0-9 employees, 10-49, and 50-249. This data is further interrogated to exclude those organisations without telephone or website details.

It is found that most company websites offer contact through generic emails (e.g. enquiries@, info@) or contact forms. Furthermore, it is apparent that many companies were listed who do not fit the needs of the survey as,

- FAME relies on information filed at Companies House which excludes the self-employed, and those in firms.
- FAME includes businesses which are subsidiaries of national, international, and global organisations; effectively non-SME organisations.

Analysing companies by region and comparing with the overall working population is considered however while of interest, it is concluded the data did not inform the study. Therefore, this approach is rejected. However, the geographical boundaries are adopted for the remaining stages.

A second source of information is available from Nomis, a service provided by the Office for National Statistics (“ONS”). Information is available from the 2021 census and more suitable for the needs and is relevant to the period of the study in which it is set, (<https://www.nomisweb.co.uk/reports/lmp/gor/contents.aspx>).

Pilot stage

The questionnaire

The questionnaire is developed and revised through an iterative process. The first version explores areas of interest to the researcher and the study. While comprehensive, the survey requires a minimum of 20 minutes of a respondent’s time which is considered an unreasonable imposition. This is due to both the number of questions and complexity of answer options. Accordingly, it is decided to set a target time of five minutes for completion.

The second version improves the structure although some questions are considered repetitive and therefore, potentially ambiguous against which Robson (2011) warns. After reviewing the content, it is decided to cull two sets of questions; the first concerning network membership; and a second with a priority rating regarding value. On reflection, these become too complex and unlikely to add to the body of existing knowledge.

The third version is tested as a pilot. Feedback reveals that some questions confuse participants, and completion time remains over that targeted. Open questions such as, “*When do you decide to form or leave a network?*” proved to be too dependent on individual, and unwelcome, interpretation.

The fourth version simplifies the language and excises questions which are considered of peripheral interest only. This is piloted again engendering positive feedback with suggestions on minor revisions.

The fifth version addresses the matters raised and concentrates on the target time which remains around 6-8 minutes. This was the final pilot which was considered successful enough to launch in a sixth and final version.

The finalised survey questionnaire is in Appendix 1.

Interview questions

The interview questions undergo a similar process. As a semi-structured approach is adopted, the process is shorter and is tested through a pilot interview. The researcher learns from this and reflects on how his interview style could be improved to ensure that unintentional ‘leading’ is mitigated.

In contrast to the questionnaire process, the researcher introduces questions such as *“How valuable are your networks to the performance of your business?”* to enable the exploratory nature of the dialogue.

The second and finalised version adds some further questions to the first section of the interview concerning networks.

The finalised interview questions are in Appendix 2.

4.2 Questionnaire survey

National business membership and government organisations

The national organisations identified in Chapter 3 are considered most likely to engage with the research. Around 90 individual approaches are submitted which include a brief introduction and explanation about the nature of the research. The invitation is explicit that direct access to membership is not sought, and the sole objective is to enable the organisation's members to participate on an anonymous, voluntary, and confidential basis. The invitation emphasises the goal of obtaining data from differing and previously under-represented nations, and regions.

A practical hurdle arises when the university moved from the *Qualtrics* platform to *Questionpro* which results in the loss of some data and the need to redesign the questionnaire.

This approach is consistent with the strategy in Chapter 3 which justifies the choice of Purposive sampling. The inherent flexibility of the research design enables adoption of complementary methods including Snowball to achieve the sample targets.

Responses

The survey achieves 102 responses with a completion rate of 83.37%.

From the survey respondents and other approaches, offers of interviews total 46 of which 27 are executed; a completion rate of 59%. Interviews are not sought once the researcher considers there is limited value to any additional data harvested.

Based on the response metrics discussed in Chapter 3 (see sampling; choice), the rates achieved are considered successful in achieving saturation for the questionnaire survey (Huggins and Johnston, 2010), and interviews (Creswell and Creswell, 2018).

4.3 Questionnaire - factual Data

This section discusses the factual data harvested and assesses whether saturation is achieved.

Geographical data

The geographical spread is illustrated in Figure 4.1

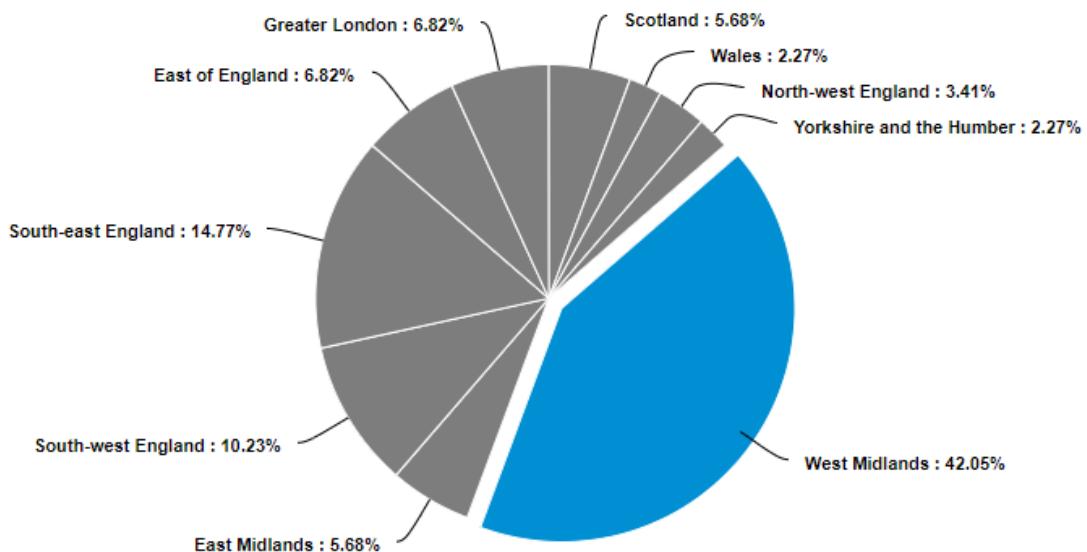


Figure 4.1: Geographical spread

The Researcher fails to achieve any responses from Northern Ireland, and Northeast England despite persistent and targeted attempts. There is no apparent reason why this should be the case although discussions with local inward investment bodies reveal a shared experience of difficulties with engaging with local companies.

While it is disappointing not to achieve total UK coverage, the range achieved is considered satisfactory for the purposes of research and to achieve saturation. Analysis to establish any correlation between regional networks and business density (see Chapter 1, Figure 1.1 – Business by region) is combined with the Nomis. The BEIS and Nomis data both relate to 2021. The data is considered to be within close temporal proximity to enable valid comparison with that harvested through the questionnaire.

The spread of respondents by region does limit some reliance on general interpretation as in those areas where the responses are low, there may be insufficient data to inject a robust level of confidence. Conversely, if the data confirms those areas where a larger representation is achieved, it demonstrates little regional variation. This proves to be the case.

Ownership and employees

The split of survey respondents by employee range is set out in Table 4.1.

Table 4.1: Breakdown by ownership and employee

Ownership	Employees		
	0-9	10-49	50-249
Sole Proprietor	63.64%	36.36%	0%
Family	60%	26.67%	13.33%
Limited Company/LLP	54.69%	23.44%	23.44%

It is considered that this represents a reasonable cross-section of ownership and employees. The weighing of the business size (by employee) reflects that of the Nomis data. Therefore, the range is considered robust.

The split of responses by sector range is set out in Figure 4.2.

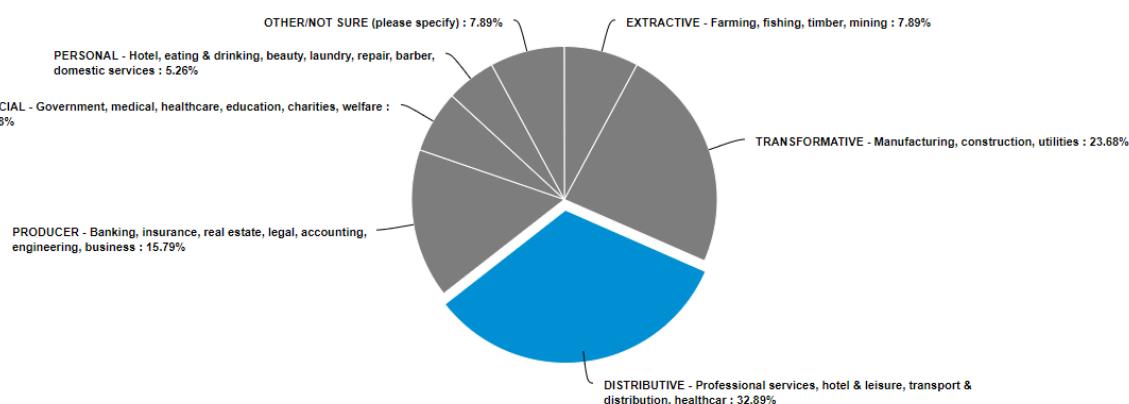


Figure 4.2: Sector representation

This represents the full scope of sectors. Where replies include 'not sure', sufficient information is provided for the researcher to review and allocate the respondent to an appropriate sector. It is concluded that the data is sufficient to achieve saturation.

A similar concern to that of regional spread is considered. There will be an uneven spread across the sectors in reality and therefore, the general representation is felt to be reasonable.

4.4 Questionnaire survey Results – Analysis

A full summary of the responses is set out in Appendix 3. The highlights are discussed in this section.

Networks

The value of networks to business growth is found to be positive (agree or agree strongly) at 81% which supports earlier findings (Teece *et al.*, 1997; Adler and Kwon, 2002; Huggins and Johnston, 2010). While encouraging, the definition of growth can vary between organisations. Even by their own internal measures, the reasons for it may not be fully understood, something which becomes more apparent when addressing strategy, and therefore fails the Huggins and Thompson (2015) requirement for deliberation.

This is reinforced by some respondents who attribute no value in, or reliance on, their networks. This may be an impulse and inauthentic answer, a risk identified in Chapter 3 (Kotler, 1993), or a failure to differentiate between social and organisational networks. To place a zero value is to exclude customers which would normally be considered an existential threat to any organisation. The literature to date naturally concludes – as does the researcher - that (1) all organisations have networks, and (2) those networks will have a membership. The responses may be more reflective of networks with the weak ties identified by Castells (2000) and that these organisations are the 'switched off' types discussed in Chapter 2.

Of those who value their networks, a majority (66%) consider trust to be an essential element within their network (Iturrioz *et al.*, 2015). Taking account of the high representation of micro-SMEs, this may necessarily reflect a greater degree of reliance on personal SC than an organisational culture. It may also be that the smallest businesses are more vulnerable to the consequences of a breach in trust, something which has previously been identified as a risk (Huggins and Thompson, 2015; Iturrioz *et al.*, 2015; Ruzzier *et al.*, 2017; Somlahlo *et al.*, 2016).

A question addresses CSR which is designed to inform about internal culture. While more positive (49%) than not (17.5%), there is a demonstrably ambivalent attitude to CSR. There is no evidence of it being considered a facet of potential value as identified by Upadhyaya *et al.* (2018) with one respondent indicating a possible reason; that it is a requirement of the sector in which they operate. This finding is supported at the interview stage. This suggests to the researcher that if the principles of CSR are not consciously imbued within SME organisations, that casual attitude is likely to extend to their network. In which case, economic business growth is prioritised with a lack of curiosity or scrutiny over its societal impact either domestically or if relevant, internationally.

The benefits derived from organisation's networks are interrogated reflecting themes discussed in the Literature Review. Huggins and Johnston (2010) identify access to resources as the core value of networks. Therefore, the perceptions of the respondents are considered key to informing findings. Chapter 2 discusses the importance of SC in forming networks and as Teece (2014) identifies, providing newly formed organisations with market credibility. This view is supported by a positive response (Very important/Extremely important) at 75% although perhaps slightly lower than the researcher expects.

More surprising is that access to additional resources is less positive at 38% in contrast to many earlier studies which assign importance on this aspect of NC (Teece *et al.*, 1997; Adler and Kwon, 2002; Huggins and Johnston, 2010; Mitchell *et al.*, 2016; Nystöm *et al.*, 2017; Hallam *et al.*, 2018; Hånell *et al.*, 2018). This suggests a high degree of self-reliance

and, perhaps, an entrepreneurial tendency to prioritise control and ownership, linking leadership and culture (Eisenhart and Martin, 2000; Srivastava *et al.*, 2013; Nysröm *et al.*, 2017). Alternatively, relying on the generic word rather than specific resources (identified elsewhere) may be less helpful to respondents.

Another benefit tested is access to another umbrella term of ‘knowledge’ the definition of which is elusive in terms of value despite being regarded as essential to growth (Jordão and Novas, 2017). This is supported by a positive response of 69% albeit given its importance, why would it not be higher? Perhaps consequentially, access to innovation (Cuervo-Cazurra and Rui, 2017) is only 44% positive. It seems reasonable to conclude that this lack of collaboration will deny the creation of the extrinsic value identified by Alinaghian and Razmdoost (2018) which unleashes the real potential for NC, and Barney’s SCA (1991). This may reflect the culture of independence (Huggins and Johnston, 2010). An alternative explanation is a perceived dependence on existing resources, the ‘curse’ noted by Figueiredo and Piana (2018) raised in Chapter 2.

Johanson and Vahlne (1977) discuss the seminal role of internalisation to growth. However, access to foreign markets through networks is only 34% positive. On a more detailed analysis of individual responses, this reflects the lack of intention of many organisations to grow outside a local or the domestic market. Possible explanations include that is sufficient for their organisation’s capacity as identified by Li *et al.* (2018), an aversion to risk (Zeafarian *et al.*, 2016), or lack of expansionist ambition.

Strategy

The question of network involvement in forming strategy raised in earlier papers (Iturrioz *et al.*, 2015; Öberg *et al.*, 2016), attracts a more anticipated response with 35% responding positively, and 38% responding negatively (Slightly important/not at all important) which indicates an area for further examination at interview. The specific link between networks and strategy is nuanced as discussed in the interview section below.

The provision of mutual resilience discussed by Herbane (2019) rated 28% positively and 29% negatively which following the recent economic shock resulting from the 2020 pandemic is, perhaps, a surprise. This suggests two alternatives to the researcher: either the respondent is not a natural collaborator and therefore, missed any opportunities offered through their network; or they do not recognise the contribution of their network during that period. Both options rely on the supposition there was an intention, and effort, to remain economically active during that time.

For those organisations who wish to pursue growth by entering foreign markets, their use of networks in their strategy is addressed. To consider these results, the ‘not applicable’ responses are excluded, and percentages adjusted.

A small majority (52%) review their international strategy on a regular basis, a strong majority over those who did not (19%). Those that consider their networks to be core to their strategy rated 58%, against 11% who do not. This suggests an element of deliberation with a strategic objective consistent with the definition of NC (Huggins and Thompson, 2015). It is evident that companies who intend to internationalise demonstrate a higher propensity to involving their networks in their strategy and therefore, an inherent appreciation of their value. This is confirmed at interview stage. It also reinforces the conclusions by Cabanelas *et al.* (2013) and, Almodóvar and Rugman (2015) that this may be intuitive.

The role of large corporations as part of that international strategic delivery with the benefits described by Kutay (1989) is not confirmed by the results with 24% who reply positively against 44% who do not. This points to the instinctive independent mindset discussed by Huggins and Johnston (2010).

Ashourizadeh and Schott (2016) discuss the potential value of government assistance on delivery of strategy. This question receives a more negative response at 54%, against 27% positive responses. The responses coalesce around the ‘neither agree or disagree’ option indicating a lack of engagement or indifference. The responses balance at the poles of the scale reflecting either a very positive, or very negative experience. This suggests that

the difficulty of government communication identified by Oparaocha (2015) is confirmed. Several interviewees cite their experience during the 2020 Covid lockdown when they were denied government 'Coronavirus Business Interruption Loan Scheme' due to being self-employed or failing to meet some other criteria which injects some prejudicial bias into the data.

The same question of the benefit of academic institutions also achieves 35% negative responses, against 18% of those which were positive in contrast to the findings by Lawton Smith *et al.* (2012). The profile of attitudes is generally similar to that of government although the sentiment is more negatively weighted. This suggests a sentiment of irrelevance underlining the influence of leadership culture (Eisenhardt and Martin, 2000).

Internationalisation

The responses, adjusted to exclude those with no plans to enter foreign markets, show that 62% of companies have or intend to internationalise. This neither reinforces or contradicts the 'early adopter' characterisation (Narayanan, 2015; Hsieh *et al.*, 2018; Bagheri *et al.*, 2018). Nevertheless, 24% have this goal in over five years or no timescale set. This may suggest their strategy for this move is not yet formulated, or that none exists.

The barriers to internationalisation discussed in the Literature Review (Johanson and Valhne, 1977) are examined through a scale of perceived difficulty.

Local regulation is rated an obstacle by 47% which is lower than anticipated from previous studies (Teece *et al.*, 1997; Oparaocha, 2015). This may be that adherence to foreign regulation requires little if any additional measures to achieve compliance. As a former member of the EU, many UK goods and services will have already undergone and retained the necessary processes for continued sales in that market. As that territory is closest geographically, and a significant trading partner for the UK, it may be sufficient for respondents' capacity.

At 30%, language (Siddiqui *et al.*, 2016) is also less regarded a difficulty than might be anticipated notwithstanding that English is generally recognised as the predominant internationally spoken language in business. It is possible with the level of foreign nationals residing and working in the UK, that language capabilities are growing and employed as an internal resource. Alternatively, UK companies may simply seek out, or are preferential to, territories where English is prevalent.

More respondents (40%) are positive about local culture in contrast to previous findings (Pinho and Prange, 2015; Oparaocha, 2015; Costa *et al.*, 2016), than regarding it a difficulty (22%). This suggests that as different societies increasingly interact, they become more comfortable with different customs as discussed by Bisignano and El-anis (2019), even if integration is resisted.

The availability of credit terms is also seen as less of a challenge than might have been anticipated at 40% (Roy, 2012; Oparaocha, 2015; Gaganis *et al.*, 2019). This might reflect the practicalities of real business in action which requires an element of trust and accommodation. Alternatively, the existing sources of funding have adapted to the market and accommodate the requirements of international trading.

One the greatest challenges anticipated by Oparaocha (2015), logistics, is regarded by as many respondents as 'difficult' or as 'not difficult'. Given the much-publicised difficulties reported and highlighted by the media post Brexit (notably at Christmas 2020, and 2023), this is a surprise. In Chapter 2 (2.1.7) internationalisation is discussed with an example of a florist. The responses may reflect a high reliance on outsourcing to MNEs (Kilpi *et al.*, 2018), and a transfer of that responsibility to a third party.

Further analysis

There is an intention to examine the relationship between size and ownership of company against selected key questions through which to explore the internal culture prompted by the work of Hsieh *et al.* (2018). This analysis starts with recording each response by entry to a matrix formed on excel. This exposes a flaw in the ownership section as some

Network Capital: How UK SMEs recognise its value in their international strategy?

respondents submit multiple entries. This result is skewed as it is evident that many micro companies (1-9 employees) are limited companies rather than sole proprietors. The decision is taken to disregard ownership and concentrate on size of organisation.

Survey statement: “*Networks are essential to the growth of our business*”

Table 4.2: Networks – growth

Size	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
0-9	2%	7%	13%	30%	48%
10-49	10%	10%	0%	45%	35%
50-250	7%	0%	0%	36%	57%

There appears to be no correlation between the size of organisation and the propensity to value its networks. The results indicate a positive view of the value of networks. Referring to academia involvement in networks, there is no evidence to support the proposition by Huggins and Johnston (2010) that there is a relationship between size and network value.

Survey question: “*How soon after the creation of your organisation did you (or intend to) establish a position in a non-domestic market?*”

Table 4.3: Networks – internationalisation

Size	On formation	Within 1 year	1-5 years	No timescale	Not applicable
0-9	18%	14%	7%	23%	37%
10-49	20%	5%	10%	15%	50%
50-250	21%	0%	14%	43%	21%

The number of companies already in international markets is similar across the range bands. Those considering entry is perhaps more inconclusive however, a picture emerges that companies in the 10-49 employee range are more averse to trading outside domestic markets whereas it might have been expected that as organisations grow, the driver to internationalise intensifies. It appears many SMEs seem content to reside solely in the domestic market confirming the findings by Li, *et al.* (2018). Equally, the data confirms the theory of ‘Born Globals’ (Monferrer *et al.*, 2015). However, the reliance on

internationalisation by medium sized business for growth, advocated by the OECD (2018) appears to be unsupported by activity.

Survey statement: “*Our organisation regularly reviews its international strategy*”

Table 4.4: International strategy

Size	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
0-9	21%	11%	25%	32%	11%
10-49	0%	22%	33%	33%	11%
50-250	10%	0%	30%	40%	20%

These returns are directly impacted by those respondents with no intention to internationalise. That is ameliorated by those organisations who still consider its potential. At the positive end of scale (somewhat agree/strongly agree) it appears that the largest band of employers adopt a more formal approach to creating strategy. Across all three size ranges, the percentage of organisations reviewing strategy is low. Overall, the sentiment is broadly positive. The broad spread of data might suggest a gap in management skills for this area (Vahlne and Johanson, 2013).

Survey statement: “*Networks are core to our organisation’s international strategy*”

Table 4.5: Networks – International strategy

Size	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
0-9	14%	0%	33%	33%	19%
10-49	0%	0%	44%	22%	33%
50-250	11%	0%	33%	33%	22%

This set generally affirms the findings of organisations valuing their networks in previous works (Iturrioz *et al.*, 2015; Öberg *et al.*, 2016). The tone of the results is generally positive and consistent across the size ranges. The data indicates a positive inclination towards collaboration (Somhlahlo *et al.* 2016; Agyapong *et al.*, 2017). As a company faces the increased complexities of this move (Johanson and Valhne, 1977), it may be that the involvement of network members mitigates the inherent risks (Zeafarian *et al.*, 2016).

Survey statement: “*Government helps to deliver our organisation's strategy*”

Table 4.6: Networks – Government

Size	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
0-9	28%	34%	14%	21%	3%
10-49	45%	36%	9%	0%	9%
50-250	7%	29%	14%	50%	0%

It is difficult to draw any conclusions from this as the only range which evidences some consistency is under ‘somewhat disagree’. The Researcher cannot be certain of motives behind the responses which may include a general disillusionment with government rather than actual experience. There is a more positive sentiment evident in larger organisations. The results again reinforce the proposition by Oparaocha (2015) that there exists a disconnect between government and the organizations they seek to nurture.

Survey statement: “*Academic institutions help to deliver our organisation's strategy*”

Table 4.7: Networks – Academic institutions

Size	Strongly disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
0-9	34%	21%	31%	14%	0%
10-49	20%	30%	30%	10%	10%
50-250	15%	31%	31%	23%	0%

The negative responses counterbalance those which are positive by the larger organisations and supports the suggestion by Huggins and Johnstone (2010). It is perhaps, unsurprising that the smallest band of employers perceive less value. However, that may be sectorial as raised in the critique of the study by Lawton Smith *et al.* (2012).

Triangulation; quantitative and regression analysis

The data is subjected to correlation and regression tests set around two questions,

- “*Networks are essential to the growth of our business*”. This forms the X axis, representing the independent variable scored on a Likert scale (Strongly disagree = -2; Somewhat disagree = -1; Neither disagree or agree = 0; Somewhat agree = 1, Strongly agree = 2).
- “*How soon after the creation of your organisation did you (or intend to) establish a position in a non-domestic market?*” This forms the Y axis, representing the dependent variable. Scoring is more challenging due to the structure of the question. The researcher concludes that the temporal distance between an intention to internationalise and commitment reduces the score as execution becomes less certain. A Likert scale is adopted (On formation =1; Within one year = 0.75; within one-five years = 0.5; No timescale = 0.25; Not applicable = 0). The resultant data is included in Appendix 4 and tested through the Excel correlation function which returns a score of 0.46 indicating what Bruce Ratner (2009) termed a ‘*moderate negative*’.

The same data was tested through regression analysis with the summary output in Table 4.8. The R Square is 0.056 suggesting a very weak causal relationship between internationalisation and its dependence on networks and growth.

Table 4.8: Questionnaire regression analysis

SUMMARY OUTPUT						
Regression Statistics						
Multiple R	0.236140745					
R Square	0.055762451					
Adjusted R Square	0.043656842					
Standard Error	0.376871532					
Observations	80					
ANOVA						
	df	SS	MS	F	Significance F	
Regression	1	0.65424718	0.654247	4.606332	0.034962897	
Residual	78	11.07850782	0.142032			
Total	79	11.732755				
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	0.104921546	0.125767991	0.834247	0.40669	-0.14546329	0.355306
1	0.326847812	0.152288807	2.146237	0.034963	0.023664086	0.630032
					0.023664	0.630031538

Therefore, while there is a reasonable correlation between network involvement and internationalisation, confirming the data regarding international strategy, there is no evidence that participation in a network will lead to internationalisation.

A further layer of analysis compares,

- the data harvested from the respondents,
- The density of business map (Chapter 1, Figure 1.1),
- The census information available from Nomis.

The density of business map is derived by dividing the number of businesses by per 10,000 population in the relevant region. For the purposes of analysis, each band of density is allocated a grade by the researcher as set out in Table 4.9.

Table 4.9: Business density band by grade

Density Band	Grade
799 or less	Lowest
800-999	Low
1,000 to 1,199	Average
1,200 to 1,399	High
1,400 or more	Highest

The Census data from Nomis classifies the ‘economically active’ population as being either in employment or unemployed which distinguishes from the ‘economically inactive’ through age or capability to work. The business count is extrapolated from the Interdepartmental Business Register, and information held by HMRC.

The comparator information is set out in Table 4.10.

Table 4.10: Survey, BEIS, and Nomis data

	East Midlands	East of England	Greater London	North East	North West	Northern Ireland	Scotland	South East	South West	Wales	West Midlands	Yorks. & Humbers.
Economically active	2,560,000	3,492,000	5,197,000	1,262,000	3,864,000	921,000	2,776,000	5,149,000	3,128,000	1,558,000	3,090,000	2,806,000
Enterprises												
SME												
Micro (0-9)	161,910	242,510	478,225	63,060	235,360	70,565	150,360	362,215	210,165	93,995	192,235	167,855
Small (10-49)	16,365	22,755	41,610	7,460	25,075	6,925	18,030	34,240	21,625	9,335	19,495	18,250
Medium (50-249)	2,980	4,120	8,470	1,270	4,565	1,200	2,895	6,235	3,590	1,560	3,445	3,250
Total	181,255	269,385	528,305	71,790	265,000	78,690	171,285	402,690	235,380	104,890	215,175	189,355
Large (250+)	780	995	2,480	370	1,135	245	705	1,670	780	340	960	825
Total enterprises	182,035	270,380	530,785	72,160	266,135	78,935	171,990	404,360	236,160	105,230	216,135	190,180
SME % Econ. Pop.	7%	8%	10%	6%	7%	9%	6%	8%	8%	7%	7%	7%
Large % Econ. Pop.	0.03%	0.03%	0.05%	0.03%	0.03%	0.03%	0.03%	0.03%	0.02%	0.02%	0.03%	0.03%
Total	7%	8%	10%	6%	7%	9%	6%	8%	8%	7%	7%	7%
DTI Density (2021)	927	1,124	1,480	700	897	825	752	1,176	1,120	796	930	924
Rank	Low	Average	Highest	Lowest	Low	Low	Lowest	Average	Average	Lowest	Low	Low
Networks & growth	75%	91%	75%	N/a	75%	N/a	85%	73%	75%	12%	83%	87%
Internationalisation	33%	67%	46%	N/a	50%	N/a	40%	31%	25%	0%	36%	37%
Correlation	0.18	0.19	0.29		0.58		0.13	0.05	0.50	0	0.22	1

The data confirms micro-organisations as the largest sector of SMEs through triangulation of the three data sets. SMEs as a percentage of the economically active is reasonably consistent across the regions with Greater London a clear leader. The regional analysis of the networks and growth question returns broadly similar results except for Wales. On the question of Internationalisation, there is greater variation with most regions within the 30-40% range. Within the data considered reliable, the Southwest returns the highest correlation reflecting the need to grow through internationalisation (Johanson and Valhne, 1977), or where better rents can be derived.

The data returns for Northwest, Wales, and Yorkshire & Humberside are treated as outliers as sample size is likely to be a factor. Generally, the correlation reflects the overall the survey data. The Business Density banding of BEIS indicates no correlation with the questionnaire analysis and is inconsistent with the Nomis analysis of enterprises per economically active population. An example is Northern Ireland (low) which has a business count of 9% of the economically active, compared to the Southeast (average) with a business count of 8%.

The survey data is also analysed by sector. The Government typology and definitions are set out in Table 4.11.

Table 4.11: Sectorial definitions

Sector	Example
Extractive	Farming, fishing, timber, mining
Transformative	Manufacturing, construction, utilities
Distributive	Professional services, hotel & leisure, transport & distribution, healthcare, entertainment, communication, wholesale, retail
Producer	Banking, insurance, real estate, legal, accounting, engineering, business
Social	Government, medical, healthcare, education, charities, welfare
Personal	Hotel, eating & drinking, beauty, laundry, repair, barber, domestic services

The results are set out in Table 4.12. The sectors use different channels for their route to market. Extractive products are sold through established routes to wholesale markets through merchant traders who handle the process. The price achieved is not inelastic and as commodities, the market will always trade at the prevailing rates.

Transformative activity is a high-level input typically operating through tender driven competitions where price is not the only factor. The tender process can be lengthy and usually requires a substantial commitment both financially and from other internal resources.

The distributive sector is dependent on reputation, and quality of product. The pricing level is within a competitive public arena and is subject to elasticity.

Producer organisations are also driven by reputation and quality, often in a regulated environment. They are public facing operating in a competitive environment.

The Social sector works within a regulated and legal framework as not for profit or charitable organisations providing a public service. Some operators, such as those who are in the education and medical spheres, are required to compete in the market.

Organisations in the Personal sector are public facing and experiential in their offer. Reputation is important and pricing can be elastic to compete with new entrants, aggressive pricing policies, or to adjust to prevailing consumer levels of disposable income.

Table 4.12: Survey sectorial breakdown

Sectorial	Extractive	Transformative	Distributive	Producer	Social	Personal
Networks & growth	80%	83%	76%	78%	96%	78%
Internationalisation	20%	31%	36%	33%	50%	45%
Correlation	0.22	0.26	0.20	0.61	0.30	0.56

The sectorial data confirms that overall, network value for business growth is valued with the Social sector notably highest. For internationalisation the data is topped by Social and Personal sectors. The Social sector may be influenced by its need to engage with network members through the framework under which they operate in formal and informal environments. The personal sector is fully exposed to open market competition and as such, will seek to exploit opportunities with complementors, or rivals.

While the correlation results for Producer and Personal sectors might suggest otherwise as the only two which are 'moderate positive' (Ratner, 2009), the general tone confirms the low correlation between networks, business growth and internationalisation. It may be that the two sectors are more resource poor than the primary and secondary sectors and therefore, more inclined to seek outside resources through their networks (Srivastava *et al.*, 2013; Ruzzier *et al.*, 2017). The Producer sector will be sensitive to choice of members due their service-based products, the need to preserve consistency of quality, and potential for reputational damage (Ripollés and Blesa, 2019). The driver for the Personal sector will be the same as for the domestic market (Narayanan, 2015).

The data from the sectorial analysis suggests a more distinct difference than that provided by regional comparison. Their respective routes to market appear consistent with their organisational drivers for growth.

4.5 Interviews

Interview process

The interviews are intended to build and enrich the survey data through exploration and understanding of nuances. Interviews are conducted with twenty-four SME volunteers representing the whole range of sectors. A breakdown of interviewee by sector is in Table 4.13.

Three further interviews are held with a civil servant in central government in a relevant business department, a representative of a business network organisation, and one from a network organisation that promotes societal change, and policy philosophy.

The interview with the civil servant is conducted by telephone with notes written up immediately afterwards. All other interviews are conducted by Microsoft *Teams* which are recorded and subsequently transcribed. A few interviewees take up the offer of previewing the questions. One potential interviewee withdraws his willingness to be interviewed having considered the scope of questions⁴.

Table 4.13: Breakdown of interviewee by sector

Sector	Proportion
Extractive	4%
Transformative	21%
Distributive	42%
Producer	17%
Social	8%
Personal	8%
Total	100%

Each interview lasts around thirty minutes and explores three main areas of interest; networks; strategy; and internationalisation.

⁴ The prospective interviewee decided he did not participate in networks and therefore could not assist the study: the long-standing success of his international family business suggests otherwise.

There are other informal telephone conversations with representatives of regional governments, and business network organisations after which notes are made on key points.

4.6 Qualitative analysis

This section considers the qualitative part of the inquiries.

4.6.1 Interview analysis

The researcher is acutely aware of the subjective nature of qualitative analysis. The areas of concern include,

- SME interviewees also completed the questionnaire and therefore, may simply rehearse the same replies,
- interviewees are subject to the researcher's interpretation which may be flawed and,
- those flaws may carry through to any data modelling.

Therefore, a mix of approaches is adopted to assist in the triangulation recommended by Greer *et al.* (1989) and described in Chapter 3.

Firstly, the government and business organisations' interviews or informal conversations provide independent commentary which either accords with or acts as a check to the researcher's findings.

Secondly, a series of analytical tests are modelled.

First test - 'Sense' checking

This model relies on the researcher's reflections on the three key areas of interview. The approach is open to challenge as a reliable and robust method of analysis however its value is considered to lie in any visual pattern that might emerge, or not. The results are illustrated in Figure 4.3.

Sector	No	NETWORK		STRATEGY		INTERNATIONALISATION	
		Participation	Organisational	Activity	External input	Activity	Commitment
Social	1	Low	Moderate	Moderate	Moderate	Low	Low
Distributive	2	Low	Low	Low	Zero	Moderate	Low
Producer	3	High	High	Higher	Low	Zero	Zero
Transformative	4	High	Higher	Moderate	Zero	Low	Zero
Transformative	5	Moderate	High	Higher	Moderate	High	High
Producer	6	High	High	High	Higher	Higher	Moderate
Distributive	7	High	High	Higher	Low	Low	Zero
Distributive	8	High	High	Moderate	Zero	High	High
Distributive	9	Low	Low	Zero	Zero	Zero	Zero
Producer	10	Moderate	Low	Low	Low	Zero	Zero
Personal	11	High	Low	High	High	Moderate	Low
Producer	12	High	High	Higher	Higher	Zero	Zero
Distributive	13	High	High	High	Moderate	High	High
Distributive	14	High	Low	High	Higher	Moderate	Low
Transformative	15	Low	Low	Zero	Zero	Zero	Zero
Extractive	16	HIGH	HIGH	HIGH	HIGH	HIGH	HIGH
Personal	17	Low	Zero	Zero	Zero	Zero	Zero
Distributive	18	Moderate	Low	High	Low	Zero	Zero
Transformative	19	Low	Low	Higher	Higher	High	High
Distributive	20	High	Low	High	High	Zero	Zero
Social	21	Low	Zero	Zero	Zero	Zero	Zero
Transformative	22	Low	Low	Low	Moderate	Zero	Zero
Distributive	23	High	High	Low	Low	Higher	Low
Distributive	24	Low	Zero	Moderate	Moderate	Zero	Zero
Total		15.5	12.75	13.75	9.75	8.75	6.75
Rate		65%	53%	57%	41%	36%	28%

Figure 4.3: Sense check model (researcher)

The Sense Check model is based on the three principal themes of the interviews which the researcher assesses on the participant's level of understanding and engagement of each through their responses. Inconsistencies emerge over the themes of networks and strategy; an interviewee may state their organisation does not engage in networks however, subsequently reveal in discussion how they work with different organisations. Therefore, while their level of engagement may be low, it does exist and reinforces the findings in the quantitative analysis concerning Castell's depiction of the 'switched off' (2000).

Equally, some interviewees discuss strategy in terms more appropriate to business planning. Depending on how they describe the process – if any exists – affects the researcher's perception.

Second test – Triangulation; quantitative and regression analysis

This subjected the data harvested by the *Sense Check* to correlation and regression testing.

The tests are applied to the scores applied to *Network* which forms the X axis and independent variable with *International* forming the Y axis and dependent variable. By this method, the qualitative data is allocated a value to enable quantitative analysis.

To draw further insights, the propensity to engage with the principal themes identified by the researcher are scored by the Likert scale (Zero = 0, Low = 0.25, Moderate = 0.5, Higher = 0.75, High = 1.0).

The total scores are set out in table 4.14. A result in all factors of High would result in a score of 100% which was only achieved in interview 16. This SME demonstrates attributes which characterise the recognition of NC. The organisation participates in their networks with deliberation. Their network includes government, and academia through Ph.D sponsorship for research. Strategy creation is formal and draws in valued opinions as required. Internationally, they have invested territorially in their major markets.

Table 4.14: Interview band scores

Score band %	No.
1-20	17%
21-40	21%
41-60	29%
61-80	21%
81-100	13%

This is broken down by sector in Table 4.15. There is no immediately obvious pattern which emerges. Therefore, the researcher concludes the propensity to exploit NC is influenced by the organisational culture rather than that of the sector which resonates with the observation by Teece *et al.* (1997) in Chapter 2 (2.2.2) that the culture of the organisation affects performance, not that of its sector.

This does not mean that certain sectors need to exploit NC to extend the organisational lifecycle discussed by Salder *et al.* (2020); customers are more likely to seek out Extractive operators driven by requirement, than vice versa. The average scores in Figure 4.15 are within a reasonably similar range except the Extractive interviewee who achieved the ‘perfect’ score. However, this is skewed by the sample size. It is very probable that a larger sample would produce a score more consistent with the other sectors.

Table 4.15: Sectorial breakdown

Score band	Sector	Percentage	Sector average score
1-20	Transformative	25%	43
	Distributive	25%	48
	Social	25%	63
	Personal	25%	35
21-40	Transformative	60%	
	Distributive	20%	
	Producer	20%	53
41-60	Transformative	14%	
	Distributive	43%	
	Producer	29%	
	Social	14%	
61-80	Transformative	40%	
	Distributive	40%	
	Personal	20%	
81-100	Extractive	33%	100
	Distributive	33%	
	Producer	33%	

Correlation

The data from the sense check, included in Appendix 5 is tested for correlation by Excel formula. Again, networks represent the X axis, and internationalisation by the Y axis. This returned a result of 0.41 indicating some relation between the two sets of data and ‘moderate negative’, (Ratner, 2009).

The regression test on the same data returned a R Square score of 0.16 indicating a very weak causation between networks and internationalisation. The output summary in Table 4.16.

Table 4.16: Interview regression analysis

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.40557813							
R Square	0.16449362							
Adjusted R Square	0.1247076							
Standard Error	0.76195351							
Observations	23							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	2.400355	2.400355	4.134458	0.054849932			
Residual	21	12.19204	0.580573					
Total	22	14.59239						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.10579196	0.312167	0.338895	0.738054	-0.543395558	0.754979482	-0.54339556	0.754979482
	0.75	0.456974	0.224741	2.033337	0.05485	-0.01040038	0.92434837	-0.01040038
								0.92434837

The results confirm those from the survey data meeting the ‘triangulation’ test advocated by Greer *et al.* (1989).

Third test - Software analysis

Nvivo software is utilised to analyse the interview transcripts with ‘nodes’ created through the coding set out in Chapter 3 which are attributed to at least one themed ‘set’. In order that later analysis of data harvested is not skewed by repetition, a rule of a single node reference mentioned for each interviewee is imposed. Reference to relevant nodes is either direct, or indirectly through an interviewee’s phrasing of words. The themes are ordered and layered into a logical sequence to create an analytical path.

The results are published in numeric data set out in Appendix 6.

Nvivo results

The references and themes developed are illustrated by the Project map in Figure 4.4.

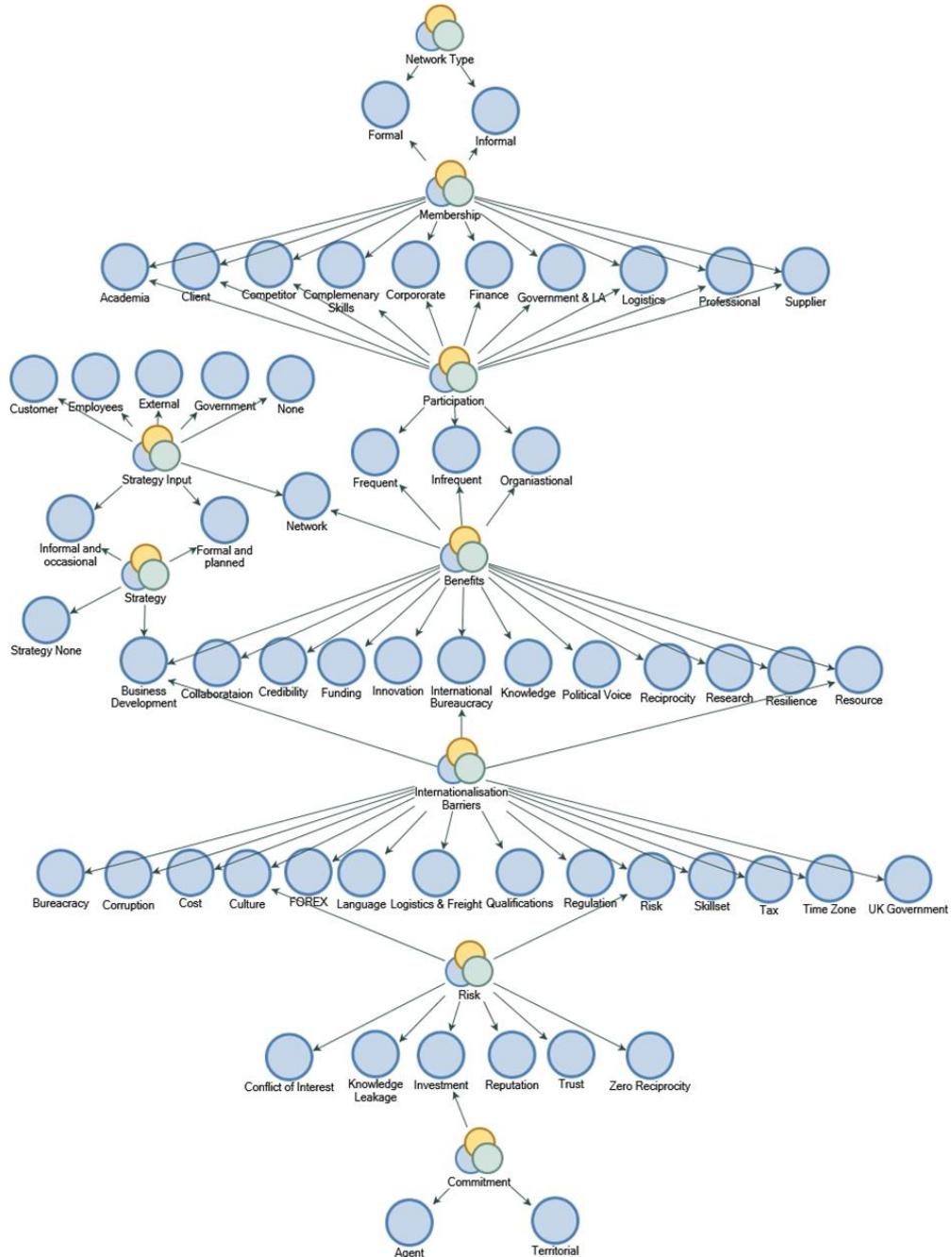


Figure 4.4: Nvivo code mapping

The data from the nodes within sets is harvested by reference and rated as a percentage against a maximum score of all interviewees. A summary by set is in Table 4.17. Each set is assessed for affirmation or contradiction of studies referenced in Chapter 2

Table 4.17: Nvivo analysis

Set	Nodes	Highlights
Network	2	This is split evenly. In practice, those who adopt formal networks will also utilise informal networks. Social media platforms such as <i>Linkedin</i> is treated as 'Formal' as participants tend to use these mediums in a deliberate and organised way. The result tends to support the conclusions of earlier works regarding formal networks (Teece <i>et al.</i> , 1997; Lawton Smith <i>et al.</i> , 2012) and informal networks (Siddiqui <i>et al.</i> , 2016; Jordão and Novas (2017)).
		Conclusion: affirm
Membership	10	Government (national and local) is highest scoring at 48% reflecting the membership identified in Chapter 2 (Almodóvar and Rugman, 2015; Schott and Cheraghi, 2015; Oparaocha, 2015; Zeafarian <i>et al.</i> , 2016; Jordão and Novas, 2017; Sanyal <i>et al.</i> , 2020) with academia next highest at 36% (Teece, 2007; Huggins and Thompson, 2015) and professionals at 32% (Huggins and Thompson, 2015).
		Conclusion: affirm
Participation	3	With low ratings, those who are active in their networks matched those whose involvement can be classified as 'Organisational' suggesting low correlation with NC (Huggins and Thompson, 2015).
		Conclusion: contradict
Benefits	12	The clear leaders are 'Knowledge' (52%) supporting earlier studies (Jordão and Novas 2017; Cuervo-Cazurra and Rui,

		<p>2017), and ‘Business Development’ (Teece <i>et al.</i>, 1997); Adler and Kwon, 2002; Huggins and Johnston, 2010) at 48% with ‘Credibility’ (Teece, 2014) running at 28%.</p>
		<p>Conclusion: affirm</p>
International barriers	14	<p>‘Bureaucracy’ (Oparaocha, 2015) and ‘Culture’ (Zafarian <i>et al.</i>, 2016) rated highest (32%) in contrast to the survey findings with other barriers reasonably spread up to 20% ‘Cost’ (Eisenhardt and Martin, 2000). Time zone is also mentioned (Vahlne and Johanson, 2013).</p>
		<p>Conclusion: affirm</p>
Risk	6	<p>‘Reputation’ (Teece <i>et al.</i>, 1997) at 28% and ‘Trust’ (Huggins and Thompson, 2015; Iturrioz <i>et al.</i>, 2015; Ruzzier <i>et al.</i>, 2017; Somlahlo <i>et al.</i>, 2016) at 24% are the highest rated and closely attributed. This is notably sensitive with Professional Services interviewees who represent the greatest proportion. These aspects are closely associated with local culture.</p>
		<p>Conclusion: affirm</p>
Commitment	2	<p>The clear tendency is for commitment within territory which slightly contradicts the data on cost. This supports the study by Kirwan <i>et al.</i>, (2019).</p>
		<p>Conclusion: affirm</p>

Strategy	3	A majority (56%) favour a formal and regular approach (Castells, 2000) over an informal and occasional review at 24% (Oparaocha, 2015).
Conclusion: affirm		
Strategy input	6	'External' (Cabanelas <i>et al.</i> , 2013; Nyström <i>et al.</i> , 2016; Ashourizadeh and Schott, 2016) at 20% and 'Employees' (von den Driesch <i>et al.</i> , 2015; Fareed <i>et al.</i> , 2016; Sulistiyan and Harwiki, 2016); Irwin <i>et al.</i> , 2018) at 12% are the significant references to strategy input.
Conclusion: affirm		

Findings comparison with previous studies

The mix method approach, and the models adopted, enable the findings of the surveys and interviews to be assessed on whether they affirm or contradict findings from previous studies. The two methods broadly reach the same conclusion. The exceptions result from the interview approach being more suited to exploration as discussed in Chapter 3 (Robson, 2011; Bryman, 2012; Booth *et al.*, 2016).

Table 4.18: Affirmation of previous studies

Finding	Survey	Interview
<u>Networks</u>		
Networks core to business growth		
Teece <i>et al.</i> (1997); Adler and Kwon (2002); Huggins and Johnston (2010)	Affirm	Affirm
Trust within networks is essential		
Iturrioz <i>et al.</i> (2015)	Affirm	Affirm

Organisational value of CSR			
Upadhyaya <i>et al.</i> (2018)		Contradict	Contradict
Networks provide credibility			
Teece (2014)		Affirm	Affirm
Networks provide access to additional resources			
Teece <i>et al.</i> (1997); Adler and Kwon (2002); Huggins and Johnston (2010); Mitchell <i>et al.</i> (2016); Nysröm <i>et al.</i> (2017); Hallam <i>et al.</i> (2018); Hånell <i>et al.</i> (2018)		Contradict	Contradict
Networks provide access to knowledge			
Jordão and Novas (2017); Cuervo-Cazurra and Rui (2017)		Affirm	Affirm
Networks provide access to innovation			
Jordão and Novas (2017); Cuervo-Cazurra and Rui (2017)		Contradict	Contradict
Networks assist access to foreign markets			
Johanson and Vahlne (1977)		Contradict	Contradict
<u>Strategy</u>			
Network involvement in strategy			
Iturrioz <i>et al.</i> (2015); Öberg <i>et al.</i> (2016),		Contradict	Affirm
Networks provide resilience			
Herbane (2019)		Inconclusive	Contradict
Review of international strategy			
Iturrioz <i>et al.</i> (2015); Öberg <i>et al.</i> (2016)		Affirm	Affirm
MNE delivery of strategy			
Kutay (1989)		Contradict	Contradict

Government delivery of strategy			
Ashourizadeh and Schott (2016)	Contradict	Contradict	
Academia delivery of strategy			
Lawton Smith <i>et al.</i> (2012)	Contradict	Contradict	
<u>Internationalisation</u>			
Planned entry to foreign markets			
Narayanan (2015); Hsieh <i>et al.</i> (2018); Bagheri <i>et al.</i> (2018).	Inconclusive	Inconclusive	
Barrier – local regulation			
Teece <i>et al.</i> (1997); Oparaocha (2015).	Contradict	Affirm	
Barrier – language			
Siddiqui <i>et al.</i> (2016)	Contradict	Contradict	
Barrier – culture			
Pinho and Prange (2015); Oparaocha, (2015); Costa <i>et al.</i> (2016)	Contradict	Affirm	
Barrier – credit terms			
Roy (2012); Oparaocha (2015); Gaganis <i>et al.</i> (2019)	Contradict	Contradict	
Barrier – logistics			
Oparaocha (2015),	Contradict	Contradict	

There is a difference in findings regarding network involvement in strategy, and aspects of barriers to internationalisation. The former results from culture and governance (Siddiqui *et al.*, 2016; Jordão and Novas, 2017; Zakharov, 2020), while latter is based on experience (Eisenhardt and Martin, 2000).

The researcher does not suggest that previous studies are disproved; questions are asked from differing perspectives, and to new audiences which will provoke alternative responses. Nevertheless, the participants are authentic enterprises, operating in the real market, with their own outlooks to which the study gives a voice.

4.6.2 Case Studies

The case studies represent Greer *et al.*'s (1989) 'expansion' and involve two UK manufacturers who trade internationally.

Case Study One

This subject is a long-established UK diesel engine manufacturer which employs around 200 people with an annual turnover of approximately GBP 35 million. At this level, the company is considered a 'minnow' compared to its competitors. The company builds small diesel engines for static applications, construction plant, and marine propulsion.

The company has a strong brand recognition and loyalty (Teece *et al.*, 1997). The introduction of vehicle emissions standards (particularly Euro 5 adopted by Europe in 2011, and the USA's EPA Tier 4 in 2014) depleted demand for their products in those territories through regulatory barrier (Oparaocha, 2015). However, demand in the Middle East remains strong. At its height, the company sold into 81 territories although in recent years, it has experienced turbulence through a lack of financial resource, and quality problems. A previous attempt to develop a Tier 4 compliant engine had previously bankrupted the company, and the investment required now is beyond the subject's resources and unjustifiable when measured against likely returns.

Networks

Except where required by local regulations, the subject does not belong to formal associations. The membership of its informal networks includes,

- suppliers. The supply chain is highly international including heavy castings and key critical components (Teece, 2007; Huggins and Thompson, 2015; Almodóvar and Rugman, 2015; Schott and Cheraghi, 2015; Oparaocha, 2015; Jordão and Novas, 2017; Zeafarian *et al.*, 2016; Sanyal *et al.*, 2020),
- customers. These are formed by three categories; original equipment manufacturers (“OEMs”); distributors (their main route to market): and third sector (e.g. charitable aid organisations) (Huggins and Thompson, 2015; Almodóvar and Rugman, 2015; Schott and Cheraghi, 2015; Oparaocha, 2015; Jordão and Novas, 2017; Zeafarian *et al.*, 2016; Sanyal *et al.*, 2020),
- finance. The company leverages heavily off company assets (Roy, 2012; Oparaocha, 2015; Gaganis *et al.*, 2019),
- logistics. Both supplies and finished product are shipped internationally by road, rail, plane, and boat (Schott and Cheraghi, 2015; Oparaocha, 2015; Zeafarian *et al.*, 2016),
- complementary product manufacturers. Many engines are used in static applications such as generators, or pump sets which are developed through collaboration with partners (Teece, 2007; Iturrioz *et al.*, 2015; Oparaocha, 2015; Alinaghian and Razmdoost, 2018).

The benefits gained include,

- credibility through market familiarity with network members (Teece, 2014),
- knowledge gained locally and through innovation (Jordão and Novas, 2017; Cuervo-Cazurra and Rui, 2017),
- business development through the release of extrinsic value (Alinaghian and Razmdoost, 2018),
- resilience, the outbreak of SARS in 2003 severely disrupted supplies especially in China and consequently, a second line of supplier was established for each critical component with an 80/20 commitment strategy employed: The preferred supplier is awarded 80% of orders with the remaining 20% allocated to second choice suppliers to ensure continuity, and the ability to scale up if required (Herbane, 2019),

- collaboration. With the reduction in demand due to emissions regulation, the company is seeking to acquire and rebrand emissions compliant units from elsewhere. This option is attractive due to the prohibitive cost to developing new products (Somhlahlo *et al.*, 2016); Agyapong *et al.*, 2017). The seller partner benefits from the ability to indirectly benefit from new markets, releasing extrinsic value (Alinaghian and Razmdoost, 2018).

Network engagement is high, regular, and organised through business development managers who can draw on technical advice when required. In this respect, the participation can be considered as organisational (Huggins and Thompson, 2015).

The greatest risk is to reputation of the brand if any of the network members fail to perform. A high degree of trust is involved especially around the distribution network. All enquires for a territory, regardless of source, are passed to the local agent to progress. This obligation is supported by a formal agreement. Where breaches are suspected, the company is expected to adjudicate and ensure the continued goodwill between the network members (Somhlahlo *et al.*, 2016).

Strategy

Strategy creation is formal, regular, and frequent. Members of the network are consulted as appropriate, and frequently involve the logistics supplier (Nysröm *et al.*, 2017; Kale and Başar, 2018). A few employees at middle management level are included to help with scenario planning (von den Driesch *et al.* 2015; Fareed *et al.*, 2016; Sulistiyan and Harwiki, 2016; Irwin *et al.* 2018,) and presentation internally and to network members. Government and academia are not considered as contributors. There exists a reasonably jaded view of their value borne of experience, including a fruitless effort to participate in an apprenticeship scheme (Oparaocha, 2015).

Internationalisation

The company consider themselves to be global with its strongest territories overseas.

Potential barriers include,

- culture (Zeafarian *et al.*, 2016),
- logistics (Oparaocha, 2015),
- local regulation (Oparaocha, 2015),
- corruption (Ripollés and Blesa, 2019),
- FOREX (Hernández-Carrión *et al.*, 2019). The strength of the pound to dollar-based currencies is of particular concern,
- reputation (Ripollés and Blesa, 2019). The subject branded a product acquired through a Chinese supplier which suffered a virtual 100% failure rate. This compares to a general rate of around 2% warranty claims for self-manufactured products.

Commitment

The company established production facilities in UK, USA, India, and China. Sales hubs are in the UK, USA, New Zealand, South Africa, and United Arab Emirates. These commitments meet the 'Foot hold' test of Rumelt (2016). The Chinese and Indian enterprises fail due to cultural barriers (Zeafarian *et al.*, 2016), and local ownership regulations. Elsewhere, there is focus on building a strong network of local agents the need for which is identified by Svare and Gausdal (2016).

The commitment in India is an example of a local regulation barrier (Oparaocha, 2015): India adopted emissions controls which preclude sales of the subject's engine products into that territory. However, engines produced within the territory are exempt. Therefore, a plant was set up locally which required a local majority shareholder to meet foreign ownership regulations.

Network Capital: How UK SMEs recognise its value in their international strategy?

The ability to manufacture from different territories enables orders to be fulfilled by those plants where FOREX can contribute greater profit, this has significance when producing higher volumes for OEMs whose negotiating power results in lower profit margins.

Resources

The investment relies on internal shareholder commitment supported by funding secured against product and parts inventory by financial stakeholders in their network (Roy, 2012; Oparaocha, 2015; Gaganis *et al.*, 2019).

Conclusion

This subject relies on its network in all areas and commits investment which yields; delivery of product in overseas territories; local market knowledge; innovation; and after-market support. The involvement of their network, especially the critical component of logistics, in forming strategy indicates the deliberation that defines NC.

Case Study Two

This subject is a UK manufacturer producing specialist security paper counting machines. The company employs around 20 people with an annual turnover of GBP 3 million. The company builds the base machines in the UK which are then transferred to its factory in Germany for accessories to be fitted, testing, and onward sale. Sales departments operate from the UK and Germany. No one within the organisation understands or remembers why the German facility was established.

The brand is well known within its niche sector, considered a market leader, and expensive compared to its other competitors.

Networks

The subject relies on informal networks except where required by local regulation (Lawton Smith *et al*, 2012): the facility in Germany is required to join a recognised business chamber by law. The company also subscribes to a trade body in the UK which promotes sector specific trade shows, however beyond low key attendance at their events, it does not actively participate in associated groups. The company sells into 46 territories.

The informal network includes,

- customers. These are formed by three categories; OEMs, security (banks and governmental organisations), and commercial production applications (Huggins and Thompson, 2015; Almodóvar and Rugman, 2015; Schott and Cheraghi, 2015; Oparaocha, 2015; Jordão and Novas, 2017; Zeafarian *et al.*, 2016; Sanyal *et al.*, 2020).
- distributors (Svare and Gausdal, 2016).

The benefits gained from the network is restricted to local knowledge. Collaboration is not within the corporate psyche. Consequently, engagement is limited to business opportunities with no active effort to expand the networks and introduce new products or applications.

The greatest risk from this approach is trust between the company and its distributors. The subject actively competes with its distributors, and even between the UK and German sales operations (Somhlahlo *et al.*, 2016). This confuses customers at best and who at worst, exploit the intercompany competition. As no supply agreements exist internally, and distributors are not protected by formal agent contracts, no enforcement is possible or perceived by the company as necessary. This has resulted in a breakdown of trust (Huggins and Thompson, 2015); Iturrioz *et al*, 2015; Ruzzier *et al.*, 2017); Somhlahlo *et al*, 2016).

Strategy

The company does not consider there is any value in strategy creation. The view persists that the product is only purchased as a necessity by the customers to avoid breaching regulations and incurring consequential penalties. Examples include being part of security in the bank note minting process, and accurate product counting in the pharmaceutical sector. Therefore, the view adopted is that the market for its machines cannot be expanded beyond its existing level, and the company can only seek to maximise market share. This also restricts any instinct to innovate and develop (Zeaferian *et al.*, 2016).

Internationalisation

The company considers itself as one who simply sells internationally. Therefore, its greatest barrier surrounds logistics and the associated bureaucracy (Oparaocha, 2015).

Commitment

There is no commitment to foreign territories.

Resources

The company is entirely self-funding. The lack of a relationship with a funding partner precludes the potential benefit derived from an external resource on strategy (Cabanelas *et al.*, 2013; Nyström *et al.*, 2016; Ashourizadeh and Schott, 2016).

Conclusion

This company presents a contrast to the subject in Case Study One. It considers that demand for its products is solely driven by its customers' reluctant need therefore, growth is limited by a finite market. Furthermore, as the customer base faces limited competitive choice, they naturally find the company with or without a territorial agent

whose perceived value is accordingly diminished. On this assessment the company fails to recognise NC.

4.7 Other insights

While not within the scope of the interviews, interviewees comment on various matters which are summarised in this section.

The proposal of academia as an appropriate network member provokes polarised responses. Either their inclusion is regarded as a valuable contributor and resource, or the sector is regarded as being retrospective and focussed on generating research funding. The polarisation reflects the data from the questionnaire survey, and interviews.

There is equal scepticism about the value of business organisations. They tend to be perceived as 'talking shops', only interested in their survival by growing membership, or harbouring ambitions to play a regulatory role. This reflects the reference to effectiveness of representation in Chapter 1 (SMEs and government). There may be some justification as in one non-SME discussion, an organisation openly shared their ambition that all businesses be members by law, as imposed on the subject in Case Study Two. Interviewees also complain of being faced with a plethora of choice of bodies who claim relevance and influence which does not withstand closer examination.

Ethics and corporate responsibility feature very rarely during interviews and is limited to those who work with the Third Sector or government. The exemplar organisation referred to earlier is researching sustainable food however, the prime driver was business growth rather than an organisational policy. This resonates with the data from the questionnaire survey.

Government engagement is either perceived very positively as an effective resource, or regarded as an irrelevance, and at worst a hinderance to internationalisation. There

appears to be little middle ground in interviews. This polarisation reflects the data from the questionnaire survey.

Taxation is an area of interests to all Actors. Tax breaks for research and development is considered vital to encouraging innovation. The application of Corporation Tax to all organisations without an annual zero-rated profit allowance is considered to detract from investment.

Value Added Tax (VAT) is raised by several interviewees regarding its relatively low turnover threshold (which some consider should be doubled). The impact of passing the threshold immediately imposes a 20% price increase on end consumers forcing SMEs with a choice; either increase prices and face the consequence of elasticity on demand and growth; or absorb the additional cost (as far as possible). Both options inevitably affect profit.

From the reverse perspective, the non-SME interviews reveal a common frustration and challenge in achieving effective engagement with SMEs. This, perhaps, contributes to an unwillingness to assist in the distribution of the researcher's article which included an invitation to participate in the survey.

There are mixed views on the importance of strategy and its value. While some interviewees dismiss its importance, others admit insufficient focus. However, one interviewee feels that as too much time is spent perfecting a strategy, the practicality of running their organisation and generating revenues is sidelined.

4.8 Research fieldwork summary

This chapter lays bare the challenge of research the imperfect data described by Spiegelhalter (2024) in Chapter 3.

The geographical cross section of response is sufficient for the purposes of the study. Although it fails to achieve total coverage, sufficient primary data is harvested to enable analysis with external data. The results for ownership types, employees, and sector representation are considered satisfactory. The saturation test is met.

The results from the surveys, interviews, and test models generally affirm each other. There is a recognition that organisations recognise value from their networks in business growth. How that value is recognised in strategy creation and internationalisation is nuanced.

Analysis of the data harvested from the survey data indicates a 'moderate negative' correlation between networks, business growth, and internationalisation. There is no causal link. Analysis of correlation between survey and government data is inconclusive although the Southwest region invites further investigation. There appears to be no link between business density and growth or internationalisation.

The data is also analysed by economic sector. The correlation between networks and growth are highest in the social sector which may be due to the unique framework in which they reside. For internationalisation, Producer and Personal sectors stand out, both are exposed to open market competition and elasticity of demand.

The interview results are subjected to several quantitative tests through data extrapolation. The same correlation test is applied and, like the survey data, returns a 'moderate negative' relationship and no causal link.

Software analysis is applied to the interview narrative through coding. This is compared to the findings of previous studies and compares any differences in conclusions between the two methods. The findings generally match on affirming or contradicting previous work with a few exceptions. As described in chapter 3, more weight is attached to interview harvested data.

Network Capital: How UK SMEs recognise its value in their international strategy?

The case studies introduce sharp contrasts between two subjects in the Transformative sector highlighting a deep cultural, and governance divide. This perhaps, sums up the findings of the other inquiries.

The role of government is inconclusive from the survey results, and more positive in interviews which provides a better forum for exploration of the matter. The same may be concluded about the role of academia which attracts a negative sentiment in both surveys and interviews however, in some cases the sector is crucial to organisations.

Where SMEs see government and academia as a valuable resource, they demonstrate the deliberation required by the Huggins & Johnston (2015) definition. However, the polarity of respondents' attitudes to both reinforces the researcher's experience and reflects the research by Oparaocha (2015). This suggests that there is value which is latent and offers the potential to become extrinsic as identified by Alinaghian and Razmdoost (2018), through effective engagement (Huggins and Thompson, 2015).

The withdrawal of the potential interviewee referred to earlier may be symptomatic of a trait which becomes apparent in several instances; the direct nature and specific wording might be perceived as an uncomfortable challenge to those who are concerned with business success rather than how that is achieved. The individual has no formal business qualification, training, or curiosity in that respect.

As a successful entrepreneur, heading a family concern which now employs a second generation. His intuitive, ad hoc approach resonates with the work by Mintzberg and Waters (1985) and Salder *et al.* (2020); he expects his approach to work and as leader of the family organisation, he is expected to 'know' and not subjected to rigorous challenge. Not for him the classic theoretical approach of; purpose; vision; values; planning; and resource commitment. His success imbues a sense of pride, strength, and self-belief. It has worked well for him.

Network Capital: How UK SMEs recognise its value in their international strategy?

However, as highlighted by Hsieh et al. (2018) this culture can eventually fail to exploit NC. This raises the question of how entrepreneurs with a similar mindset are persuaded to appreciate the importance of strategy creation?

The data harvested are sufficient for the researcher to assess the recognition of network value to SMEs, to their strategy creation, and international endeavours.

The next chapter explores the findings further by the principal themes of networks, strategy, and internationalisation.

Chapter 5 Discussion

5.0 Introduction

This chapter further explores themes from the results and findings.

The value of the interview over that derived from questionnaires is demonstrated through the additional insights afforded and which enable the researcher to distil the nuances from some apparent contradictions.

5.01 Content

- Overview of networks
- Overview of Strategy
- Overview of Internationalisation
- Overview of discussion
- Summary

5.1 Overview of networks

There is a sense that membership of formal networks is driven by a need to join for the reasons discussed in Chapter 2, and to be seen as associated with a particular group. This reinforces the requirement for legitimacy identified by Jordão and Novas (2017), and Cuervo-Cazurra and Rui (2017). Formal networks provide an easily identifiable reason for both their existence as an association, and for membership. They are easy to find, welcome new members and as such, provide a convenient introduction to local organisations.

Once that credibility has been achieved (Teece,2014), an emergent theme from the interviews was the need for the investment in time to be rewarded through business

growth (Teece *et al.*, 1997; Adler and Kwon, 2002; Huggins and Johnston, 2010). That may be achieved through the formal network or through the initiation of informal networks.

Informal networks are more complex and exist in a fluid, intangible sphere with no identifiable form which is probably more suited to the micro-SMEs reliant on SC. They may spawn from the formal network. Relying on SC, there may be no direct extrinsic value to gained however, interviewees talked about the benefit of mutual support from like-minded people, and which evolves into strategic input (Herbane, 2019).

A further nuance is the differentiation between those network members who generate value, and those who are simply a resource; the courier delivering flowers over a long distance (Chapter 2; Networks and internationalisation) can create added value to a customer's experience. The bank whose credit card is used for the transaction is a valuable as an enabling resource but offers limited, if any, capacity for extrinsic value (Alinaghian and Razmdoost, 2018). This differentiates NC from the BR described by Almodóvar, and Rugman (2015) as discussed in Chapter 2 (Value creation: Network Capital).

The findings establish that SMEs value their network. However, the distinction between the value associated with NC and BR is not apparent. Many interviewees fail to distinguish which network members offer best value over others. There are notable exceptions for example, the interviewee in education who only derives value through institutional channels and tender opportunities. In this respect, their organisational relationships are purely transactional with no meaningful strategic intent. That organisation saw no value in investing beyond BR, an attitude exemplified by the subject in the second Case Study.

Huggins and Thompson's (2015) definition of NC requires a deliberation in creating relationships. From the evidence of this study, it appears there are organisations who purposefully choose not to invest beyond BR. This may be through a limited ambition for the organisation, or a cultural failure to see the additional benefits that are possible from

NC. As networks and business growth featured highly in both survey responses and interviews, the evidence suggests the latter.

The membership of the networks is consistent with that set out in Table 2.2 (Chapter 2). While noting the variation in responses between the survey questions and interviews, both government and academia show a strong and positive representation notwithstanding some very polarised and negative opinions.

This indicates they are potentially valuable members who are unable to effectively engage as discussed in Chapter 5 (Summary), reinforcing earlier studies by Lawton Smith *et al.* (2012) and Oparaocha (2015). The interviews reveal that government and academic participation in formal networks are generally joined by organisations who feel a necessity to join for credibility purposes only (Teece, 2014), in common with the formal networks discussed above. Therefore, the question arises *how do they engage effectively with SMEs?*

Business organisations, government, and academia complain about the challenge of engaging with SMEs and accessing their time. However, this may be the problem of language raised by (Huggins and Thompson (2015). Formal events typically promote 'networking opportunities' which may be seen as valuable by organisations whose existence depends on their creation such as those found in the Social sector. SMEs do not necessarily perceive the same value from simply meeting people with no apparent prospect of business generation. This is a deliberate choice not to engage in a forum of limited, narrow, or no NC, and represents a converse appreciation of its value.

Academia faces a different challenge. Teece (2007) discusses the risk of homogeneity in business studies in Chapter 2. Entrepreneurs are individuals, disrupters (Scuotto, 2017), leaders (Eisenhart and Martin, 2000; Srivastava *et al.*, 2013; Nysröm *et al.*, 2017), and innovators (Iturrioz, Aragón and Narvaiza, 2015). Where in that chaotic world does the theoretical paradigm sit?

This is not to criticise the Actors individually or collectively. It is to confirm the mismatch of cultures highlighted by Sidhu *et al.*, 2015.

Active network participation is strongest in the Distributive sector albeit the representative sample is highest and may skew data. Nevertheless, there is a degree of hesitancy from interviewees who wish to benefit from networks albeit they admit an inherent social reluctance. This raises the question of whether formal networks offer a suitable forum?

The researcher finds that on a one-to-one basis, interviewees are engaged, expansive, and generous with their time. However, that dynamic may be denied in group setting. One Social sector interviewee admits to the researcher that "*I just love chatting to people*", apparently devoid of any objective purpose. Those who enjoy the social aspect of networking will participate in any opportunities, regardless of the prospective organisational value. The more reluctant or introverted will only engage if potential value is anticipated, and the setting is embracing.

The perceived network benefits reveal some interesting cross-fertilisation between the interrogations. The value of credibility (Teece, 2014) is evidently recognised however whereas three areas which are expected to be valued – additional resources, knowledge, and innovation (Iturrioz *et al.*, 2015; Oparaocha, 2015; Alinaghian and Razmdoost, 2018) – do not stand out in the survey responses, their value is clear in interviews. This may reflect how the question is posed or, and more likely, respondents' focus on 'growth of business'. Consistent with earlier discussion, this is the organisational intuition described by Barney (2011). An alternative explanation is offered by Robson (2011) and Bryman (2012) as discussed in Chapter 3 (Survey questionnaires); that the question requires more thought in time available in interviews, and not in a survey. This validates their exploratory purpose.

There is limited evidence in interviews of recognition that growth may be generated through the extrinsic growth identified by Alinaghian and Razmdoos (2018), a problem identified by Acs *et al.* (2013). As growth is an essential driver of any enterprise, that it

happens may be more important to SMEs than how it is achieved, providing further evidence of a reliance on intuition rather than clinical, academic analysis.

The subjects which resonate with most interviewees are the levels of trust and reciprocity in their networks (Nysröm et al., 2017; Cavalcanti, and Giannitsarou, 2017). Several interviewees consider that the relationship is unequal and works against them which resonates with the ‘networkers’ and ‘switched off’ identified by Castells (2000) in Chapter 2 (Network governance). As set out in the Nvivo analysis (Chapter 4, Table 4.14) these aspects are associated with culture (Hsieh et al., 2018). Several interviewees refer to the risk of potential reputational damage, and its impact on them as a SME (Teece et al, 1997).

It is notable from the interviews that the most sensitive to reciprocity are professionals in the service sector. This resonates with the findings by Hernández-Carrión et al. (2019), that expectations differ between sectors.

Other matters

Comments are submitted to open invitations at the end of each section of the questionnaire which include one specific question arising from the studies by Bisignano and El-anis (2019), and Eng et al. (2020) in Chapter 2 (2.3.3) “*Should government policies towards SME internationalisation include those targeted to specific groups (e.g. on the grounds of gender, ethnicity, religion, age or other protective characteristics)? Please feel free to comment.*”

This achieves ten responses. The tone of the responses indicate that the majority consider that policies should be generically inclusive and without perceived bias in any direction. There is also a sense that the necessity of more policies is questionable and would only serve to increase bureaucracy. This exemplifies a problem for government. For example, the study by McAdam et al. (2019) calls for gender-based interventions. However, even with robust and indisputable evidence, government is likely to meet

resistance to any introduction of policies which are perceived to impose positive discrimination.

5.2 Overview of Strategy

The concentration on the outcome rather than the process indicates an intuitive approach to strategy highlighted by Mintzberg and Waters (1985). This is confirmed by the sense check model (Figure 4.3). It is apparent that in most cases what is considered as strategy creation, whether regular, formal, or otherwise, falls short of any academic definition.

This is not to suggest that there is an unwillingness to create strategy however the appropriate skills and tools may not be engaged in the process as discussed earlier (Chapter 4, Strategy). Due to the nature of the leadership, the facilitation for discussion may limit the ability to constructively challenge the assumed 'Expert power' observed by French and Raven (1969). If strategy creation is not embraced, it denies the DC of reacting to a volatile market (Eisenhardt and Martin, 2000), achieving a FSA (Almodóvar and Alan Rugman, 2015) and exposes organisational risk as identified by Teece (2007). However, in the real world of business the ability to find the reflective space for horizon scanning Teece (2007) is drowned out by the noise of firefighting. A problem which may be common to micro and macro environments.

The sense check model reveals a link between greater network participation and the involvement of external parties in strategy either formally or informally. While this is not a network benefit highlighted from the survey results, this additional resource is of evident value to some of the interviewees. In a few instances, the choice of external input changes and adapts to the strategy under consideration indicating a deliberation in its objective as envisaged by Huggins and Thompson, (2015). This reinforces the supportive benefits of informal networks discussed in section 5.2 above.

The survey evidences a strong link between reviewing international strategy and the value of networks to internationalisation, this is confirmed in interviews. That question only becomes relevant when internationalisation is the objective, not confinement to the domestic market. This approach helps to mitigate Almodóvar and Rugman's (2015) LoF discussed in Chapter 2, and cost (Vahlne and Johanson, 2013; Narayanan, 2015; Iturrioz *et al.*, 2015). Those who have or are about to commit to overseas territories have acquired a strategic mindset either internally or from outside which combines with the natural entrepreneurial ambition.

5.3 Overview of Internationalisation

The survey returns a lower presence or intention to commit to international markets than the research by Narayanan (2015) suggests. This may be due to the perceived barriers of bureaucracy, culture, cost, and risk. It is apparent that interviewee organisations, especially those which are micro, see little if any need to grow their business beyond the domestic market (Li, *et al.*, 2018).

In the largest range of employers (50-249) it may suggest that the Uppsala Model (Johanson and Vahlne, 1977) is adopted (consciously or not), in other organisations, it may be an aversion to risk (Zeafarian *et al.*, 2016).

The relatively low level of commitment to internationalisation will be of concern to policy makers as a constraint on growth (OECD, 2018). The activity and commitment indicated by the sense check model provides a varied and reasonably polarised picture between those enterprises who are risk adverse and feel unable to commit, and those who have the confidence and see a necessity to commit at a high level.

It is evident that local culture including language is not the barrier to internationalisation perceived by Zeafarian *et al.* (2016). A commitment to enter foreign markets is dependent on a SME's internal culture and the importance of the leadership has been drawn out in

earlier studies (Barney *et al.*, 2011; Gaganis *et al.*, 2019; Salder *et al.*, 2020) as discussed in Chapter 2 (SME culture).

Just as the decision to internationalise changes the approach to strategy creation, it perhaps marks a change in self-perception. A degree of resource awareness taken for granted in a domestic market, becomes an uncertain element in foreign territories. A SME psyche transforms to that of a large organisation in this respect as their market moves from micro to macro environments.

5.4 Overview of discussion

The mixed method approach to the research enables the deployment of (Greer *et al.*'s (1989) 'five justifications' (Chapter 3, Data collection). The building block process brings clarity to an initially confusing picture.

The findings evidence some strong NC recognition. It also exposes organisational practices which hold room for improvement. The reliance on entrepreneurial intuition is prevalent and limiting.

The polarisation of different organisational approaches and behaviours is perhaps exemplified by the two case studies which highlight two companies operating in similar sectors and markets while adopting different cultures, and attitudes towards their networks.

Any aversion to growth by internationalisation might be overcome through exploiting NC to acquire the knowledge and achieve the necessary confidence to commit. This can be stimulated, and it falls to government to lead any initiatives, supported by academia. It is evident that the existing forums are not working in this respect. The question arises about which forums are best, one which is surely best answered by SMEs themselves however, the range of enterprises, types, and eclectic leadership invokes Tzokas *et al.*'s (2015) observation in Chapter 2 (Knowledge Capital) "*Easy to say, hard to put into practice*".

New methods of engagement should be explored. The study reveals a tension between SMEs and the organisations or institutions trying to support them. It is appropriate to review those channels and adapt them to the new generation of entrepreneurs at grass root level. This may include harnessing the resources of FE the “*Cinderella*” of the academic sector (Masunga, 2013). Nowhere, in the literature reviewed was more than a passing mention for FE found. This is surprising; although FE does not offer the traditional business studies found in HE, the sector has leaned towards entrepreneurship in recent years and offers the potential to extend the educational reach of NC to a new audience, including through trade and apprenticeship programs.

5.5 Summary

The chapter begins with an exploration of the evidence on network types, the nature of the relationships formed, and whether they constitute more than those simply formed through business transactions. This is governed to an extent by the membership of the networks and the relationship expectation (see Chapter 2, Table 2.3).

This progresses to the evident difficulty of engagement with SMEs suggesting a structural misalignment in relations with business organisations, government, and academia. The suitability of existing arrangements to effectively connect are questioned.

The discussion identifies the added value of the interviews which clarify some of the inconclusive data provided through the questionnaire on matters including network benefits and strategy. SMEs are receptive to networks and their potential although they may not be able to exploit the benefits through their own limitations.

This raises the question of how to change the approach by those institutions positioned to assist SMEs in their endeavours, and whether the delivery of current approaches would benefit from revision.

Network Capital: How UK SMEs recognise its value in their international strategy?

The empirical findings raise many questions which are addressed in the final chapter which also sets out conclusions from the study and considers the implications for further study. Chapter 6 includes a proposed concept for SCA and CSA through the objective alignment of SMEs, academia, and government – the Actors.

Chapter 6 Conclusion

6.0 Introduction

This is the final chapter of the study which draws together the findings of the research, its contribution to academic thinking, and potential for further research.

6.01 Contents

- Research questions revisited
- Answer to research questions
- Implications
- Contributions
- Theoretical proposal
- Limitations
- Future research
- Summary

6.1 Research questions revisited

The question the study poses is '*Network Capital: how UK SMEs recognise its value to international strategy?*'

That question contains three elements,

- the value of the SME networks,
- the value of the network to their creation of strategy,
- the value of the network to their internationalisation.

The critical word for the researcher is ‘recognise’. The Intention is to understand the perspective of the SME operating in a real and live market rather than from an academic viewpoint.

6.2 Answer to research questions

This section examines the overall tone of the findings and highlights any exceptions.

Value of networks

There is good evidence that generally SMEs recognise value in their networks. However, its extent is not articulated either as value creation or dependence. It is couched in terms of general ‘business growth’ rather than specific network attributes. In many cases, the network is governed by BR (Almodóvar, and Rugman,2015) which fails to include the requisite reciprocity (Somhlahlo, Mbhele and Kunene, 2016).

Without the ability to identify which elements add extrinsic value (Alinaghian and Razmdoos, 2018), the potential for NC is inevitably constrained and fails to meet the requirements of Huggins and Thompson (2015). This raises the question of how to engage SMEs in the concept of NC?

Value of networks to strategy

On this aspect, the question requires dissection,

- do SMEs understand how to create strategy, and if so,
- do they value external input from their network?

The evidence is that strategy creation is a problem. There is a lack of understanding over,

- what is strategy,
- how is it created,
- who adds value to the process?

This fundamental requirement of good governance is neglected due to the leadership (Srisathan *et al.*, 2020) either not perceiving any value in the time invested, a matter of culture, or not having effective management skills or tools (Eisenhardt and Martin, 2000). In either case, this precludes the opportunity to exploit their network in this respect.

This is a concern raised by Teece (2007) and the question arises of how to engage SMEs in strategy?

Value of networks to internationalisation

Where SMEs internationalise, the data shows there is a step change in their appreciation on network value (Herbane, 2019), the need for strategy (Teece, 2007), and the involvement of their network (Ashourizadeh and Schott, 2016). The commitment required, and associated risk commands a deliberation. One which is regarded, perhaps, as superfluous to domestic market exploitation (Li, *et al.*, 2018) where entrepreneurial instinct suffices (Mintzberg and Waters, 1985).

The answer

The results reflect a minority of organisations achieving a combination of behaviours that can be identified as recognising the value of NC; the organisational and deliberate use of a resource to create value (Huggins and Thompson, 2015). For others who recognise value in their network, their responses are more symptomatic of an intuitive approach to that resource (Cabanelas *et al.*, 2013; Almodóvar and Rugman, 2015).

Therefore, it is the few and not the many who recognise the value of NC. The data provides evidence that SMEs who understand NC highly value their networks, others do not. The case studies reinforce this and illustrate the gulf between an organisation with high NC understanding, and one which depends on BR (Almodóvar and Rugman, 2015).

A further question which naturally arises from the discussion in Chapter 2; whether NC is a DC? The researcher concludes that in and of itself, it is not. However, it has an inherent potential to be through its ‘Cumulative Capability Capacity’ (researcher) discussed in Chapter 2 (Value creation: Network Capital).

This matters. The societal and economic contributions of SMEs (Iturrioz *et al.*, 2015; Schott and Cheraghi, 2015; Somlahlo *et al.*, 2016; Sanyal *et al.*, 2020) discussed in Chapter 1 (SMEs and the macro-economic context), need to be exploited to maximise their potential which in turn, contributes to the elusive gain in productivity per capita (Sidhu *et al.*, 2015). This can only be achieved by creating extrinsic value (Alinaghian and Razmdoost, 2018).

6.3 Implications

The questions posed above are interlinked; should SMEs understand NC before strategy creation or vice versa? It matters not if they coalesce.

How is this achieved? The polarised opinions on the UK government and academia indicate that the current methods and forums for delivery are not achieving the success for which they strive as is the case in Finland and Sweden (Oparaocha, 2015). In which case, a different approach is required.

The researcher considers the identity by Huggins and Thompson (2015) of a need for shared language is key to any solution. The concept of NC is nebulous to those outside academia (and arguably within it), and without any metrics to convey value, why would a SME engage with it? That language extends to learning delivery, and appropriate forums as discussed in Chapter 5. As the researcher discovers, SMEs do engage; it is within their entrepreneurial nature, in their SC (Huggins and Thompson, 2015).

How that is achieved is beyond the scope of this study. The catalyst for change lies with academia who can advise governments on potential delivery models which may include

Business Angels, SME mentors, and education through secondary schools and FE. That is not to take away the role of HE, it is to bolster the pool of educational resources and delivery methods suggested as necessary by Teece (2007).

If NC can be harnessed to provide more organisations with a FCA, this will improve the economic performance of the UK and simultaneously create a CSA. This paradigm involves all Actors. Almodóvar and Rugman (2015) hold out this possibility as discussed in Chapter 2 (Part Two) however they do not lay out a path from FSA to CSA, a matter which is addressed below.

6.4 Contributions

This section considers the contribution of the study to academic and wider audiences.

Theoretical

As discussed in Chapter 2 (Part Three) previous studies have progressed academic understanding of NC and its value to organisations. However, there has been no empirical evidence of the extent of that understanding by organisations themselves, especially those who are likely to derive most value and who typically are resource constrained; SMEs (Davidsson *et al.*, 2017). This study addresses that gap by placing SMEs at its heart. This study adds their voice to understanding the practical application of NC.

In Chapter 3 (Data required) the distinction is drawn between soft and hard data. Both types are harvested in this study adding primary and empirical evidence from active SMEs. The research design enables the data and findings to be cross-checked, and any anomalies identified for further investigation.

In the absence of any existing metric and reliable hard data, the employment of the mixed method exploits a combination of interrogations which ensure saturation. The reliance on qualitative observations is inevitable when hard data is not available. Quantitative

analysis will only be possible if a robust metric is established allowing comparison across individual organisations, sectors, and geographical regions.

Practical

Another aim of this study is to establish a basis for promoting NC as an accessible management tool for SMEs. It is understood and apparent that many entrepreneurs do not see value in business techniques or models preferring to have confidence in their own abilities. However, in addition to those entrepreneurs who do seek guidance, cohorts of business school students progress to starting their own enterprises and their academic curiosity will seek emerging concepts. This resonates with Tecce's call (2007) for business schools to diversify in their teaching methods.

If the concept of NC converts to a recognised practical application through business studies, its benefits will distil through to the real world of business. This study adds evidence of the real benefits of NC in practice.

Policy

Any impact on government policy is dependent on whether academia embraces the potential of NC at local, regional, or national levels. The extant frustration of delivering effective and targeted policies identified by Oparaocha (2015) requires a radical solution which may not be easy to foster in Whitehall⁵. Therefore, any initiative may best flourish at local level as proposed by Lawton Smith *et al.* (2012). This study adds clarity as to what SMEs want from their networks.

⁵ Whitehall is the general term for the historic seat of the national civil service.

6.5 Theoretical proposition

A natural progression of this study is to explore the potential value of the research by considering governmental challenges, the importance of SMEs in meeting their objectives, and the role of academia. This section proposes a framework for a shared understanding of the value of NC and the aligned objectives of government, SMEs, and academia – the Actors – into an effective strategic network with which to provide the UK with a dynamic and sustainable SCA in the global context.

The proposition draws on the theories discussed in Chapter 2 and summarised in Table 6.1.

Table 6.1: Contributing theories

Author	Contribution
Barney (1991)	SCA
Teece <i>et al.</i> (1997)	DC
Huggins and Johnston (2010)	NC
Alinaghian and Razmdoost (2018)	Extrinsic value
Almodóvar and Rugman (2015)	Link FSA and CSA
Cabanelas <i>et al.</i> (2013)	Alignment of shared values
Huggins and Thompson (2015)	Need for shared language
Junfeng and Wei-ping (2017)	Network power
Narayanan, (2015)	Importance of mutual trust
Rangus and Slavec (2017)	Network alignment and trust
Ripollés and Blesa (2019)	Alignment of cultures
Sidhu <i>et al.</i> (2015)	Alignment of academia, government, and SMEs

These theories are linked by the researcher's terms of Value Progression and Cumulative Capability Capacity. The objective remains SCA (Barney, 1991) harnessed by CSA as envisaged by Almodóvar and Rugman (2015) to create the National Capital of Sidhu *et al.* (2015). Sidhu *et al.* (2015) also identify the Actors and their mutual requirements of, and benefits to, each other. That alignment can only occur when the conditions are met of; an accommodating culture (Ripollés and Blesa, 2019); trust (Narayanan, 2015; Rangus and Slavec, 2017); shared values (Cabanelas *et al.*, 2013); and common language (Huggins and Thompson, 2015).

The prize is NC (Huggins and Jonhnston, 2010) driven by DC (Teece *et al.*, 1997) creating network power (Junfeng and Wei-ping, 2017) and extrinsic value (Alinaghian and Razmdoost, 2018). From micro to macro, from internal culture to societal, FSA progresses to CSA.

Existing Relationships: The objectives of the Actors

The objectives of the Actors in their own and shared spheres include the common need for VRIN and SCA. At macro level, governments compete on a global platform on behalf of their electorate and pursue policies shaped by their political beliefs with the objective of achieving the capacity to sustain continuity in economic growth through successive generations (Cavacanti and Giannitsarou, 2015) and which is reliant on SME growth (Oparaocha, 2015). The political nature of their institution necessitates their relationships to be formal in their international networks and with the other Actors.

Academia harbours its own international ambitions. Organisations are defined by their reputational VRIN established by a recognised and peer respected expertise in a field of specialist study. As with the other Actors, they compete in the 'Red Ocean' (Kim and Mauborgne, 2005) of the education business for grant funding by governments and business organisations which will only be awarded for research perceived to add value. As the funding model for students has become self-reliant, the traditional 'Red Brick' universities can no longer depend on their established reputation alone; their ability to attract students and teaching staff is reflected and judged by their approach to the business of education on an international stage. They may be ranked by their ability to add to the earning capability of their alumni, capacity for ground-breaking research, or diversity of teaching methods.

Educational establishments are an essential part of the infrastructure of entrepreneurial incubation and innovation (Lee *et al.*, 2016). Therefore, academic organisations blend formal and business links with the other Actors.

The driver of SMEs is to grow. However, this is seldom achieved alone; when Dr. John Pemberton invented a unique soda drink in 1886, he may have grasped the local demand however, it was Asa Griggs Candler who had the vision that began the journey of a product that is now universally known as Coca-Cola. The ability of a SME to replicate this success is greatly enhanced through the level of participation in a network which itself aspires to the same vision and is culturally aligned to create a VRIN (Iturrioz *et al.*, 2015). How SMEs perceive the potential value of the other Actors in achieving their ambitions is revealed in this study.

The objectives of the individual Actors will be reflected by their respective priorities. For local or national government and policy makers, success may be regarded as the creation of jobs or inward investment and, therefore, value to society (Jordão and Novas, 2017). Academics may choose to concentrate on the contribution to understanding NC and the extent to which its impact may qualify as a VRIN, or how a network's value to the market can be quantified. SMEs, for whom the investment in networks is real, balanced with opportunity cost and risk, the reward will typically be gauged financially either through profit, shared values, or both.

Existing Relationships: How the Actors interrelate

The theory of NC highlights the value of relationships and culture. The picture presented is of governmental and SME networks operating differently with a gap appearing between that which the former seeks to achieve (Ashourizadeh and Schott, 2016), and the support required by the latter. The Actors have their individual networks formed deliberately or intuitively and are linked both through geography and shared interests in organisational and the National Capital (Sidhu *et al.*, 2015) referred to in Chapter 1. However, governments necessarily concentrate on institutional networks while those of SMEs are SC based (Oparaocha, 2015).

The nature of those links can be described as a mix of formal and informal. The UK government has a regulatory relationship with the other Actors whereas the academic

Network Capital: How UK SMEs recognise its value in their international strategy?

institutions engage in a blend of formal and informal relationships. While that creates a link between them, the Actors inevitably operate in their individual networks in pursuit on their own objectives. This resonates with the organic and corona like patterns which emerges from research on Australian Venture Capital firms conducted by Siddiqui *et al.*, (2016).

Therefore, the Actors have their own incongruent networks illustrated below in Figure 6.1 which constrain the creation of extrinsic value promoted by Alinaghian and Razmdoost (2018).

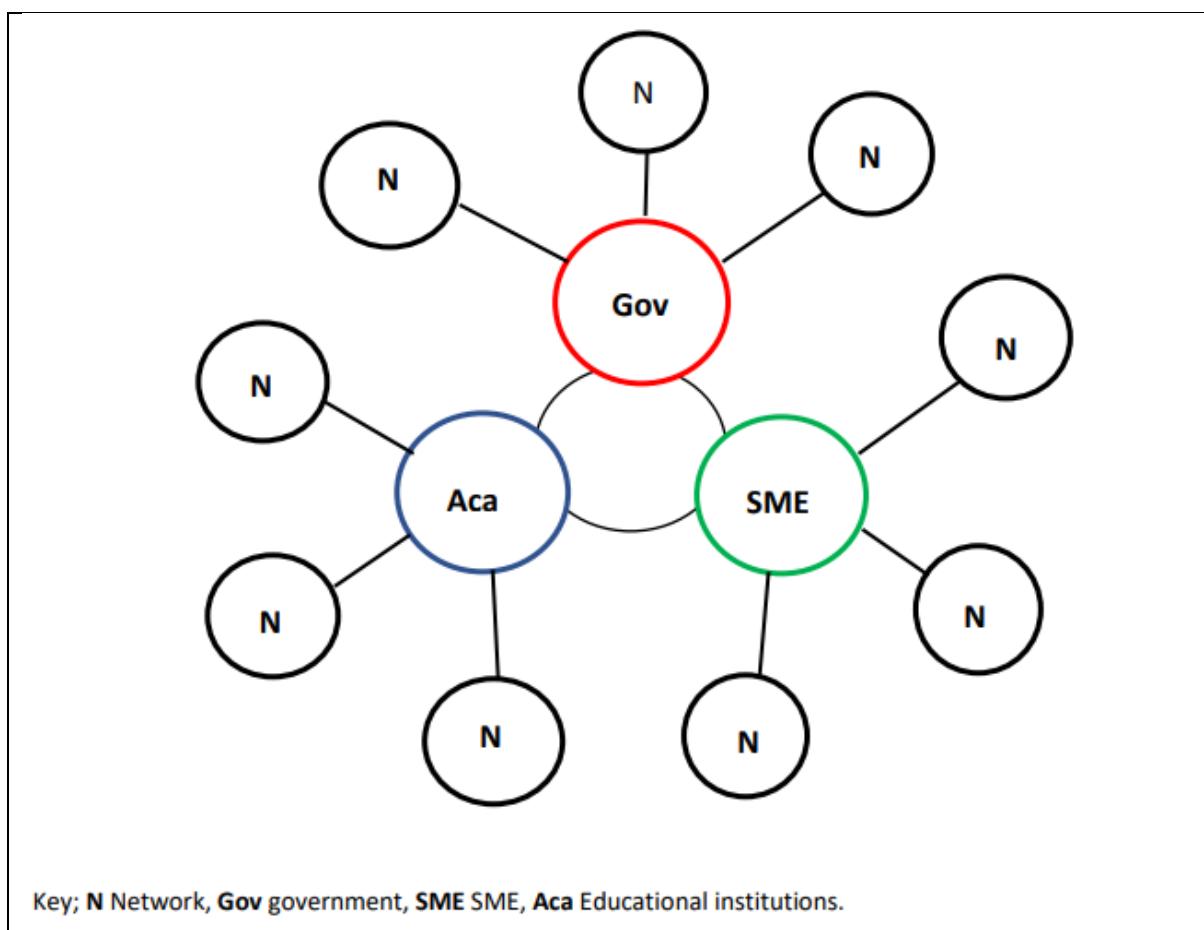


Figure 6.1: Linked networks (adapted from Siddiqui *et al.*, (2016)

Extrinsic value can be realised if the links between the Actors can be harmonised and meshed into a strategically aligned network by increasing productivity, innovation, and growth. This extends the mesh of networks, strategy, and internationalisation illustrated in the figures throughout Chapter 2.

Potential relationship; From FSA to CSA; A proposed framework for mutual value

The Actors are within networks which compromise the ability to exploit their individual and shared objectives in a continually changing environment (Vahlne and Johanson, 2013). To create extrinsic value does not require more policies, just effective and continual alignment (Teece, 2007, 2012; Kale and Başar, 2018) or as Huggins and Thompson (2015) quote from Romer (2007,128) “*better recipes, not just more cooking*”. This reinforces the requirements of effective networks highlighted by Lawton Smith *et al.* (2012) and Roy (2012) in Chapter 1 (SMEs and the UK government). The comment by Huggins and Thompson resonates with the findings of this research.

Networks are at their most effective when aligned with internationalisation (Salder *et al.*, 2020), and strategy (Chapter2, figure 2.10). That concept can be replicated in a macro context and achieve the transition from FSA to CSA. There exists the opportunity for the UK government to harness the entrepreneurial and innovative agility within its territory. This requires an alignment of the Actors’ objectives into a single effective network the strength of which will be defined by its shared language, values, and culture. In their study based on Singapore, Sidhu *et al.* (2015) suggest that the key to this paradigm lies with coordinating information and communication. New recipes require an element of internal destruction (Teece, 2007, 2014) not just rebranding old ones. Therefore, rather than the ‘Cool Britannia’ branding approach adopted by the government in 1997⁶ (coincidentally the year the concept of DC was introduced by Teece *et al.*), the researcher proposes a framework to capture that essential alignment to create a network both institutionally, and organisationally legitimised (Nystöm *et al.*, 2017). This approach also requires a redefinition of the links between the Actors.

In his paper of 2014 on entrepreneurial DCs and MNEs, Teece proposed a “*logical structure of the dynamic capability paradigm*”. This envisages the simultaneous building

⁶ Cool Britannia was a government celebration to showcase ‘Britpop’, fashion, and other cultural successes

Network Capital: How UK SMEs recognise its value in their international strategy?

of DCs and VRIN to combine into a strategy which creates a competitive advantage. Capturing the same objectives individually, the framework in Figure 6.2 builds an aligned strategic network between the Actors to create a “*paradigm of perpetual Network Capital congruence*”.

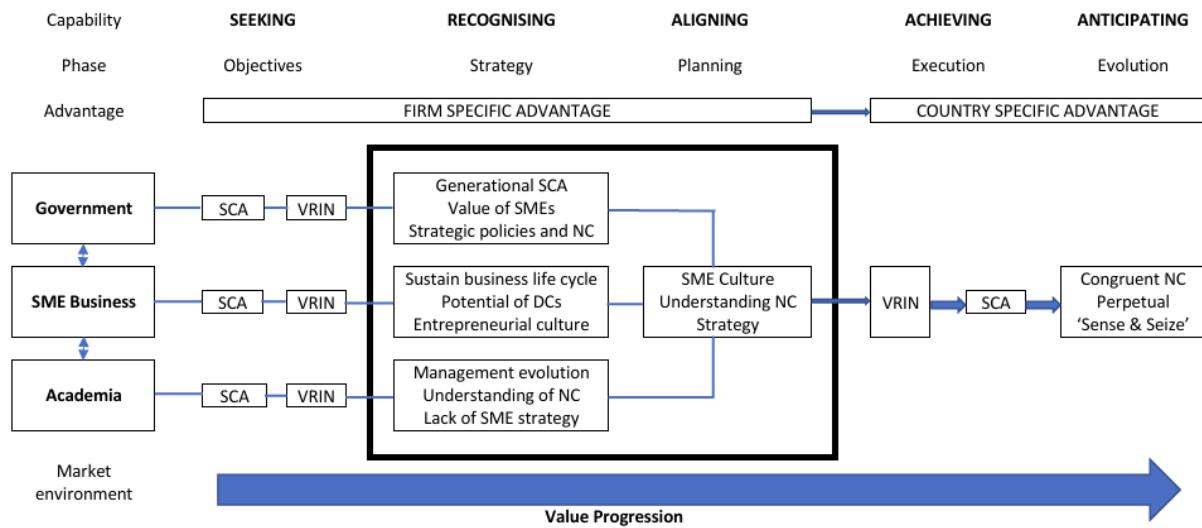


Figure 6.2: The paradigm of Perpetual Network Capital congruence (researcher's proposition)

This ambition can only be realised if the value of networks and NC is recognised and shared by both government and SMEs. The creation of a shared network requires a process with the deliberate intent of deploying capabilities in sequential phases, a process which is continual and agile within the context of an unstable market environment. It is not argued that NC alone will constitute a VRIN however, there is evidence that it is an important component which can be exploited with effective Actor alignment being pivotal in the process (Hânell *et al.*, 2018).

In Chapter 1, the constitutional constraints on governance are discussed. The proposed paradigm is only possible if successive governments recognise, embrace, harness, and enhance the value of NC. This is not to cross the boundary of handing down policy advice, it is a philosophical reflection on the challenge the Actors face in achieving alignment.

6.6 Research limitations

The full potential of the survey is frustrated and the data harvested only through dogged persistence over 18 months.

The approach to invoke the network of business organisations and government bodies in the distribution of the questionnaire survey failed despite persistent attempts from different angles. Feedback from the few respondents achieved cite reasons for non-cooperation being; membership confidentiality (Business organisations); reply with standard policy statements (Government); or lack of resources (Business organisations). It is worthy of note that the very organisations whose existence depends on effective communication and engagement, are not the least curious about this study or what it might mean for their interests.

Further attempts to gain support through local business journalists and overtly active business leaders in the less central areas of the UK by direct approach also failed. Campaigns launched through Linkedin attract attention and 'likes' but yield very limited success.

The researcher wishes to follow up with respondents who claim no network involvement as this would inform the study from a different perspective. This has not been successful and remains an area for future exploration.

The relief of overcoming the challenge of securing interviewees is replaced by an anxiety to maximise each opportunity offered. The researcher's technique improves as the work progresses however the challenge remains of maintaining the interviewee's focus on the question being asked. The most rewarding participants provide valuable insights, were generous with their time, offer further access if required, and demonstrate curiosity in the subject and the study.

The study is conducted over a period including the Covid-19 pandemic. Challenges include: administrative difficulties in clearing the university's Ethics Committee; barriers raised by a gatekeeper mentality; and managing a business through an existential threat resulting from the lockdown periods imposed during the pandemic. The unexpected nature of the pandemic inevitably affected the researcher's ability to engage with some bodies whose employees were placed on furlough. The lockdown also prevented any physical collegiate interaction at the university campus.

Facing these challenges, the researcher employs the use of case studies, originally intended to be optional, to ensure sufficient data is harvested. The level of responses to the survey in some regions is insufficient to draw robust conclusions however, similar enough to enable thematic tendencies which are confirmed through interview narrative.

6.7 Future research

Areas for future research may include,

- SME engagement: what is the best forum to attract their attention,
- metrics: a method for measurement of NC,
- NC awareness by,
 - different regions,
 - different sectors,
- NC awareness in large business organisations,
- networks and regional performance,
- comparison of network use between SMEs and MNEs.

6.8 Conclusion

The study is deconstructed to its essential elements and focusses on one word which qualifies the answer to its question. It is concluded that a minority of SMEs have high NC, and that to enhance economic and societal value, this needs to be extended.

The study contributes to existing academic knowledge and provides primary and empirical evidence for future use. If appropriate methods of engagement and delivery can be found, the value of networks and their potential for NC will become a routine capability within SME resources.

This harbours implications for, and requirements of, business organisations, academic institutions, and government about their respective capabilities and whether they meet the requirements of a dynamic economy. The researcher proposes a concept which contributes a different approach to combine FSA with CSA and create a national SCA.

The limitations of the research, its challenges, and areas for future research are set out before the study concludes that NC awareness is present among SMEs. For the majority, it is intuitively inculcated in the organisation's entrepreneurial psychology and SC. For a minority there is a high awareness and a deliberate exploitation. For a few, there is no awareness. There exists the unrealised potential to release the value of NC for business organisations and the national economy.

The study connects micro to macro with the underlying influence of culture organisationally, politically, economically, and societally. That culture determines the nature of relationships. It does not affect the 'who', 'where', 'what', 'when' or 'why', it does affect the 'how' and therefore, Network Capital.

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Appendix 1
Questionnaire

Network Capital V1

In considering your answers you may wish to understand the definitions used in this study to assist consistency.

Network: Relations with other organisations to gain access to knowledge to enhance expected economic returns.

Internationalisation: A position that a firm intentionally establishes and sustains trade or commerce (including e-commerce) in a non-domestic market.

Global: Having a recognisable presence either physically or as a brand in all recognised international regions.

Strategy: A coherent set of analyses, concepts, policies, arguments, and actions that respond to a high-stakes challenge.

Thank you.

The first three letters of your street address

The last three digits of your phone number

In which UK region is your principal business based (Please tick one)

- Scotland
- Northern Ireland
- Wales
- North-east England
- North-west England
- Yorkshire and the Humber
- West Midlands
- East Midlands
- South-west England
- South-east England
- East of England
- Greater London

Please select your organisation's type of ownership and size (Full and part-time employees). Please tick one box only.

0-9 Employees

10-49 Employees

50-249 Employees

Sole proprietor

Family (Including extended family)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limited Company/LLP/Partnership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please select your organisation's turnover for the last financial year?

- Less than £40 million
- More than £40 million

In which sector would your sector mostly fall under? (Please tick one box only)

- EXTRACTIVE** - Farming, fishing, timber, mining
- TRANSFORMATIVE** - Manufacturing, construction, utilities
- DISTRIBUTIVE** - Professional services, hotel & leisure, transport & distribution, healthcare, entertainment, communication, wholesale, retail
- PRODUCER** - Banking, insurance, real estate, legal, accounting, engineering, business
- SOCIAL** - Government, medical, healthcare, education, charities, welfare
- PERSONAL** - Hotel, eating & drinking, beauty, laundry, repair, barber, domestic services
- OTHER/NOT SURE (please specify)**

OTHER/NOT SURE (please specify)...comment

Please add or comment on any of your answers in this section if you wish.

How do you agree/disagree the following statements?

Network Capital: How UK SMEs recognise its value in their international strategy?

	Strongly Disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree
Networks are essential to the growth of our business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Trust among our organisation's network members is essential	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Our organisation values Corporate Social Responsibility (CSR)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A high level of CSR within our organisation's network is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adherence to CSR adds value to our business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How important are your networks to achieving these benefits to your organisation (Please tick one choice for each benefit)

	Not at all important	Slightly important	Moderately important	Very important	Extremely important
Market credibility	<input type="radio"/>				
Access to additional resources	<input type="radio"/>				
Access to market knowledge	<input type="radio"/>				
Access to innovation	<input type="radio"/>				
Access to international markets	<input type="radio"/>				
Help form strategy	<input type="radio"/>				
Providing mutual resilience	<input type="radio"/>				

Please add or comment on any of your answers in this section if you wish.

How soon after the creation of your organisation did you (or intend to) establish a position in a

non-domestic market? (Please tick one box)

- On formation
- In less than one year
- Between one and five years
- More than five years
- No timescale set
- We do not intend to internationalise

On a scale of 1 - 5 (one being easy, five very difficult) please rate the barriers you encountered/expect on entry to a non-domestic market?

	1	2	3	4	5
Local regulation	<input type="radio"/>				
Language	<input type="radio"/>				
Local national culture	<input type="radio"/>				
Credit terms	<input type="radio"/>				
Logistics	<input type="radio"/>				

How do you agree/disagree the following statements about your organisation?

	Not applicable	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Our organisation regularly reviews its international strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Networks are core to our organisation's international strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Large corporations help us deliver our organisation's strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Government helps to deliver our organisation's strategy

Academic institutions help to deliver our organisation's strategy

Should government policies towards SME internationalisation include those targeted to specific groups (eg on the grounds of gender, ethnicity, religion, age or other protective characteristics)?
Please feel free to comment.

Please add or comment on any of your answers in this section if you wish.

Many thanks for your help. If you would be willing to participate in a short interview, please leave your contact details below.

Name

Email

Telephone

Appendix 2

Interview questions

Introduction

Please can I confirm that you are happy for me to record this interview a transcript of which I forward to you for any subsequent comments you may wish to make or correct. I wish to assure you of complete anonymity and that no data I stored on any shared drive. Please feel free to terminate this interview at any time and request that any associated material is destroyed if you so wish. I repeat my offer to sign a non-disclosure agreement if you require.

The purpose of this interview is to explore how your organisation entered non-domestic markets, your strategy, and use of external agents. The interview is split into three sections covering networks, strategy, and internationalisation.

1. Networks

- a. Which type of networks suit your business – formal & informal?
 - i. Why?
- b. How do you use your networks?
 - i. What do you want to achieve from them?
- c. How do you decide who to involve in your network?
 - i. Is their location important?
- d. When do you decide to form or leave a network?
- e. How valuable are your networks to the performance of your business?
- f. Which aspects provide you with the highest value?

2. Strategy

- a. How much time do you devote to making strategy?
 - i. How do you do it – formally or informally?
- b. Do your networks form part of your strategic thinking?
- c. Do you involve networks in your strategy thinking?
 - i. All or a select few?

3. Internationalisation

- a. When did you decide to internationalise?
- b. What was your strategy?
- c. What were the options available to you to execute your strategy?
- d. How did you achieve entry into those markets?
- e. What barriers did you encounter?
 - i. How did you overcome those barriers?
- f. Did you seek help from any external agencies?
- g. How valuable was their input?
- h. What would you have done differently?

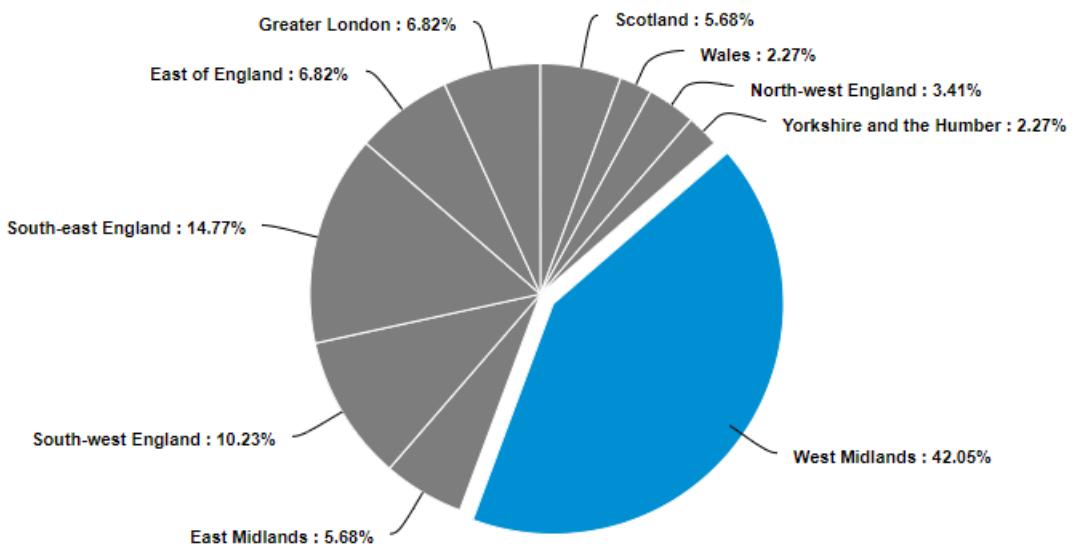
Thank you for your time.

Appendix 3

Survey responses

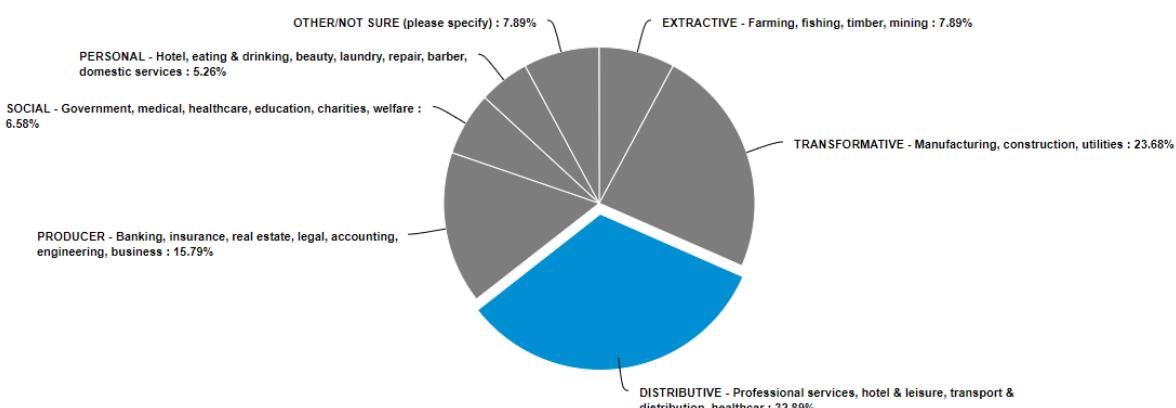
Summary

231	102	83	81.37%	19	20 min
Viewed	Total Responses	Completed	Completion Rate	Dropouts	Average Time



Statement	0-9 Employees	10-49 Employees	50-249 Employees	Overall
Sole proprietor	14 63.64%	8 36.36%	0 0%	22 n = 22
Family (Including extended family)	9 60%	4 26.67%	2 13.33%	15 n = 15
Limited Company/LLP/Partnership	35 54.69%	15 23.44%	14 21.88%	64 n = 64

Min Max



Network Capital: How UK SMEs recognise its value in their international strategy?

How do you agree/disagree the following statements?

☰ ↻ ↽ ↴ ↴ ↴

Statement	Strongly Disagree	Somewhat disagree	Neither disagree or agree	Somewhat agree	Strongly agree	Overall
Networks are essential to the growth of our business	5 6.17%	4 4.94%	6 7.41%	27 33.33%	39 48.15%	81 n = 81
Trust among our organisation's network members is essential	5 6.25%	2 2.5%	7 8.75%	17 21.25%	49 61.25%	80 n = 80
Our organisation values Corporate Social Responsibility (CSR)	4 5%	5 6.25%	24 30%	25 31.25%	22 27.5%	80 n = 80
A high level of CSR within our organisation's network is important	4 5.06%	7 8.86%	29 36.71%	22 27.85%	17 21.52%	79 n = 79
Adherence to CSR adds value to our business	4 5%	10 12.5%	27 33.75%	22 27.5%	17 21.25%	80 n = 80

Min Max

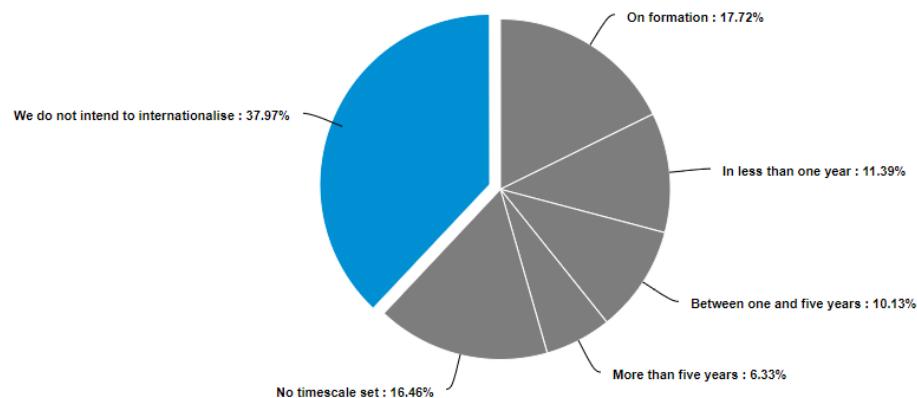
How important are your networks to achieving these benefits to your organisation (Please tick one choice for each benefit)

☰ ↻ ↽ ↴ ↴ ↴

Statement	Not at all important	Slightly important	Moderately important	Very important	Extremely important	Overall
Market credibility	7 8.64%	7 8.64%	6 7.41%	31 38.27%	30 37.04%	81 n = 81
Access to additional resources	7 8.75%	17 21.25%	18 22.5%	24 30%	14 17.5%	80 n = 80
Access to market knowledge	4 4.94%	7 8.64%	14 17.28%	35 43.21%	21 25.93%	81 n = 81
Access to innovation	5 6.25%	13 16.25%	27 33.75%	24 30%	11 13.75%	80 n = 80
Access to international markets	31 38.75%	11 13.75%	11 13.75%	19 23.75%	8 10%	80 n = 80
Help form strategy	16 20%	14 17.5%	22 27.5%	18 22.5%	10 12.5%	80 n = 80
Providing mutual resilience	14 17.72%	9 11.39%	34 43.04%	12 15.19%	10 12.66%	79 n = 79

Min Max

How soon after the creation of your organisation did you (or intend to) establish a position in a non-domestic market? (Please tick one box)



Network Capital: How UK SMEs recognise its value in their international strategy?

On a scale of 1 - 5 (one being easy, five very difficult) please rate the barriers you encountered/expect on entry to a non-domestic market?

Min Max

Statement	1	2	3	4	5	Overall
Local regulation	6 10.53%	10 17.54%	14 24.56%	19 33.33%	8 14.04%	57 n = 57
Language	14 25%	15 26.79%	10 17.06%	11 19.64%	6 10.71%	56 n = 56
Local national culture	11 20%	11 20%	21 38.18%	6 10.91%	6 10.91%	55 n = 55
Credit terms	11 20%	11 20%	20 36.36%	6 10.91%	7 12.73%	55 n = 55
Logistics	7 12.28%	11 19.3%	22 38.6%	11 19.3%	6 10.53%	57 n = 57

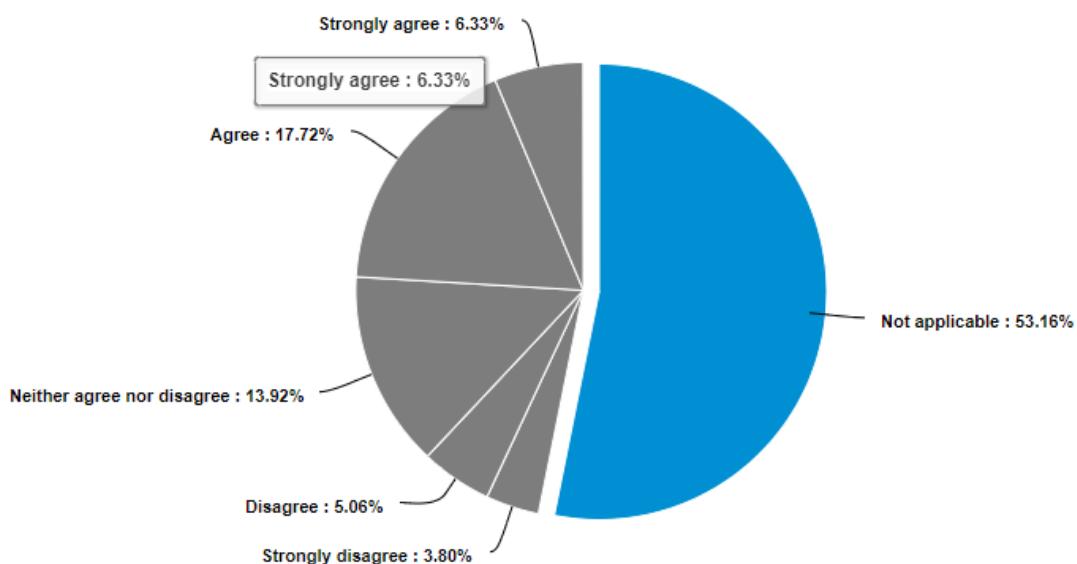
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How do you agree/disagree the following statements about your organisation?

Min Max

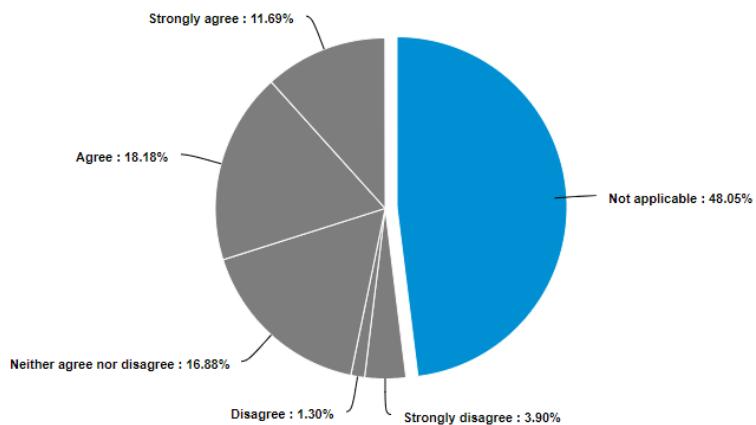
Statement	Not applicable	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Overall
Our organisation regularly reviews its international strategy	42 53.16%	3 3.8%	4 5.06%	11 13.92%	14 17.72%	5 6.33%	79 n = 79
Networks are core to our organisation's international strategy	37 48.05%	3 3.9%	1 1.3%	13 16.88%	14 18.18%	9 11.69%	77 n = 77
Large corporations help us deliver our organisation's strategy	28 35.9%	9 11.54%	13 16.67%	16 20.51%	9 11.54%	3 3.85%	78 n = 78
Government helps to deliver our organisation's strategy	25 32.05%	14 17.95%	15 19.23%	10 12.82%	13 16.67%	1 1.28%	78 n = 78
Academic institutions help to deliver our organisation's strategy	30 37.9%	9 11.39%	17 21.52%	14 17.72%	8 10.13%	1 1.27%	79 n = 79

Min Max

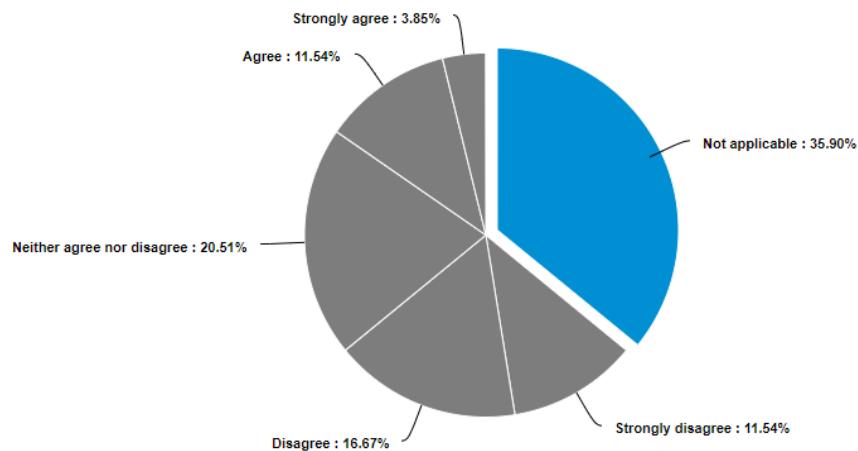


Network Capital: How UK SMEs recognise its value in their international strategy?

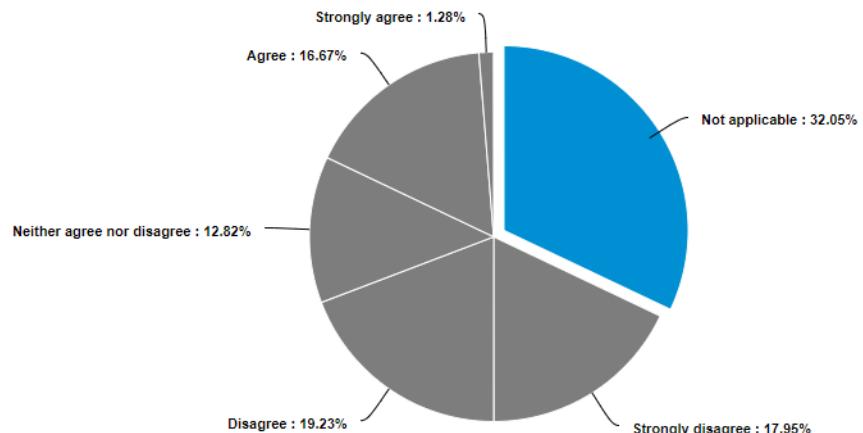
Networks are core to our organisation's international strategy



Large corporations help us deliver our organisation's strategy

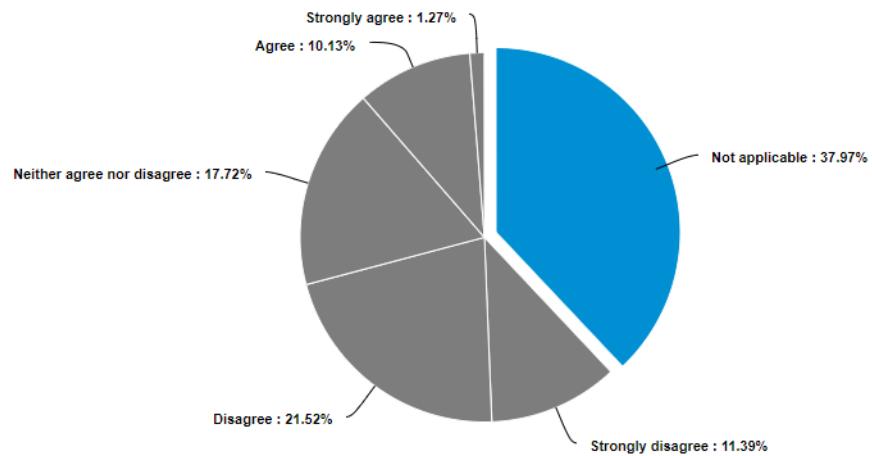


Government helps to deliver our organisation's strategy



Network Capital: How UK SMEs recognise its value in their international strategy?

Academic institutions help to deliver our organisation's strategy



Appendix 4

Questionnaire data

Res	Networks & Growth					Internationalisation					N&G	INT
	-2	-1	0	1	2	F	1	1-5	NT	NA		
Total	4	5	6	28	38	15	7	8	19	28	X	Y
2				1					1		1	0.25
3				1		1					1	1
4			1							1	0.5	0
5				1		1					1	1
6				1		1					0.75	1
7				1			1				1	0.5
8		1								1	0.25	0
9	1									1	0	0
10				1				1			1	0.25
11	1							1			0	0.25
12			1					1			0.75	0.25
13				1				1			1	0.24
14			1					1			0.75	0.5
15				1				1			1	0.25
16				1		1					0.75	1
19			1					1			0.75	0.25
22			1			1					0.75	1
23			1				1				0.75	0.5
24			1					1			0.75	0.25
25				1				1			1	0.25
26			1			1					1	0.75
27				1					1		1	0
28			1				1				0.75	0.75
29			1						1		0.75	0
30				1					1		1	0
31			1						1		0.75	0
32			1						1		0.75	0
33				1			1				1	0.5
34			1			1					1	1
35				1					1		1	0
36		1						1			0.5	0.5
37				1		1					1	1
38			1				1				1	0.75
39				1					1		1	0
40		1							1		0.25	0
41			1						1		0.5	0.25
42				1						1	1	0
43				1						1	0.75	0
44				1			1				1	1
45				1						1	0.75	0
46			1								1	0.75
47				1				1			1	0.25
48			1			1					1	1
49				1					1		0.75	0
50				1				1			1	0.25
51		1					1				0.5	0.75
52			1						1		0.75	0
53				1				1			1	0.5
54		1				1					0.5	1
55			1						1		0.75	0.25
56			1						1		0.75	0.25
57				1					1		1	0
58				1					1		1	0
59			1				1				0.75	0.75
60				1		1					1	1
63			1			1					1	1
64				1					1		1	0
65				1				1			1	0.25
66				1				1			1	0.5
67				1					1		0.75	0
68			1						1		0.75	0
71	1								1		0	0.25
73		1									0.25	0
74		1							1		0.25	0.25
75			1							1	0.5	0
77				1						1	1	0
78				1					1		1	0.25
79		1								1	0.25	0
80				1						1	0.75	0
81				1						1	1	0
82				1					1		0.75	0.25
85				1						1	1	0
86	1										0	0
87			1								0.75	0
88			1								0.75	0
89				1		1					1	1
91			1			1					0.75	1
92				1		1					1	1
93				1				1			1	0.5
98			1				1				0.75	0.75
101			1			1					0.75	1

Appendix 5

Interview data

NETWORK		STRATEGY		INTERNATIONALISATION		Score		Rate	
Participation	Organisational	Activity	External input	Activity	Commitment	Network	Internat.	Total	
0.25	0.5	0.5	0.5	0.25	0.25	0.75	0.5	3.5	58%
0.25	0.25	0.25	0	0.5	0.25	0.5	0.75	1.5	25%
1	1	0.75	0.25	0	0	2	0	3	50%
1	0.75	0.5	0	0.25	0	1.75	0.25	2.5	42%
0.5	1	0.75	0.5	1	1	1.5	2	4.75	79%
1	1	1	0.75	0.75	0.5	2	1.25	5	83%
1	1	0.75	0.25	0.25	0	2	0.25	3.25	54%
1	1	0.5	0	1	1	2	2	4.5	75%
0.25	0.25	0	0	0	0	0.5	0	0.5	8%
0.5	0.25	0.25	0.25	0	0	0.75	0	1.25	21%
1	0.25	1	1	0.5	0.25	1.25	0.75	4	67%
1	1	0.75	0.75	0	0	2	0	3.5	58%
1	1	1	0.5	1	1	2	2	5.5	92%
1	0.25	1	0.75	0.5	0.25	1.25	0.75	3.75	63%
0.25	0.25	0	0	0	0	0.5	0	0.5	8%
1	1	1	1	1	1	2	2	6	100%
0.25	0	0	0	0	0	0.25	0	0.25	4%
0.5	0.25	1	0.25	0	0	0.75	0	2	33%
0	0.25	0.75	0.75	1	1	0.25	2	3.75	63%
1	0.25	1	1	0	0	1.25	0	3.25	54%
0.25	0	0	0	0	0	0.25	0	0.25	4%
0.25	0.25	0.25	0.5	0	0	0.5	0	1.25	21%
1	1	0.25	0.25	0.75	0.25	2	1	3.5	58%
0.25	0	0.5	0.5	0	0	0.25	0	1.25	21%
15.5	12.75	13.75	9.75	8.75	6.75	28.25	15.5	68.5	
65%	53%	57%	41%	36%	28%	118%	65%	285%	

Appendix 6

Nvivo node analysis

Set	Node	Files	Reference	Rating
Network	Formal	13	13	52%
	Informal	12	12	48%
Membership	Academia	9	9	36%
	Client	5	5	20%
	Competitor	5	5	20%
	Complementary	3	3	12%
	Corporate	4	4	16%
	Finance	4	4	16%
	Government & LA	12	12	48%
	Logistics	2	2	8%
	Professional	8	8	32%
	Supplier	4	4	16%
Participation	Frequent	5	5	20%
	Infrequent	1	1	4%
	Organisational	5	5	20%
Benefits	Business Development	12	12	48%
	Collaboration	6	7	24%
	Credibility	7	7	28%
	Funding	2	2	8%
	Knowledge	13	14	52%
	Innovation	3	3	12%
	International Bureaucracy	1	1	4%
	Political Voice	4	4	16%
	Reciprocity	5	5	20%
	Research	2	2	8%
	Resilience	3	3	12%
	Resource	2	2	8%
	Bureaucracy	8	8	32%
	Corruption	3	3	12%
	Cost	5	5	20%
International Barriers	Culture	8	9	32%
	FOREX	3	3	12%
	Language	3	3	12%
	Logistics & Freight	2	2	8%
	Qualifications	1	1	4%
	Regulations	4	4	16%
	Risk	2	2	8%
	Skillset	1	1	4%
	Tax	3	3	12%
	Time Zone	3	3	12%
	UK Government	1	1	4%
	Conflict of Interest	1	1	4%
	Knowleage Leakage	1	1	4%
Risk	Investment	1	1	4%
	Reputation	7	7	28%
	Trust	6	6	24%
	Zero Reciprocity	3	3	12%
	Agent	2	2	8%
	Territorial	6	6	24%
Strategy	Formal and planned	14	14	56%
	Informal and occasional	6	6	24%
	None	1	1	4%
Strategy Input	Customer	1	1	4%
	Employee	3	4	12%
	External	5	5	20%
	Government	1	1	4%
	Network	1	1	4%
	None	1	1	4%