

The 'Drag Effect' of SMEs in the West Midlands Economy: A Growth Framework for SMEs

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Abstract

This paper focuses on the enabling and hindering factors to West Midlands SMEs' growth processes with the main objective of facilitating regional policy development on SMEs that drives growth whilst taking SME requirements into account. Based on a comprehensive analysis of key economic data on the West Midlands in the last twenty years, we identified that the West Midlands' achieved an enormous catching up with its 1998 productivity levels in the last five years; however, a sustained SME low productivity in the region prevails (ONS 2018). We call this contradictory phenomenon of slower growth among SMEs within the context of a thriving overall regional economic growth as the 'SME drag effect' on the economy. The low productivity problem started with the 2008 Global Financial Crisis and while other countries managed to rectify it soon after the economic downturn (Pryce 2015), the UK could not. Therefore, there is a clear gap in our knowledge on the underlying causes of this SME drag effect, which can be addressed with a deeper and targeted investigation of SME development and growth. We address this gap by employing a holistic research model to capture the deficiencies in the SMEs' growth process. Rather than a singular focus on particular drivers of the growth process, our theoretical approach to SME growth is built on understanding the interconnectedness between a wider range of issues that were previously treated in research as unrelated determinants of growth. More precisely, these are SME characteristics (e.g. age, size, sector), performance and planning (e.g. management and strategy, performance measures), external relations (e.g. markets and competition), added value (e.g. innovation, technology, CSR), and knowledge and resource management (e.g. HR management, training and development, finance and funding information advice and networks). This approach allows us to discuss the key areas that enable or hinder SME growth.

Methodologically, we apply quantitative analysis methods to our data collected through our Promoting Sustainable Performance (PSP) Survey (Gilman and Salder, 2020) from March 2018 to March 2020, up until the Covid-19 pandemic hit. Using composite index methods, we

combined three indicators of SME growth in employment, sales, and profits into one index and categorised our data as High Growth, Low Growth, Static and Decline SMEs. We first conduct a descriptive analysis based on chi-square tests of each variable in the key areas and then apply logistic regression to identify main factors that enable and/or hinder SME growth specific to each growth category. The descriptive analysis allows us to discuss our findings of regression analysis in detail. Overall we find that while high growth SMEs present almost all the key factors, low growth SMEs might adopt different approaches than high growth SMEs in some areas and still grow, indicating that there is no single pattern for SME growth. Static SMEs appear to be largely non-strategic and passive. Surprisingly, we identify unprecedented resemblances in the characteristics and practices of declining SMEs to high growth SMEs. Whether their strategy of replicating high growth SMEs is a result of performing so poorly or not, it does not yield similar results for the declining SMEs, requiring further research on this matter.

As a result of these findings, we propose a framework for SME growth that focuses on three major shortcomings of SME growth. The framework stresses the need for instigating a *change in mindsets* in the management and employees to be able to develop a strong foundation for effective *strategy development and planning* within the firm and *adopt digital technologies and skills* to lift productivity and efficiency of the surviving SMEs. By the end of the Covid-19 pandemic, a new business environment will emerge that is shaped by the innovative minds of SMEs that have managed to survive, transition and grow. Therefore, our framework aims at providing an opportunity to the SMEs and local policymakers to start thinking differently about the growth of SMEs.

This paper contributes to the academic literature with its holistic approach to SME growth, allowing us to produce research capable of more broadly informing practice, and its ability to identify the growth-related characteristics of four distinct categories of SMEs, allowing us to prescribe firm-specific policies in support of SME growth. Moreover, the fact that our data was collected in between two external shocks to the economy (i.e. the 2008 global recession and the Covid-19 pandemic) makes our findings more relevant for practice and policy considerations than ever. They shed light on the requirements of West Midlands SMEs in an economic environment that can be characterised as the recovery period in the aftermath of the global recession. Knowing those SME requirements immediately prior to the Covid-19 pandemic provides policymakers a meaningful insight to make more informed decisions.

Keywords: SME growth, Drag effect, SME classifications, High growth firms, West Midlands, Logistic regression

1. Introduction

Since the 2008 Global Financial Crisis (GFC), the UK continually seeks to address a low productivity problem that has become prevalent relative to other countries that managed to address the issue (Pryce 2015). The sources of this low productivity problem at the regional level differ. To shed some light on this in the West Midlands region, we conducted a comprehensive analysis of key economic data on the West Midlands in the last twenty years (Yoruk and Gilman 2021a).

We identified that despite receiving the biggest blow during the 2008 GFC, the West Midlands, compared to all UK regions, was on track to a healthy recovery before the Covid-19 pandemic. Its annual growth rate of GDP became more stable after 2012 and eventually converged with the best performing two regions' (London and East England) annual growth rate by 2018 at a level above the UK average. When the annualised ten-yearly GDP growth rates of UK regions were compared (1998-2008 vs 2009-2018), overall the UK economy presented a declining trend, whilst the West Midlands was not only among the regions that displayed an increasing trend, but also singled itself out with an enormous improvement.

By 2018, the West Midlands became the fifth-largest contributor to the UK's GVA. The region went through a structural change in its industries over the past twenty years, which affected its contribution to GVA adversely during the 1998-2008 period but improved throughout 2009-2018. Major sectors of manufacturing, agriculture, wholesale and retail trade, and real estate were shrinking while services sectors such as arts, human health, education, professional, scientific and technical services were expanding their contribution by 2018. However, an ONS (2018) study has found that in the West Midlands, the structural shift in the composition of industries from manufacturing to services has prompted/driven a relative productivity improvement but was not sufficient to fully compensate for the sustained low firm productivity (ONS 2018, Yoruk and Gilman 2021a).

SMEs comprise an important part of the West Midlands economy: they account for 99.9% of the total enterprises and contribute to 58% of the employment and 44% of the turnover. However, the share of West Midlands SMEs in total UK enterprises was 8% in 2017-2019 with a decreasing trend in all SME sizes (micro, small and medium). There were more business exits than entries particularly in 2018, leading to an overall shrinkage of SMEs in the West Midlands in 2019. This was expected to generate more productive enterprises. Yet, this impact was not observed. Not only did the 6% high growth performers in the UK economy just before the 2008 GFC shrink to less than 1% by 2016, but there was also a sharp decrease of HGFs in the West Midlands' enterprises since 2014.

A closer look at the contribution of SMEs to employment and turnover in the last ten years in the West Midlands' economy sheds light on a deeper issue of low productivity. We observe a relationship of employment share staying the same while turnover share drastically declines in the West Midlands SMEs. While SMEs' share in employment stayed around 58-59% from 2011 to 2019, their share in turnover fell sharply from 53% in 2010 to around 40% in 2015. Even though it gained slight momentum (4 percentage points or 11% increase) towards 2019, overall, it is a 17.2% drop in the share of SMEs in total UK turnover within a space of ten years. This relationship points out SMEs experiencing a 'survival economy' in the last ten years when West Midlands' economy is/was on a healthy path of growth. We call this contradictory phenomenon of slower growth among SMEs within the context of a thriving overall regional economic growth as the 'SME drag effect' on the economy, meaning SMEs create a drag force

that prevents the overall West Midlands economy from reaching its full potential. This is similar to a phenomenon in physics called the ‘drag effect’, best observed in airplane flights. A plane flying forward in the air enjoys an upward-lift force facilitated by the air moving over and under its wings, but at the same time, it experiences a drag force that pushes the plane backward and slows it down. Hence, the SME sector becomes/represents the major source of the productivity problem in the West Midlands, not an ideal situation for SMEs to be in when the Covid-19 pandemic hit. Therefore, it is important to understand the contextual characteristics of SME development and growth to address the underlying causes of this SME drag effect.

Concentrating solely on the outputs of SME growth will not produce an adequate picture of what is happening with the productivity issue. A more dynamic and contextual understanding will help us to address the issues in greater depth. Therefore, this paper focuses on a wide range of variables that may be enabling and/or hindering key areas of SMEs’ growth processes: the main objective being the facilitation of regional policy development for SME growth. We employ a holistic research model to capture the impact of broader operational areas in the SMEs’ growth process, whilst taking different SME growth classifications into account. We apply sequential logistic regression to our data collected through our Promoting Sustainable Performance (PSP) Survey from March 2018 to March 2020, up until the Covid-19 pandemic hit. For a broader perspective, we employ composite measure methods.

Using composite measure methods, we combined three indicators of SME growth in employment, sales, and profits into one composite measure and utilised it to create four firm growth classifications that will enable us to identify different characteristics of SME growth. These are High Growth, Low Growth, Static, and Decline SMEs. In an earlier report, we conducted a detailed bivariate analysis of these classifications and the individual indicators we utilised in creating our composite measures¹, so we will not be going into detail of descriptive analysis in this paper but focus on identifying main factors that enable and/or hinder SME growth specific to each growth category through regression analyses. The descriptive analysis allows us to discuss our findings of regression analysis in detail. Overall we find that while high growth SMEs present almost all the key factors, low growth SMEs might adopt different approaches in some areas and still grow, indicating that there is no single pattern for SME growth. Static SMEs appear to be largely non-strategic and passive. Surprisingly, we identify unprecedented resemblances in the characteristics and practices of declining SMEs to high growth SMEs. However, similarities in practices do not yield similar results for the declining SMEs, requiring further research on this matter.

2. Conceptual Framework

In this paper, we develop a holistic view of SME growth that takes into account the wider range of theoretical perspectives to firm growth. Ours is neither the first attempt nor will be the last (e.g. Wiklund et al., 2009). To date, the SME growth literature has been largely populated/occupied with investigations of the relationships between latent variables that derive from a particular theoretical perspective and the SME growth, leading to valuable generalisations. While this approach greatly enhanced our understanding of the growth phenomenon, gradually we lose sight of the bigger picture of how all these perspectives influence the SME growth process as a whole. Utilising a multidisciplinary perspective allows

¹ The descriptive analysis (Yoruk and Gilman 2021b) conducted earlier allows us to obtain a richer view of data and enables us with the ability to discuss our regression analyses findings in detail.

us to examine the depth and breadth of what SMEs are experiencing and to do so we focus on the key strategic areas that drive SME growth in broad terms. Most of the SMEs tend to focus on coping with the pressures arising from their market, industry and the wider economic environment as they emerge rather than strategising their internal management systems and external relations to respond to these pressures systematically. Moreover, in terms of organisational structure, contrary to large companies that have separated and complex management systems to deal with these key strategies SMEs often deal with these in a ‘fuzzy’ and disintegrated fashion, which makes understanding how these key strategic areas impact overall SME growth ever more important.

The key strategic areas can be grouped as internally-driven (namely, Performance management and planning, Technology and innovation, and Knowledge and resource management) and externally-related (namely, Markets and competition, Collaborations, and Supply chain).

Performance management and Planning have been one of those areas identified as being very weak within SMEs (Gruman and Saks, 2011). Often they are only found to be utilising basic accounting data which not only measure past performance but may not be the required data in order for the SME to be making decisions based on knowing whether they are in fact achieving in those areas that are critical for their growth (Garengo et al., 2005; Garengo and Bernardi, 2007). With regard to planning, previous research has found that when asked to produce their written strategy, at best SMEs have a specific business plan which may have been targeted for obtaining a bank overdraft or loan and at worst they could not produce or explain what the wider strategy was. Hence, empirical studies found owning a business plan to be important for SME growth in employment (Blackburn et al. 2013). Strategic choices made by SMEs such as a decentralised management style (Hayton, 2003), how they formed their strategic plan (alone or with others), and what issues are involved in it are important to long-term strategic planning.

Technology and Innovation are critical to growth (Crepon et al., 1998). It is therefore important that we interpret how and in what ways SMEs innovate and understand innovation. It is important that we understand how they use technology and whether they are able to take advantage of the new opportunities that present themselves in today’s modern environment or whether they are using it to catch up with the technological frontiers of their market (Colombelli et al, 2014).

Knowledge and Resource Management is an area that needs constant investment in terms of human capital (Rauch et al., 2005). It is argued that employees are businesses’ most valuable assets in the modern environment. It is therefore important to understand whether or not they are being supported with the appropriate policies and practices (Markos and Sridevi, 2010), whether they are being developed and trained in order to face the new skill and capability requirements of the modern world (Jones et al., 2013). Additional to this we need to understand whether the entrepreneurs and their management teams are developing themselves (Koryak et al., 2015) and are getting the appropriate support and advice as they grow (Drews and Hart, 2015). This also includes them understand the financial nature of growth and investment and the funds that might be utilised along the way (Berger and Udell, 1998).

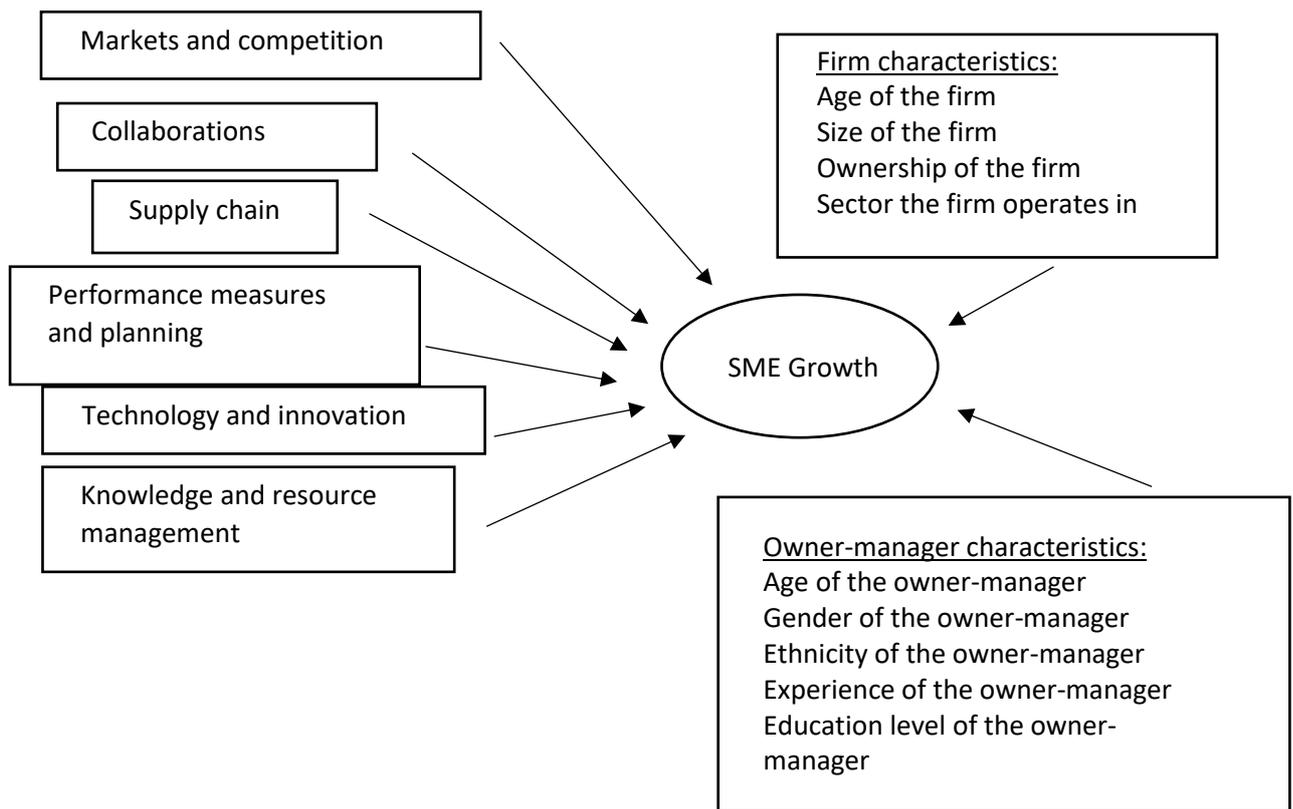
Externally-related key strategic areas are interested in whether they are analysing their external environment in order to understand it more fully. *Markets and Competition* is about which markets SMEs compete in with the expectation that broader and more international markets allow for greater growth potential (Hollenstein, 2005; Golovko and Valentini, 2011; Love and Roper, 2015). Also the nature of competition within the market and what their competitive

strategies are allow us to understand whether they indeed understand these areas, including are they working towards creating competitive advantage as part of their growth (Bamiatzi & Kirchmaier, 2012).

Supply Chain relationships with suppliers and customers again help us to understand whether these SMEs are being strategic and proactive in terms of adding value within their supply chains rather than solely accepting the nature of this as just a transactional element (Hong & Jeong, 2006; Eggers et al. 2013). Part of the above also requires us to understand whether they are building *collaborations* and partnerships, which help them to develop greater value by means of accessing resources outside of the firm (Moreno & Casillas, 2007).

So far, examining all these theoretical perspectives simultaneously in one analysis had been a challenging task. Yet, with the development of new analytical concepts and methods, we construct composite variables that comprise the underlying concepts of each perspective into one measure and observe the effect of the main underlying concepts of each theoretical perspective on SME growth.

Figure 1. Conceptual framework: Determinants of SME Growth – A holistic view



Moreover, different from previous literature, to fully understand the dynamics of the SME growth process, we frame our SME growth analysis within broad firm growth classifications. Focusing solely on the growth processes of growing firms is not necessarily helpful to identify what policies need to be prioritised so as to improve productivity in SME segments that drag

the economy into low productivity. Economic rejuvenation after the Covid pandemic will require more than what we know about high-growth firms, as the pandemic levelled off the growth prospects of most of the SMEs, whilst creating some high performers to which the pandemic became/proved to be an opportunity. This indicates a need to identify more classifications of SMEs than related to high growth. Because, while focusing on HGFs our analyses undermine the LGFs. By treating static growth firms as mundane entrepreneurship we intuitively surrender to the true meaning of the word that these SMEs are necessary for the functioning of the economy but there is nothing we can do to change their boring and unproductive attributes for them to contribute to economic growth.

3. Data and Methods

We aim at building as close a model to reality as possible (while recognising the approximate nature of models) to be able to create a holistic view of SME growth.

3.1 Data and Sample

The study sample is comprised of 280 West Midlands SMEs operating in a wide variety of sectors. Data were collected between March 2018 and March 2020, up until the Coronavirus crisis. The data collection process took place as part of Promoting Sustainable Performance (PSP) diagnostic survey, a research tool designed to investigate the key components contributing toward SME development and growth through data analysis of the large dataset while studying the individual SMEs alongside the sample level. Overall, the survey covers many perspectives such as growth patterns, organisational change, markets and competition, management and strategy, external relations, innovation, ICT, performance management and measurement, knowledge and human resource management, supply/value chain management, advice and networks, corporate social responsibility, and marketing. The survey also provides a wide range of information regarding firms' characteristics such as age, size, ownership of the firm, sector, and entrepreneurial characteristics such as owner-manager's age, gender, ethnicity, education level, and entrepreneurial experience that allows us to explore empirically the key enabling and hindering factors to SME growth.

Although our dataset is cross-sectional data, it holds the advantage of covering two years just before the Covid-19 pandemic led to a lock-down that adversely affected the operations of most businesses in March 2020 in the UK. Hence our dataset captures a significant time period that enhances our ability to judge SMEs' positioning just before the Covid pandemic and incorporate it into the SME policy development in the aftermath of the Covid pandemic (if there is going to be aftermath).

Table 1 displays the sectoral distribution of the sample. The service sector represents 86.5% of the sample when compared to around 11% in manufacturing and only 2.5% in construction. Around 31% of the SMEs operating in the service sector is under 'Other service activities', which is defined by ONS (2009) as the activities of membership organisations such as business and employers organisations, trade unions, political and religious organisations, the activities of computers and personal and household goods and other personal service activities such as washing, dry cleaning, hairdressing, physical well-being, and funeral activities.

Table 1. Sectoral distribution of the sample

	Frequency	%
Accommodation and food service activities	9	3.2
Administrative and support service activities	9	3.2
Arts, Entertainment and Recreation	14	5.0
Construction	7	2.5
Education	18	6.4
Financial and insurance activities	12	4.3
Human health and social work activities	27	9.6
Information and Communication	24	8.6
IT, Software and Computer services	1	0.4
Manufacturing	30	10.7
Other service activities	86	30.7
Professional, Scientific and Technical Activities	18	6.4
Real Estate Activities	6	2.1
Transportation and Storage	4	1.4
Wholesale and retail trade, repair or motor vehicles and motorcycles	13	4.6
Water supply, sewerage, waste management and remediation activities	2	0.7
Total	280	100.0

Our sample is predominantly composed of businesses that began as new start-ups. Being a Limited company is the most common operating entity among all SMEs. On average, 71% of the sample are owned and managed by private shareholders and around 70% of the businesses are the first venture of the owner-managers.

The PSP project provides SMEs that fill in the survey a diagnostic of their organisation's current performance level employing a multidisciplinary analysis of growth and performance variables. Hence, SMEs that filled in the survey during the above time period had done so voluntarily with the expectation of using such a diagnostic report in improving their organisation's performance. The sampling of the SMEs is therefore completely random and their responses are as objective as can be due to the ultimate motive of finding out the true standing of their business.

In the survey design, we followed certain methods to make our analysis free from common method bias. The dependent and independent variables were separated in such a way that the respondents could not perceive the relationship between the two. The questions on the dependent variable (i.e. related to business performance) came after questions that explore their customer-suppliers relations (i.e. related to business activities) and before questions on how they manage their company (i.e. related to business management), business operations that are not related to each other. Moreover, the questions in the survey were designed with different response formats, and the ones with items were constructed carefully to be direct, specific, and concise as well as independent of creating any psychological effect on the respondent. Respondents were given a choice to save their responses as many times as they want and to continue filling in the survey in their own time but complete it within a month if they wish to receive a report from the research team. This was done to create a temporal separation effect. All these methods followed during the survey design serve as procedural remedies to a potential common method bias (Podsakoff et al., 2003).

3.2 Variables and measures

Composite measures are widely used in sectors such as health care with the main objective of facilitating policy development. They provide summary information about the bigger picture of the multiple dimensions of complex and multidimensional issues. They allow us to make a rounded assessment and comparison of these issues, hence allowing to see the policy priorities for implementation (Becker et al., 2016). In this paper, the main objective of our analysis is to facilitate local and regional policy development on SMEs that drives growth. Employing composite measures in our analysis allows us to adopt a holistic view of the enabling and hindering factors to SME growth processes.

Moreover, due to our relatively small sample size, using a large number of parameters that represent multiple dimensions of SME growth to estimate in a model is not plausible. Instead, we capture the multidimensionality of the concepts that affect SME growth by developing a separate composite measure for each dimension.

While creating the composite measures used in our analysis, we relied on the above conceptual framework we developed, in particular during the identification of the key components for each overarching concept and their correlations.

Using composite measures has advantages. Because they are exact linear aggregations of weighted indicators, composite measures have no disturbance term (i.e. the error variance is set to zero by definition) and their coefficients are not structural or causal coefficients (Bollen and Bauldry, 2011). A composite measure combines the effects of several variables into a single composite and its standardised coefficient can then be compared to the standardised coefficient of other single or composite measures in the model (Bollen and Bauldry, 2011). Moreover, because all the information is collected from the same survey, composite measures allowed us to overcome this limitation by creating some degree of distinction among the variables used. We used the survey responses as the control variables, created composite measures with the survey responses for the independent variables, and used the composite measure of growth to create SME growth classifications to be used as dependent variables.

3.2.1 Dependent variable: SME Growth Classifications

A firm's employment level may remain the same over a three year period, but its sales might grow rapidly by an annual average of 20% or more and its profits might grow steadily on an annual average of somewhere in between 5% to 20%. How is this company categorised? High growth because its sales have met the criteria, or is it going to be considered as not grown at all, because its employment level stayed the same over the three year period. Many firms locate in this grey area due to different combinations of growth in employment, sales and profit.

Most often these three indicators are used to measure firm growth individually, creating research outcomes that are difficult to compare. Previous literature strongly recommends the use of multiple indicators to examine firm performance and growth (Weinzimmer et al., 1998; Delmar and Davidsson, 2003; Davidsson et al., 2010; Blackburn et al., 2013).

How business growth is measured paves the way to overcome limitations to enhancing our understanding of business growth (Robert et al., 2014). In this paper, we took the pledge further to construct a composite measure for SME growth (Hamann et al. 2013) with these three firm growth indicators and to use this composite measure's values in identifying SME growth classifications.

Adopting the common practice in composite measure construction, we aggregated the three main indicators for firm growth, namely growth in employment, growth in sales revenue, and growth in profits (Table 2). We asked West Midlands SMEs about their growth tendencies in each of these dimensions over the last three years. Each of these indicators was measured via five categories: whether the firm's growth has *reduced sharply* on average by more than 20% per annum, *reduced steadily* on average by 5-20% per annum, *remained the same* varying by +/- 5% per annum, *grown steadily* on average by 5-20% per annum or *grown rapidly* on average by more than 20% per annum. Each of these categories is quantified with values ranging between 0 and 1 to meet the requirements of the normalisation process in composite measure construction (OECD 2008). The aggregation stage produces the value of the composite measure by arithmetically combining the variables in a weighted average. As widely used, we set the weights of each growth indicator (i.e. growth in employment, sales and profits) to be equal so that each indicator contributes equally to the value of the growth composite measure.

Table 2. Definition and measurement of SME Growth Dimensions

<i>SME Growth Dimension</i>	<i>Observed Indicator</i>	<i>Measurement items</i>
Employment	SME Growth tendency over the last three years in employment	<i>Reduced sharply</i> on average by more than 20% per annum, <i>Reduced steadily</i> on average by 5-20% per annum, <i>Remained the same</i> varying by +/- 5% per annum, <i>Grown steadily</i> on average by 5-20% per annum, <i>Grown rapidly</i> on average by more than 20% per annum.
Sales Revenue	SME Growth tendency over the last three years in sales revenue	
Profits	SME Growth tendency over the last three years in profits	

Therefore, the value of the SME growth composite measure represents the overall growth tendency of each SME over the last three years in employment, sales revenue and profits combined. Based on this value, we identified four growth classifications among our sample to use as our dichotomous dependent variables: High growth (HGFs), Low growth (LGFs), Static growth (SFs), and Declining firms (DFs) (Table 3). So, our dependent variables are *the SME growth classifications* created by using the value of the composite measure for SME growth and not the composite measure itself.

It needs to be noted that the use of composite measures for identifying growth classification distinguishes our definition of HGFs from the conventional OECD and Eurostat definitions. Their HGF definition is based on pre-determined criteria of firms have at least 10 employees at the beginning of the growth period and an annualised growth rate in 'employment' exceeding 20% during a three-year period. Our high growth category takes into account the combined effect of growth in 'employment', 'sales revenue' and 'profits' rather than focussing on growth in one of these dimensions without restrictions imposed on the number of employees pre-growth period.

Across our sample of 280 SMEs, 15% of the SMEs were identified as high growth firms, 38.6% were low growth firms, 32.1% were static firms, and 14.3% were declining firms (Table 3).

Table 3. Classifying firm groups by their SME growth composite measure values

Firm Classifications	Growth	Composite value range	measure	Firm size (frequency)	Group	Percent Total	in
High Growth Firms (HGFs)		HGF \geq 0.30		42		15%	
Low Growth Firms (LGFs)		0.30 < LGF \leq 0.20		108		38.6%	
Static Growth Firms (SFs)		0.20 < SF \leq 0.15		90		32.1%	
Declining Firms (DFs)		DF < 0.15		40		14.3%	
Total sample				280		100%	

3.2.2 Independent variables

In line with our remit of identifying policy priorities, instead of employing individual observable indicators, we chose to create composite measures for underlying concepts that drive SME growth, namely the growth determinants in key business areas explored in our conceptual framework. To create composite measures, we employed the scoring method. We set the evaluation criteria for the survey responses as a scale with an individual weight assigned to each criterion.

The scale represents SMEs with different levels of business qualities/attributes and their associated weights are 1 SMEs running a business by getting on with the job, but being operationally focused and delivering rather than planning, 2 SMEs that show signs integrating elements of development practice through longer term planning, performance monitoring and strategy implementation, and 3 SMEs that are ‘self-actualising’ firms linking operational change with strategic planning involving value adding activities. Based on theoretical underpinnings, either categorical responses are directly assigned to one of the scoring criteria, or the scoring criteria were applied to the arithmetic aggregation of the selected items in a particular question.

There are six composite measures with 38 indicators used to create them (Table 4). The final value of each composite measure is calculated as the weighted average of total scores obtained from the indicators of each composite measure. Each composite measure has a rationale behind them; they comprise the underlying concepts of the theoretical perspectives they represent. The Cronbach’s Alpha value for the six composite measures was 0.67.

The correlation matrix in Table 4 shows the Pearson correlation coefficients among the composite measures and indicates low to moderate correlations, except a relatively high correlation between Performance measures and planning (PP) and Knowledge and resource management. The correlation between PP and KRM cannot be attributed to sharing a common method since all six composite measures do so, and hence, their correlation might not be viewed as a source of potential common method bias.

3.2.3 Control Variables

We use two sets of control variables, firm characteristics and owner-manager characteristics, to eliminate bias in estimating the relations between SME growth and latent variables. The firm characteristics consist of the age, size and ownership of the firm as well as sector while the owner-manager characteristics consist of the age, gender, ethnicity, experience, and education level of the owner-managers. They are binary variables.

3.2.4 Method and model specification

When the dependent variable is a dichotomous variable and the independent variables are a mix of continuous and discrete variables, probit or logistic regression methods are appropriate to estimate the model. Logistic regression emphasises odds ratios, namely the probability of a particular outcome for each firm, in this analysis e.g. being an HGF, given a firm's pattern of responses to questions. In model building and robustness checks, the strategies and tests suggested by Hosmer and Lemeshow (2013) and Tabachnick and Fidell (2007) were followed.

We specify the model as:

$$\text{Logit}(Y_i=1) = \ln [\text{Pr}(Y_i=1) / 1-\text{Pr}(Y_i=1)] = \alpha_j 0 + \theta_j 1 \text{Control variables for firm characteristics} + \theta_j 2 \text{Control variables for owner-manager characteristics} + \beta_{jk} \text{Growth determinants} + \epsilon_{ij}$$

We performed sequential (hierarchical) logistic regression on four binary dependent variables: 1 if an SME is categorised as being an HGF, 0 otherwise; (Model 1), 1 if an SME is categorised as being an LGF, 0 otherwise; (Model 2), 1 if an SME is categorised as being an SF, 0 otherwise; (Model 3) and 1 if an SME is categorised as being a DF, 0 otherwise; (Model 4).

These dependent variables capture different levels of firm growth. All models have the same set of variables. Growth determinants are continuous and are scaled linearly in the logit.² The restricted model has only the control variables. By employing the sequential logistic regression method, we evaluate the predictive ability of growth determinants after adjusting for the differences in the firm and owner-manager characteristics.

We are aware of the limitations of using a cross-sectional dataset. For instance, it only allows us to evaluate the SME growth for the past period (Davidsson et al., 2010), without an ability to compare with any other period. More importantly, we have considered the concerns over endogeneity due to cross-sectional data in discrete-choice models. Since the respondent firms found our survey on their own and filled it in voluntarily, we consider our sample to be a random sample. Having created composite measures of key business areas that affect business growth for our independent variables using a wide variety of indicators minimises the possibility of omission of some important variables, but we realise that may not completely eliminate it.

² We applied the test of linearity in the logit, and there is no violation of this assumption for our continuous variables. Estimations available on request from the authors.

Table 4. Descriptive statistics of independent variables as composite measures

Composite Measure	Markets and Competition (1)	Collaborations (2)	Supply Chain (3)	Performance management and Planning (4)	Technology and Innovation (5)	Knowledge and Resource Management (6)
MC (1)	1.000	.087	.090	.143*	.256**	.087
Collab (2)	.087	1.000	.141*	.177**	.208*	.179**
SC(3)	.090	.141*	1.000	.280	.303**	.212**
PMP (4)	.143*	.177**	.280**	1.000	.531**	.732**
TI (5)	.256**	.208**	.303**	.531**	1.000	.525**
KRM (6)	.087	.179*	.212**	.732**	.525**	1.000
Mean	.632	.446	.753	.567	.656	.561
SD	.0861	.139	.139	.181	.087	.120
Min	.38	.33	.42	.33	.44	.34
Max	.87	.67	1.00	1.00	.87	.85
Indicators used to create the composite measure	-Market Distribution -International Sales -International Trade -Market Conditions -Concentration of competition in the market -Competition strategy pursued -Competition factors	-Presence of collaborations -Intensity of collaborations -Membership of industrial/professional organisations -Collaborations with external organisations to seek information and advice	-Suppliers' main role -Supplier dependency -Customers' main role -Customer dependency	-Management style -Strategic plan -Contents of the strategic plan -Formation of the strategic plan -Performance measures	-Product innovations -Process innovations -Obstacles to innovation -CSR -Technology tools -Technology investments	-Investments in Human Resources -HR Responsibility -HR Practices -Employee pay -Employee engagement -Work hours -Training budget -Training days -Training provider -Skill development -Finance and Funding -Information and advice acquisition

4. Empirical Results

Table 5 provides the results of sequential logistic regression for all four models first based on firm and owner-manager characteristics and then after the addition of six growth determinants. In terms of overall model fit, all our models, except Model 4_DF, show a significant improvement in fit relative to a constant-only model with at least $p < 0.05$. Hosmer and Lemeshow test results indicate a good fit for the full model of Model 1_HGF and an adequate fit for those of Model 2_LGF and Model 3_SF.

Comparison of log-likelihood ratios for restricted and full models showed statistically significant improvement with the addition of growth determinants in Model 1_HGF ($\chi^2(6) = 36.887$ $p < 0.001$) and Model 3_SF ($\chi^2(6) = 26.491$ $p < 0.001$). The same could not be said for Model 2_LGF ($\chi^2(6) = 9.022$ $p < 0.25$) and Model 4_DF ($\chi^2(6) = 8.503$ $p < 0.25$). Overall classification is better in Model 1_HGF and Model 4_DF with around 85% and Model 3_SF with 73% than in Model 2_LGF with 65%.

4.1 Characteristics of being an HGF

The estimation results from the full Model 1_HGF identify being a sole trader and a micro-business, being younger than 5 years and having this business as the second venture as positive and statistically significant predictors of the probability of being an HGF. The odds of being an HGF is 24 times more likely among sole traders than among medium-sized SMEs and it is around 6 times more likely among micro-businesses. Being as young as less than three years makes SMEs 4 times more likely to be an HGF and being between 3 to 5 years 5 times more likely. Being family-owned is also a significant predictor, however, it is negative, reducing the odds of being an HGF by 77%.

In terms of growth determinants, performance measures and planning, and knowledge and resource management are positive and statistically significant at 5% level. A 10% increase in the value of KRM increases the probability of being an HGF almost twofold, while a 10% increase in PP values increases the probability of being an HGF by 55%. Supply chain and external collaborations are also statistically significant (albeit at a lower 10% significance level), however, whilst a 10% increase in the value of the supply chain increases the probability of being an HGF by almost 40%, as the value of collaborations increase by 10%, the probability of being an HGF decreases by 26%.

4.2 Characteristics of being an LGF

The estimation results from the full Model 2_LGF identify the ethnicity of the owner-manager as a significant predictor (at 1% level) of being an LGF. Rather than being a West European or an ethnic minority, being a hybrid increases the probability of being an LGF slightly over 80%. A business running for 6-10 years is also a positive and significant predictor that increases the probability of being an LGF by 2.5 times. When it comes to growth determinants, the probability of being an LGF reduces by 23% as the value of PP increases by 10%, and none of the other growth determinants are statistically significant.

Table 5. Characteristics of SME Growth Classifications: Results of sequential logistic regressions

	HGF				LGF				SF				DF			
	Restricted model		Full model		Restricted model		Full model		Restricted model		Full model		Restricted model		Full model	
n=280	Coeff. (S.E.)	OR	Coeff. (S.E.)	OR	Coeff. (S.E.)	OR	Coeff. (S.E.)	OR	Coeff. (S.E.)	OR	Coeff. (S.E.)	OR	Coeff. (S.E.)	OR	Coeff. (S.E.)	OR
Sole Trader	-0.18 (0.88)	0.84	3.18** (1.25)	24.11	-0.33 (0.70)	0.72	-0.92 (0.84)	0.40	1.11 (0.89)	3.04	-0.18 (1.05)	0.84	-0.31 (1.00)	0.73	-0.08 (1.19)	0.93
Micro	-0.95 (0.74)	0.38	1.73* (1.03)	5.67	-0.73 (0.55)	0.48	-1.28 (0.68)	0.28	1.76** (0.77)	5.81	0.73 (0.90)	2.07	0.14 (0.64)	1.15	0.39 (0.84)	1.48
Small	-0.51 (0.71)	0.60	0.14 (0.84)	1.15	0.26 (0.52)	1.30	0.00 (0.54)	1.00	0.90 (0.76)	2.46	0.88 (0.80)	2.42	-0.81 (0.65)	0.44	-0.74 (0.70)	0.48
Less than 3Years	0.81 (0.66)	2.24	1.35* (0.74)	3.86	-0.04 (0.49)	0.96	-0.02 (0.50)	0.98	0.62 (0.48)	1.86	0.59 (0.51)	1.81	-1.97*** (0.65)	0.14	-2.07*** (0.68)	0.13
Years 3to5	1.14* (0.63)	3.12	1.59** (0.70)	4.90	0.37 (0.47)	1.44	0.34 (0.48)	1.40	-0.03 (0.49)	0.97	-0.00 (0.53)	1.00	-1.79*** (0.66)	0.17	-2.17*** (0.72)	0.11
Years 6to10	0.62 (0.63)	1.86	0.23 (0.74)	1.26	0.90*(0.46)	2.47	0.90* (0.48)	2.46	-0.92* (0.54)	0.40	-0.63 (0.56)	0.53	-0.71 (0.55)	0.49	-0.88 (0.58)	0.42
Family Owned	-1.36** (0.65)	0.26	-1.47** (0.72)	0.23	0.61* (0.34)	1.84	0.56 (0.35)	1.75	0.19 (0.37)	1.21	0.17 (0.40)	1.19	-0.31 (0.49)	0.73	-0.25 (0.51)	0.78
Service	0.51 (0.60)	1.66	0.56 (0.67)	1.74	-0.17 (0.41)	0.84	-0.07 (0.43)	0.94	-0.01 (0.53)	0.99	-0.09 (0.57)	0.92	-0.20 (0.52)	0.82	-0.23 (0.54)	0.79
Entr Under 30yrs	0.53 (0.80)	1.70	0.57 (0.89)	1.76	0.24 (0.58)	1.27	0.19 (0.60)	1.21	-0.71 (0.63)	0.49	-0.61 (0.66)	0.55	-0.01 (0.99)	0.99	-0.17 (1.02)	0.85
Entr 30-44 yrs	0.34 (0.59)	1.40	0.44 (0.68)	1.55	-0.35 (0.44)	0.71	-0.5 (0.46)	0.60	-0.16 (0.48)	0.85	0.02 (0.50)	1.02	0.52 (0.63)	1.69	0.50 (0.65)	1.64
Entr 45-60 yrs	0.47 (0.65)	1.60	0.88 (0.75)	2.41	-0.22 (0.48)	0.81	-0.32 (0.49)	0.72	-0.27 (0.51)	0.77	-0.39 (0.55)	0.68	0.24 (0.69)	1.27	0.15 (0.71)	1.16
Entr Male	0.25 (0.40)	1.29	0.13 (0.46)	1.14	0.37 (0.29)	1.45	0.29 (0.30)	1.33	-0.35 (0.30)	0.70	-0.25 (0.33)	0.78	-0.28 (0.39)	0.75	-0.17 (0.41)	0.85
West European	1.39 (1.12)	4.00	1.71 (1.18)	5.53	-1.70** (0.67)	0.18	-1.85*** (0.71)	0.16	1.78 (1.10)	5.94	1.56 (1.11)	4.76	-0.10 (0.90)	0.90	-0.13 (0.92)	0.88
Ethnic Minority	-0.11 (1.16)	0.90	0.04 (1.24)	1.04	-1.65** (0.68)	0.19	-1.66** (0.73)	0.19	2.24** (1.09)	9.37	1.79 (1.12)	5.99	0.39 (0.91)	1.48	0.23 (0.92)	1.26
Second Venture	0.72 (0.46)	2.06	0.89* (0.51)	2.44	-0.57 (0.37)	0.57	-0.46 (0.37)	0.63	0.01 (0.37)	1.01	-0.15 (0.40)	0.86	0.47 (0.48)	1.60	0.62 (0.50)	1.85
Third Onwards Venture	0.94* (0.50)	2.56	0.77 (0.58)	2.16	-0.43 (0.40)	0.65	-0.39 (0.41)	0.68	-0.09 (0.43)	0.91	0.03 (0.46)	1.03	-0.18 (0.56)	0.83	-0.24 (0.57)	0.79
Educ_PG	0.35 (0.50)	1.42	0.06 (0.59)	1.06	-0.14 (0.37)	0.87	-0.08 (0.39)	0.93	-0.30 (0.40)	0.74	-0.14 (0.43)	0.87	0.45 (0.49)	1.57	0.46 (0.51)	1.59
Educ_UGDiploma	-0.22 (0.52)	0.80	-0.51 (0.59)	0.60	0.43 (0.37)	1.54	0.46 (0.38)	1.58	-0.20 (0.40)	0.82	-0.05 (0.43)	0.95	-0.36 (0.54)	0.70	-0.44 (0.56)	0.65

Educ_ProfDev	0.10 (0.62)	1.11	-0.11 (0.71)	0.90	-0.66 (0.50)	0.52	-0.55 (0.51)	0.57	0.49 (0.50)	1.63	0.49 (0.55)	1.63	-0.02 (0.64)	0.98	-0.19 (0.66)	0.83
MrktCompⁿ			3.01 (2.55)	1.35			2.72 (1.69)	1.31			-4.87** (1.94)	0.61			0.99 (2.23)	1.10
Collabⁿ			-2.97* (1.69)	0.74			0.24 (1.02)	1.02			0.56 (1.13)	1.06			0.37 (1.38)	1.04
SuppChainⁿ			3.32* (1.75)	1.39			1.17 (1.09)	1.12			-3.72*** (1.23)	0.69			1.72 (1.51)	1.19
PerfMngPlanⁿ			4.30** (1.88)	1.54			-2.66** (1.29)	0.77			1.07 (1.42)	1.11			-1.22 (1.74)	0.89
TechInnovⁿ			2.92 (3.13)	1.34			1.76 (2.05)	1.19			0.77 (2.32)	1.08			-7.66** (3.19)	0.46
KnowResMngⁿ			6.84** (2.76)	1.98			0.59 (1.91)	1.06			-6.83*** (2.11)	0.51			4.09 (2.74)	1.51
Constant	-3.74*** (1.46)	0.02	-18.03*** (3.71)	0.00	1.46 (0.94)	4.30	-0.69 (2.11)	0.50	-3.63*** (1.37)	0.03	5.51** (2.56)	247.09	-0.95 (1.27)	0.39	0.30 (2.89)	1.35
χ²	30.114		67.001		34.089		43.111		44.023		70.514		23.936		32.439	
df	19		25		19		25		19		25		19		25	
Prob > χ²	0.050		0.000		0.018		0.014		0.001		0.000		0.199		0.146	
Hosmer and Lemeshow Test Prob > χ²	0.742		0.936		0.335		0.352		0.870		0.357		0.961		0.056	
Log Likelihood	-103.302		-84.859		-169.657		-165.147		-185.313		-140.567		-102.865		-98.614	
Nagelkerke Pseudo R Square	0.179		0.373		0.156		0.194		0.203		0.311		0.146		0.195	
McFadden Pseudo R Square			0.283				0.115				0.201				0.141	
Correct classification	84.6%		86.8%		65.7%		65.0%		73.2%		73.2%		85.7%		86.8%	
*p<0.1.**p<0.05.*** p < 0.001.																
ⁿ Odds Ratios (OR) in these variables for a 10% increase.																

4.3 Characteristics of being an SF

The estimation results from the full Model 3_SF identify three growth determinants as influential on the likelihood of being an SF. A 10% increase in the value of Markets and Competition decreases the likelihood of being an SF 39%. Similarly, that increase in Supply Chain reduces the likelihood of being an SF 31%, and 10% increase in knowledge and resource management diminishes the probability of being an SF by a hefty 49%.

4.4 Characteristics of being a DF

The estimation results from the full Model 4_DF identify trading less than 3 years and for 3 to 5 years reduce the likelihood of being a DF by 87% and 89% respectively, indicating DFs tend to be old firms trading more than 10 years. In terms of growth determinants, technology and innovation singles out since a 10% increase in this key business area decrease the probability of being a DF by 54%.

5. Discussion of the Results

This paper provides a holistic view of determinants of SME growth with the main objective of developing an ability to identify SME policy priorities. It also aims to improve our understanding of SME growth, which is, despite all the efforts to date, still somewhat limited. By using composite measures that encapsulate a broader view of key strategic areas in SMEs, we assess the bigger picture of how theoretical perspectives to SMEs influence the SME growth process as a whole.

While our findings on HGFs are to a great extent in line with the extant literature in terms of the firm and owner-manager characteristics, they shed light on growth factors that have not been examined in such context before.

We find some evidence in support of the common perceptions that young firms are more likely to be an HGF, that family-owned firms are less likely to develop high growth (Le Breton-Miller & Miller, 2013), and that having second ventures means more entrepreneurial experience and hence leads to a more successful business and high growth (Dobbs & Hamilton, 2007). However, different from the previous literature, our findings reveal that sole traders becoming an HGF is exceptionally highly likely compared to other firm size categories. Sole traders as a category of SMEs have been excluded from the widely accepted HGF definitions in the literature which imposes a minimum of 10 employees as one of the criteria to be an HGF. While the logic behind this approach is understandable (i.e. they have a high churn rate (Haltiwanger et al., 2013)), such exclusion overlooks an important perspective to SME growth. Since the 2008 Global Financial Crisis, self-employment rates have increased so much that the growth of sole trading SMEs has skyrocketed ([MerchantSavy](#), 2021). In the West Midlands, the sole traders account for 6.8% of the SMEs in 2019 (Yoruk and Gilman, 2021a) and 8.9% in our sample. Another deficiency of the acknowledged HGF definitions is to refer to growth in employment terms and exclude growth in sales and profits, which is most often the kind of growth sole trader SMEs achieve ([Guardian](#), 2014, based on ONS Business Population Statistics). Measuring SME growth in employment therefore by definition eliminates sole traders from measuring their growth possibilities. Moreover, sole trader SMEs are not necessarily the same as new start-up SMEs (which is around 80% in our sample). The lack of

prior studies on the relationship between being a sole trader and growth leaves us with nothing to compare with, but instead, allows us to contribute to the SME growth literature with this finding.

Additionally, our findings contribute to the literature with regard to the examination of SME growth classifications other than HGFs. Micro businesses are less likely to be an LGF when compared to medium-sized SMEs, indicating as the firm size increases the likelihood of firm growth does not diminish rather the intensity of firm growth diminishes. In terms of firm age, neither young nor old firms, but firms trading 6 to 10 years are more likely to grow at low levels. Our findings did not distinguish any firm characteristics to be significant for the growth of static firms, however, they confirm earlier findings that firms that are over 10 years are more likely to decline than to grow (Navaretti et al, 2014).

The age, gender and education of the owner-manager do not have any significance on the SME growth classifications, nor does the sector they operate in. We expect SME growth not to be directly associated with whether the industry is a growing or declining one but with the (arising or fading away) opportunities in each sector, particularly as a result of the changing economic situation, the level of competition, and technological progress, and the firm's capabilities for taking advantage of the arising opportunities in its industry.

The more important and robust finding is about the growth determinants once we control for the firm and owner-manager characteristics. In line with the extant literature on HGFs, we find that HGFs high growth performance is strongly supported by their capability to manage knowledge and resources, to use performance measures and to effectively plan/strategise. Our detailed descriptive analysis (Yoruk and Gilman 2021b) shows that HGFs differ in their approach to their supply chain, which they view more as a value adding activity rather than as a transactional supply chain issue. Also, they attach importance to cooperation with both suppliers and customers rather than with one or the other. However, despite the emphasis of network literature on the importance of collaborations for firm growth, particularly through learning and innovation, there is a growing literature on SMEs not relying on external collaborations as expected in business areas such as innovation (Ardito and Petruzzelli, 2017; Xie et al., 2015) and internationalisation (Jiang et al., 2020). Our findings confirm this negative relationship between collaborations and SME growth in particular reference to HGFs. In other words, we find that having collaborations does not increase the likelihood of being an HGF.

What distinguishes high growth from low growth lies in the effective use of performance management and strategic planning. LGFs may not incorporate a wider and decentralised management capacity to enhance expertise for further growth or concentrate on multiple strategies to address growth issues in their strategic plan as HGFs do (Bamiatzi and Kirchmaier, 2014). They may have a strategic plan but they may have it designed for short term (Garengo et al., 2005) or may not involve employees in its formation and/or communicate these strategies with them as effectively as HGFs (Gruman and Saks, 2011). Most often SMEs have the wrong perception of the performance measures (i.e. overreliance on financial data, not knowing on what to collect data), their implementation (i.e. not knowing how to analyse the collected data) and even their benefits for improving organisational capabilities for developing and aligning strategies (Garengo et al., 2005; Garengo and Bernardi, 2007). Recently, the shift into digital technology systems makes the collection and analysis of performance measures more complex and costly for SMEs (requiring SMEs to recruit or work with IT experts). Our earlier descriptive analysis identified that LGFs lag behind HGFs in technology use and we suspect the main reason for this is their complacency with operating in their niche market and not

aspiring for more, which might be linked to the findings of firm age for LGFs running their businesses for 6 to 10 years (Yoruk and Gilman 2021b).

Our findings suggest that SFs would not endure/undergo static growth if they could improve their strategic approaches to their relationships with their customers and suppliers in supply chains, to managing knowledge and resources more systematically, and to developing their markets and their competitiveness in them. This lack of strategic approach stems from a passive presence in the markets they operate and a lack of interest in active engagement in many areas if the external environment does not create a push-effect. Our earlier descriptive analysis identified an excessive and short-term focus on sales and marketing strategies being at the core of SME management priorities, particularly SFs pursuing low-cost competition strategy coupled with an overreliance on few suppliers and few customers making them highly dependent on their supply chain relations (Yoruk and Gilman 2021b). Our findings in this paper confirm those findings as SFs are mostly disadvantaged by their lack of perception of market development and competitive forces. For instance, most of the SFs in our sample export and have done so for quite some time suggesting they might have more experience in entering international markets (Love and Roper, 2015). However, when the export experience is limited to a particular geography and without integrated engagement (e.g. in overseas distribution and/or production) (Hollenstein, 2005), simply exporting to stable markets does not yield learning and capabilities which lead to further organisational and market growth in SFs.

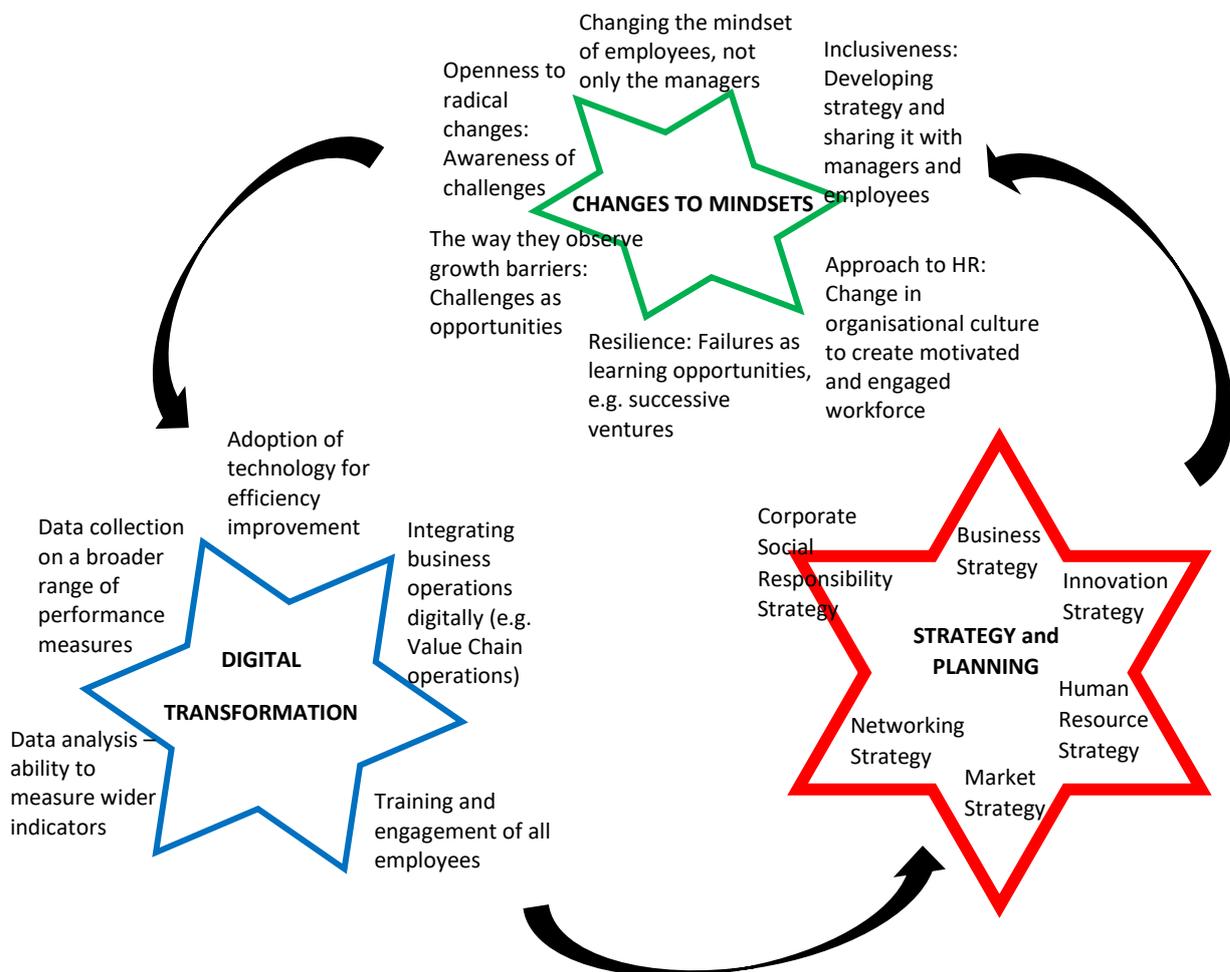
Our earlier descriptive analysis identified that DFs were pursuing similar business activities of HR, innovation, collaboration and networking to HGFs and even seeking information and advice in critical areas to firm growth. DFs in our sample are in general older firms, possibly with established knowledge and practices on how to coordinate a variety of business activities that add value to the business, and yet have not been keeping up with the rapidly changing developments in their external environment to catch up with the competition. They are also present mostly in declining/inconsistent markets, indicating that their product or service offers are at the end of their life cycle with high competition. Our findings on the lack of technology and innovation that drives DFs decline confirm why they are not capable of re-establishing in a new niche market to continue competing and growing. In other words, organisational and managerial capabilities are insufficiently supported with technological improvements and innovative capabilities within DFs.

6. SME Growth Framework

Since the Covid-19 pandemic has been structurally changing the business environment so abruptly, it has become crucial to help as many SMEs to survive as possible for regions to sustain healthy economies. More than half of the surveyed UK SMEs are expected to be out of business in the next 12 months ([McKinsey 2021](#)). The loans provided by the UK government may target to ease the financial challenges the SME sector has been facing throughout the pandemic, yet a more systematic and strategic approach to the use of the loans will assure SMEs not only survive but also grow. This is an opportunity for SME owner-managers and local policymakers to start thinking differently about the growth of SMEs. This is essential for two reasons. Firstly, to lift the productivity and efficiency of the surviving SMEs, and secondly, to help more SMEs to survive, especially following Covid-19. A new approach to SME development and growth is the only way to provide the right support that will eventually pave the way to solving the productivity puzzle at the local level and overcome Covid effects.

Based on our findings, we propose an *SME Growth Framework* (Figure 2) that prioritises the elimination of barriers related to their internal capability development over externally-related barriers; namely focusing on effective short-term performance management and long-term planning, investing in and using more technology, developing capabilities for innovation, and managing knowledge and resources on a constant basis. Our findings also reveal that the success of HGFs is concealed in their approach to formal and effective *strategy development and planning* with a longer-term view and comprehensiveness. SMEs need guidance in perceiving firm growth not merely as ‘market growth’, and start seeing business aspects as a whole and aim for creating a comprehensive strategy. The strategic mistake made by most of the SMEs is attempting to cover distinct business aspects from a narrow perspective (e.g., relying on accounting data analysis with no written or verbal strategy). Neither the concept of strategy, though widely used, is as clear as it should be to the owner-managers, nor how to link various aspects of the strategy to each other.

Figure 2. The SME Growth Framework in the era of Covid-19



To instigate radical strategic transformation requires a *change in mindsets*. Mindset is about deciding what growth means to each SME, turn the level of growth they would like to achieve into an aspiration for themselves and make conscious choices of strategies, partnerships, technologies and people to achieve it. It requires the development of a different approach to

human resources, strategic leadership and organisational culture within the SME that involves the employees, an area particularly SFs suffer from. Mindsets observing growth barriers not as challenges but as opportunities for change may lead to transformative strategies, such as in Covid times transforming the firm digitally, an area particularly DFs fail to catch up with. However, the concept goes beyond the misperception of using digital technology tools such as computers and/or taking the business online. *Digital transformation* involves the broader adoption of technology in association with people and processes to manage and develop the business efficiently. Hence it is not about digitization of processes within the firm via a variety of technologies. It collects a wider variety of performance measures and analyses data e.g. to pick the changes in patterns of sales, supply, production or employee productivity and satisfaction. As a result, it integrates data on business operations at every level to develop a systematic, sensible and accurate strategy that takes every business aspect into consideration.

However, our earlier descriptive analysis reveals the adoption of available technological resources to improve time management and monitor trends in the market, but the number of such technology use is very limited. It is restrained to one particular business area or in basic areas related to business infrastructure (such as finance, IT, advertising and marketing). Slightly more than half of the SMEs reported they have 'ad hoc' technology investments in these areas. We observed only HGFs adopting digital technology in areas such as management information, strategic thinking and human resources.

At a time when small size brings in flexibility for SMEs to respond promptly to market shifts, formal strategy planning reinforced with adaptability to new mindsets and strategic agility with new technologies would create a competitive advantage that carries the SMEs to growth. However, to implement this growth framework SMEs will need to be supported. Particularly at times of Covid such support through the right SME policies will make the most needed change in the economic environment.

7. Policy implications and Conclusion

As we have shown in this paper, SMEs have varying characteristics and needs with regard to growth potential. SME policies need to be more bespoke than generic, which overall requires a complete change in the approach towards SME growth from supporting SMEs to become HGFs to guiding SMEs in their transitioning from one growth state to a better growth state. To do so, local and regional SME policies adopt a bottom-up approach to support SMEs in developing a clear direction, skills and capabilities with public funding, to consult with SMEs to create opportunities in line with their needs, to assume the role of coordinating the actors who will ensure enabling the bottom-up support systems, such as banks, NGOs, universities, business development and technical assistance providers.

Affected by the Covid-19 pandemic the hardest outside of London, the West Midlands is expected to suffer the worst economic and social impact in the near future. The region has made investments in business infrastructure and support in innovation over the years, however, with the Covid-19 pandemic, it is now vital for the region to prioritise policies that assist with building digital skills of SMEs, incentivise the adoption of digital technology in SMEs, supporting their digital transformation and aligning their growth processes with the

characteristics of the predominant sectors in the local authorities of the West Midlands. The West Midlands local authorities have to consider the policies that create the necessary financial, economic and education-related tools for SMEs in their quest to facilitate levelling up as many SMEs as possible to the most efficient and productive forms of growth.

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