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Mphahlele, Dorothy B.

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Identifying obstacles to the growth of new SMEs: A Factor Analysis Approach

Final Report submitted by

Dorothy B Mphahlele

Student Number: 569043

Cell: 072 467 4449

Email: mphahleleboity@gmail.com

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Supervisors:

Prof. Andres Merino

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Abstract

It is widely acknowledged that Small and Medium-Sized Enterprises (SMEs) are key drivers of economic growth and job creation in developing countries. It has also been established that new SMEs face common problems that arise as they grow and develop. These challenges stem from internal as well as external factors that can have an adverse impact on their survival and growth. The objective of this study was to identify the internal and external obstacles to the growth of SMEs. A questionnaire was used to collect data on factors affecting the growth of SMEs. The results of the questionnaire were analysed using Factor Analysis. Eight different factors were identified. These factors were further analysed to determine their impact on SMEs. The ranking of the factors in order of importance was as follows: lack of access to finance, overregulation, the economic environment, high competition, lack of internal resources, high input costs, lack of experience of the entrepreneur and poor service delivery. The report examines possible ways of mitigating the adverse factors identified and makes a series of recommendations to increase the likelihood of the survival of SMEs in the South African context.

Keywords: Small and Medium-Sized Enterprises (SMEs), obstacles to growth, environmental factors, entrepreneurs, South Africa

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Chapter 1- Introduction

1.1 Introduction

The importance of small and medium enterprises (SMEs) role in developing countries and the great contribution of SMEs to economic development has been researched extensively (Kelley, Singer, & Herrington, 2012; Leboea, 2017; Mahadea, 2008; Olawale & Garwa, 2010). SMEs contribute more to employment than large companies do in any country. Millinuex (1997) noted that this was the case even in established industrialised economies not just developing ones. The important role of the SME sector and its growth has become a core area for policy discussion in many countries. Governments are trying to articulate initiatives and strategies that promote and enhance the continued growth of SMEs.

This research is concerned with identifying the current obstacles to the growth of SMEs in South Africa. The understanding of these obstacles can be invaluable in order to address South Africa's development problems. SMEs are important contributors to the country's economy by creating employment, entrepreneurial and innovative skills and increasing exports (Kalane, 2015). In South Africa, SMEs make up 91% of formalised businesses, provide employment to about 60% of the labour force and their total economic output accounts for roughly 34% of GDP (STATS SA, 2018).

Factors which contribute to the failure of SMEs therefore also have a negative impact on the creation of employment, the growth of the economy, alleviation of poverty and the standards of living (Kelley et al., 2012). Their creation and sustainability, therefore, is vital to the economic growth of South Africa (Maas & Herrington, 2006).

However, new SMEs in South Africa often struggle to get to maturity. The failure rate is 75%, and most companies shut down within the first few years of existence (Lulalend, 2017). This creates significant challenges for South African entrepreneurs. An understanding of the obstacles to SME growth is therefore imperative in order to enhance and maintain their contribution to the economy (Xero, 2017).

1.2 Statement of the problem

The research problem focuses on the current obstacles that SMEs in South Africa are currently facing**.** Currently**,** South Africa is experiencing the highest rate of SME failure as compared to other developing countries (Lulalend, 2017). Although there have been a number of recent studies on SMEs (Leboea, 2017; Mahadea, 2008; Olawale & Garwa, 2010), SMEs are still the keystone of the economy of South Africa and are the response to alleviation of poverty and

unemployment (Curran, 2000; Davidsson & Delmar, 1997; Gibb, 2000; Hamilton & Leo, 2003; Robbins, Parker, Pantuosco, & Fuller, 2000; Westhead, 1995). It is therefore crucial that the main causes of obstacles be identified. This research seeks to understand and comprehend what are the obstacles to SMEs growth and to make recommendations on how to alleviate them.

1.3 Objective of the study

The objective of the study is to investigate the internal and external environmental obstacles to the growth of SMEs in South Africa. In order to do so, the research attempts to establish the relationship between growth and firm characteristics such as size, number of employees, ownership structure, age of the business and finance structure. From this analysis a series of recommendations can be derived to try to support SMEs and to increase their chances of survival.

1.4 Significance of the study

The value of the SME sector is recognised in economies world-wide, irrespective of the economy's developmental stage. The contribution towards growth, job creation and social progress is valued highly, and SMEs are regarded as essential elements in a successful formula to achieve economic growth (Kelley et al., 2012).

SMEs are important sources of employment and they also contribute to the reduction of poverty (Kelley et al., 2012). Research has found SMEs contributing 60% of GDP and employing more than 70% of the working population in low-income countries and employing more than 65% of the working population and contributing 55% of GDP in high-income countries (Fida, 2008). SMEs also contribute to national economies through tax revenues and by better distributing resources across all the sectors of the economy (Kongolo, 2010).

In South Africa, more than 98% of businesses are SMEs, they contribute significantly to the country's workforce across all sectors and responsible for a quarter of job growth in the private sector. And while South Africa's SMEs contribute less to GDP than other regions -39 percent versus 57 percent in the EU -there is no denying that this industry is an important economic driver (see Exhibit 1) (McKinsey&Company, 2020).

A thriving economy is primarily driven and impacted by the generation, success, and sustainability of an SME, and in South Africa, all stakeholders and political parties concur on the need of encouraging the formation of SMEs and fostering their growth (Sitharam, 2014).

Exhibit 1

SMEs are a vital component of economies, creating jobs and enabling inclusive growth

	Majority of businesses	Create private sector jobs	Meaningful share of the GDP	Enable inclusive growth
EU	99.8%	68%	57%	30%
G2	99%	65%	46%	25%
SA	98.5%	25.8%	39%	38%
	SMEs' share of total no. of businesses	SMEs' share of private sector workforce	SMEs' share of national GDP	SMEs owned by women

Source: Eurostat, Individual SME Authorities, Institute of Regional & Global Studies; European Commission - SME Performance Review (2015-16), IMF GDP Rankings (2015); Annual report on European SMEs; Small Business Institute South Africa

Taxation, i.e., taxes, is an indispensable element that characterizes the business climate. Taxes function as a system of political accountability (Ponorica & Al-Saedi, 2015). In South Africa, taxes are the main source of income for the government, and these funds are essential for financing poverty reduction, dealing with climate change, and improving infrastructure (Keen, 2012). The SME sector comprises approximately 165 000 registered businesses and accounts for approximately 36% of all corporate taxes collected in South Africa (DavisTaxCommittee, 2016), this is a practical benefit of SME sector in the South African economy.

According to Von Broembsen, Wood, and Herrington (2005) the probability of a new SMEs surviving beyond forty-two months is less likely in South Africa than in any other Global Entrepreneurship Monitor (GEM) sampled country. This implies that new SMEs will not be able to fulfil their developmental roles in South Africa (Von Broembsen et al., 2005).

Currently the global trends indicate that the SME sector shows constant growth and is increasingly being the principal employer in both the industrialized and emerging world. This is the case even in South Africa – currently SMEs are facing stagnation in the revenue generated and in employment creation. These two measures of SME success are significant and very pertinent in the South African context (Leboea, 2017).

Turnover is a good measure because the turnover that is being generated by SMEs contributes towards the wealth created in the South African economy. The employment measure is equally important, especially in the South African environment, as it is a gauge of South Africa's social stability and economic growth. A thriving SME sector is therefore fundamental to the future economic development of the South African economy (BusinessEnvironmentSpecialists, 2015).

1.5 Research question

What are the internal/firm specific and external/systemic factors affecting the growth of new SMEs in South Africa?

The research question seeks to gather a full understanding of what constrains the success of SMEs in South Africa. The findings of the research can potentially help to shape policies to better support entrepreneurs.

1.6 Assumptions, Delimitations and limitations

The main source of data for the study is the Gauteng province. The findings of this study may therefore not be generalizable to the whole of South Africa. However, the economic activity in Gauteng is higher than in other provinces, so the study should be able to capture the key factors affecting SMEs growth. Gauteng's contribution towards South Africa's Gross Domestic Product (GDP) is 35% (STATS SA, 2018).

1.7 Definitions

SMEs	Small and Medium Enterprises with less than 200 employees and have a maximum annual turnover of R64m. Source: National small business amendment Act (no. 26 of 2003).
Collateral	Assets used to finance debts Source: (Correia, Fernandez, Rodriguez, & Simmons, 2017)

Chapter 2- Literature Review

Classifying the problems and patterns of growth of SMEs in an organised way that is valuable to entrepreneurs appears at first a very difficult task. The capacity for SMEs growth and size varies widely (Lewis & Churchill, 1983). In the South African context SMEs are characterized by differences in firm size, number of employees, and a varied black ownership percentage.

Yet on closer examination, it has been shown that SMEs face common problems that arise as the firms grow and develop. These similarities can be arranged in a framework that can help increase our understanding of the business environment, and the problems that SMEs face ranging from small firms with two or three minimum-wage employees to larger SME firms with up to two-hundred employees and turnover of up to 64 million (Mazanai & Fatoki, 2011).

As there is no single data source containing all pertinent information at a given point in time, there are many alternative definitions utilized globally (Gale & Brown, 2013). In this study, the employment and revenue thresholds indicated above are used to define SMEs. For this study an SME is defined as an enterprise with less than 200 employees and have a maximum annual turnover of R64m.

For the management of SMEs, the understanding of the framework can assist in evaluating current challenges; for example, the need for an SME to stay up to date with evolving technology and constantly train employees in order to maintain planned growth. It can also help in anticipating unforeseen external economic conditions such as recession in the economy and high exchange rates (Olawale & Garwa, 2010).

In recent years, a few empirical studies on the growth stages of SMEs have emerged, providing important contributions to SMEs growth theory (Kazanjian, 1998; Smith, Mitchell, & Summer, 1985). However, most of these studies have defined growth stages a priori, using existing conceptualizations (McMahon, 1998). This section of the literature review will seek to explore the stages of growth that SMEs go through as they grow. This will serve as the basis for a broad conceptual framework for research and policy making regarding SMEs. The framework will capture the current state of scholarly understanding of the dynamics of SME growth stages.

2.1 Challenges faced by SMEs

Despite their substantial contribution to economic progress, global and international SME enterprises continue to encounter numerous obstacles. Due to the substantially more complicated and dynamic contexts that small businesses operate in, obstacles and problems that these businesses encounter are significantly greater than they were previously. To aid in the economic development of a country, it is essential to understand and have knowledge on the factors that influence the success or failure of SMEs (Sitharam, 2014).It has been estimated by Naicker & Rajaram (2018) that less than fifty percent (50%) of new and developing enterprises survive for more than five years and concur that the failure rate of SMEs internationally is between seventy percent (70%) and eighty percent (80%). In South

Africa, seventy five percent (75%) of SMEs do not grow to become established businesses, making the country's failure rate among the highest in the world (Olawale & Garwa, 2010).

Identifying and comprehending the numerous elements that contribute to business failure has been the subject of extensive research. SME failure, according to (Sitharam, 2014) can be ascribed to a variety of internal and external causes, as well as entrepreneurial culture (Everett & Watson, 1998) established and examined the three categories of risk that small business owners are susceptible to. Economic, industry, and firm-specific risks are seen as the primary factors of company success or failure. Furthermore, Everett and Watson (2008) concur that economic factors contribute to between thirty percent (30%) and fifty percent (50%) of small business failures.

Competition, government bureaucracy, foreign exchange rates, inflation, access to financial support and interest rates are other major elements influencing the performance of SMEs in South Africa (Naicker & Rajaram, 2018). The GEM (2014) report also identified government bureaucracy in South Africa as a significant barrier to SME activity and sustainability. The time delays in getting the required permits and trade licenses were among the major problems with government bureaucracy. Government departments were deemed inefficient in their execution of these responsibilities. In addition, it was suggested that there is a great deal of red tape involved in beginning and managing a business in South Africa, such as the copious amount of registration and compliance with the applicable Acts and regulatory organizations (SEDA, 2016).

2.2 Business growth

In this section, the concept of business growth will be explored. Growth can be demarcated in terms of well generated revenue generation, worth accumulation, and increases in terms of capacity of the firm (Gupta, Guha, & Krishnaswami, 2013). Qualitative features can also be used to measure growth like the position of the firm in the market, the quality of the products produced and the customer's goodwill (Kruger, 2004). Growth is a vital indicator of a thriving firm. There are many factors like high competition and a lack of experience which can affect the growth of the firm and differentiate it from a non-growing firm. To understand what business growth is, analysing how and why firms perform the way they do is vital. The concept of business growth and growth stages will therefore be examined in the following sections.

2.2.1 Defining business growth

There are many different definitions of business growth and ways of measuring this growth. Business growth is typically defined and measured, using absolute or relative changes in

sales, assets, employment, productivity, profits and profit margins. Sales data are usually readily available and business owners themselves attach high importance to sales as an indicator of business growth performance (Barringer, Jones, & Neubaum, 2005). Gilbert, McDougall, and Audretsch (2006) suggested how and where questions are important in the context of business growth. Growth is a function of the decisions the founder makes (Gupta et al., 2013), like how to grow internally or externally and where to grow in a domestic market or in an international market. Non-familiarity by the founder of the venture's industry can also hinder business growth.

There are many different theories that identify the main factors underlying business growth. One set of theories addresses the influence of firm size and age on business growth (Evans, 1987; Heshmati, 2001; Morone & Testa, 2008), and the second set deals with the influence of variables such as strategy, skills, and the experience of firm owners (Fazzari, Hubbard, & Petersen, 1988; Freel & Robson, 2004).

2.2.2 Growth Stages

Lewis and Churchill (1983) have developed a business growth model. As defined by them business growth can be described and understood on at least five stages as depicted below (Figure 1).

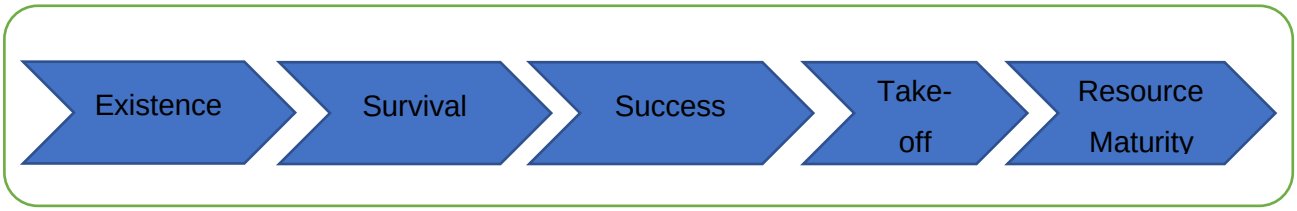


Figure 1: Stages of an enterprise growth (Churchill and Lewis 1983).

There are different theories that are used to describe growth stages which provide us with a financial insight into what it means to be a growing SME. Various researchers have written on SMEs obstacles to growth, yet not many have identified the association between the growth stages and the SMEs environmental factors. This section gives an insight into the dynamics of SMEs growth stages, including their distinguishing characteristics.

Existence is the first business growth stage. In this stage, the owner of the firm makes decisions that impact the number of customers to service and the way in which the product or service is delivered and also decisions as to how to finance the firm are made at this stage.

At the second stage, which is Survival, the business grows, and the owner feels the need to have additional capital to expand the business. Since the business activity is growing, the owner seeks to increase capital by taking up debt finance or by selling shares in the business. The goal of this stage is to reach a break-even point in which adequate cash flow can be maintained to meet day-to-day requirements including paying for repairs and replacements.

At the third stage, the Success stage, the firm begins to earn profits. There is enough capital to either invest in further business opportunities or continue with the same pace of growth. At this stage, the firm may start to grow its network, and to train employees to support the development of key competencies. These initiatives tend to drive the entrepreneur's long-term strategy and goals.

At the Take-off stage, the focus is on further growth, expansion, and seeking new opportunities. The organization becomes more formal in nature, and work is properly defined and delegated. Finally, at the Resource Maturity stage, the firm gives more emphasis to quality control, financial control, and creating a niche in the market.

The growth stages are useful as they can guide the decisions of entrepreneurs as they try to grow their businesses. However, managing the process of growth needs to take into account the existence of both the internal and external obstacles that need to be managed appropriately. In the following sections these factors are discussed in detail.

2.3 External environment

Beck (2007) argued that the performance of new SMEs can be influenced by systemic factors (external factors). These systemic factors or state variables are largely uncontrollable by new SMEs. These uncontrolled factors include the taxes and tariffs, exchange rates, social factors (crime, corruption and ethics) and the government policies (Beck, 2007).

SMEs in South Africa will need to prepare for economic challenges at least until 2020 (Mutize & Gossel, 2020). In 2018, South Africa entered a technical recession after the economy shrank for the first six months of 2018. In this economic environment consumers will continue to have their earning power eroded and will spend less, while competition will become more aggressive (BI, 2018)

Recession, which brings with it flailing consumer confidence and declining disposable incomes, is likely the toughest of challenges an SME will ever face. South Africa is currently

the slowest growing economy among the 44 biggest economies tracked by the Organisation for Economic Co-operation and Development (OECD) (Van Vuuren, 2018). The ever-widening gap between South Africa and both developed and emerging economies over the last five years is stark (Van Vuuren, 2018)

2.3.1 Government support

The quality of infrastructure can also affect the growth prospects of new SMEs especially in developing countries such as South Africa. Many developing countries suffer from a deplorable state of basic infrastructure like transportation, telecommunications and electricity supply. Poor electricity supply in South Africa has been a factor affecting the production and turnover of new SMEs (Mazanai & Fatoki, 2011)

Many SMEs have stated that they do not get enough support from the government. According to Maas and Herrington (2006) most new SMEs in South Africa are not aware of government efforts to assist them such as Khula Finance Enterprise (Khula) and the Small Business Development Agency (SEDA).

2.3.2 Crime and corruption

Standard Bank and Fujistu Siemens Computers (2009) sponsored a survey and found that SMEs owners are not following paths to grow their investments aggressively or neither advance above their competitors. This is because owners are directing their focus on operational matters due to increasing crime rate (Olawale & Garwa, 2010). More attention is being put on eliminating or minimising the likelihood of crime by investing in security measures which increases non-operating expenses. Gaviria (2002) argued that corruption is often associated to issues of over regulation such as red tape and onerous labour laws. These are some of the reasons why SMEs engage in corruption. (Transparency International 2017).

2.3.3 Economic variables and markets

Economic factors directly affect many areas of operations in the running of SMEs. Economic variables include the financial and regulatory policies of the state, inflation, interest rates and foreign exchange rates (Olawale & Garwa, 2010). These variables impact the demand for goods and services and hence the growth of new SMEs (Neneh, 2012).

Low growth rates (low consumption), and high interest rates, high inflation rates and declining exchange rates characterizes South Africa's current economic environment. For the first time

in seventeen years South Africa is officially in economic recession due mainly to the global economic meltdown. Purchasing confidence has fallen with SMEs showing reduced sales. Sales, revenues and the potential for new SMEs growing is affected by these factors (Siziba, 2018).

The price of fuel has continued to climb over the last years with increases in 2018 being particularly high. Annual fuel inflation, which incorporates prices for all forms of fuel, was 25,3% in July 2018, according to Stats SA's Consumer Price Index (CPI) release. In other words, motorists paid, on average, 25,3% more for fuel in July 2018 than they did in July 2017. This was the highest annual fuel inflation rate since December 2011. The most recent CPI puts the August 2018 rate at a slightly lower 23,6%. In September 2018, the price of inland 95-octane petrol inched higher to an all-time high of R16,08 per litre. Rising fuel prices have an impact SMEs. Consumers will be affected as the other goods and services they purchase increase in price to reflect the underlying increase in production costs.

2.4 Internal environmental factors

These are factors in a firm's environment that are largely controllable by the firm. The internal environment includes factors such as finance (especially internal finance such as owner's equity contribution and collateral), managerial competency of the owner, location, investment in information technology, costs of production and networking (Barbosa & Moraes, 2004).

2.4.1 Access to finance and ownership structure

Limitations of access to finance for SMEs are very common. Given their highly conservative nature, South African banks and lenders are more inclined to put resources in small businesses in their later stages of development. They are less likely to lend to start-ups. SMEs (Financial Services Regulatory Task Group 2014). For instance, FinScope Small Business Survey (2015) reported that SMEs in Gauteng and North West tend to have greater access to finance relative to SMEs in the other provinces. In Gauteng, the greater access to finance could partly explain why the province is home to about 48% of formal SMEs (DTI, 2008). SMEs in Mpumalanga and the Northern Cape, on the other hand, find it difficult to access finance. This is mainly due to the predominantly rural nature of these provinces (BER, 2016).

According to the South African GEM (2017) report, lack of access to finance and poor profitability, are among the main reasons for business discontinuance in South Africa (GEM, 2017). The GEM report also pointed to the fact that poor profitability, as a reason for discontinuance, was rising sharply. Typical hindrances towards SMEs obtaining finance include: inadequate collateral on the part of the entrepreneur, a lack of credit, the inability to

produce an acceptable business plan according to financial institutions requirements, poor market research and the absence of a viable business idea, and lack of access to vibrant markets (Financial Services Regulatory Task Group 2014).

The literature discussing internal obstacles to the growth of SMEs is quite rich. Levy (1993) research on the leather industry in Sri Lanka and the construction and furniture industry in Tanzania was one of the representative papers from the 1990s which investigated the obstacles SMEs faced. Levy (1993) identified three major constraints: access to finance, access to non-financial inputs, and high costs. The results showed that financial constraints are the main obstacle for firms which are smaller and have fewer establishments (Wang, 2016).

Lack of funds as an internal factor was closely analysed by Pissarides (1999) because he believed it is the main obstacle to SMEs growth. The researcher used survey data from the European Bank for Reconstruction and Development (EBRD). He stressed that lack of financing is an obstacle to SMEs growth in transitional economies due to emergent capital markets; where credit is given based on performance and thus local banks are more inclined to lend to state or larger entities.

Pissarides, Singer, and Svejnar (2003) used survey data from 437 CEOs of SMEs in Russia and Bulgaria to identify the biggest obstacles to SMEs growth. The highest rated constraints were chosen from variables identified. Four highest variables were chosen as “suppliers are not ready to deliver”, “access to land”, “finance problems” and “other production constraints”. Constraint on external finance showed to be the most significant variable as per the results, whereas variables like licensing did not appear to be as important a problem as expected.

More commonly, in a study by Gree and Thurnik (2003) 30 obstacles to SMEs growth were identified and finance appeared to be the utmost significant obstacle. Other important variables such as information technology, costs of production, supervision skills and/or procedures were also identified; the World Bank Enterprise Survey of emerging economies identified similar obstacles (Wang, 2016). An imperative part of the discussion was the association amongst firm characteristics and growth barriers. The role of different types of business ownership as a growth obstacle was the main part of the discussion. For example, Richter and Schaffer (1996) found that private businesses advanced quicker than public businesses, with public businesses pointing their focus on employment increase and not so much on efficient consumption of resources.

Yin (2012), a scholar from China concluded that public establishments are “too big to fail” and as such they are faced with less obstacles. In short, when analysing the business environment

in which SMEs operate the types of ownerships need to be considered (Wang, 2016). Additionally, Beck (2007) summarized the real indicator on SMEs financing constraints and presented that SMEs are highly probable than big businesses to be constrained by finance and other institutional obstacles.

Chavis, Klapper, and Love (2010) by means of using the World Bank Enterprise Survey 2006-2009, found that 31 percent of observed businesses viewed access to finance as the main constraint. Moreover, 40 percent were new businesses with industry experience of not more than 3 years. The relationship between the firm's age and its access to finance was further analysed. The observed outcomes disclosed that newer businesses were more dependent on informal financing rather than funding from banks. Funding from banks progressively grow with age, while informal finance progressively declined with age. New businesses were found to use personal assets as collateral more than it is for established businesses (Wang, 2016). However, new businesses in republics with stronger regulation and better borrowing capacity have less dependence on informal financial resources.

2.4.2 Management skills, location and networking

Managerial competencies are sets of knowledge, skills, behaviours and attitudes that contribute to personal effectiveness (Hellriegel, Jackson, Slocum, & Staude, 2008). Martin and Staines (2008) found that lack of managerial experience and skills are the main reasons why new firms fail. Location impacts on the market potential and growth opportunities of new firms. Geographical proximity to either critical buyers or suppliers produces a form of enhanced environmental scanning that enables new firms to more easily identify and exploit growth opportunities in the market (Dahl & Sorenson, 2007). Networking is very important to SMEs, both new and established, and can positively impact on their performance and access to finance.

Okten and Osili (2004) found that the formation of networks helps entrepreneurs to tap resources in external environments successfully. Networking can also be used to reduce information asymmetry in creditor/debtor relationships (Shane & Cable, 2002).

2.4.3 Labour

South Africa’s labour laws have been found to be a significant regulatory obstacle to business growth, particularly when it comes to retrenching staff (OECD, 2015). SMEs owners have found that once they have employed workers, the law makes it difficult to lay the workers off if

the business can no longer afford to keep them or if they prove to be unproductive. Labour laws do not provide for cyclical economic downswings for SMEs (Herrington et al., 2015).

South Africa's official unemployment rate is on the increase. In the past 10 years (2008–2018), the unemployment rate has increased from 21,5% to 28,0% (STATS SA, 2018). Unemployed individuals are persons who are not employed and are taking steps to look for a job or to start a business and were available to take up a job when offered. Now, the main challenge lies with those persons who have been unemployed for longer periods and still do not find any form of employment.

Long-term unemployment refers to people who have been unemployed for 12 months or more. The long-term unemployment rate shows the proportion of persons in long-term unemployment among all unemployed persons. According to the Quarterly Labour Force Survey, Q3: 2018, released by Statistics South Africa, 6,2 million South Africans are now unemployed, and 4,3 million of them have been unemployed for a year or longer. Between Q3: 2008 and Q3: 2018, the number of persons who were in long-term unemployment increased by 1,7 million, from 2,6 million in 2008 (STATS SA, 2018).

2.4.4 Investment in information technology and costs of production

Investing in information technology and staying updated with information technology is becoming significant to all businesses. For the development of new SMEs, keeping up with technology is very crucially and plays an important role. Technology maximises business opportunities and helps in evolving a multi-pronged strategy. The difficulty that new SMEs have with accessing capital may cause a hindrance in purchasing necessary technology (Olawale & Garwa, 2010).

Smallbone, Baldock, and North (2003) found that, new SMEs can be affected by costs of production. Rising input costs in South Africa particularly the cost of fuel and the cost of power supply can hinder growth. Close inspection of costs of production is essential in order to lessen wastage and control the most efficient means of production (Phillips & Sipahioglu, 2008).

Even though, using digital technology is not well considered by SMEs in some countries, utilising the required information and communication technology resources gives SMEs the potential to grow their businesses and expand them nationally and internationally. It may not be the primary factor in a company's success, but it is one of many factors that increases the chances of survival, success and competition for SMEs (Parrilli & Elola, 2012).

Additionally, it gives SMEs the chance to develop relationships with businesses on a national and international scale, which is another advantage of using information technology resources in the SMEs sector. In an Australian study, some organizations claimed that while adopting information technologies would be expensive during the installation phase, doing so would have various strategic advantages if done properly. Some of these advantages include lower operational costs and potential inclusion in strategic plans and processes (Love & Irani, 2004).

In brief, a substantial amount of previous research has examined the significance of the role of SMEs in developing nations and their substantial contribution to economic development. However, SMEs need to be studied to better understand how to improve business productivity and outcomes.

Currently**,** South Africa is experiencing the highest rate of SME failure as compared to other developing countries (Lulalend, 2017). Although there have been a number of recent studies on SMEs (Leboea, 2017; Mahadea, 2008; Olawale & Garwa, 2010), SMEs remain the lifeblood of South Arica's economy and also the most at risk of survival and success (McKinsey&Company, 2020).

The importance of SME sector within the South Africa economy led to the research question: What are the internal/firm specific and external/systemic factors affecting the growth of new SMEs in South Africa? The data was collected from SMEs based mainly in the Gauteng Province.

Chapter 3 - Methodology

3.1 Research method

The failure rate of SMEs in Gauteng is exceedingly high, with a significant number of them failing to evolve into established firms (Olawale & Garwa, 2010). This study used a quantitative research approach to answer the following research question: What are the internal/firm specific and external/systemic factors affecting the growth of SMEs in South Africa? Data was collected through a questionnaire. Creswell (2019) describes qualitative research as "explaining of events by gathering numerical data and analysing it using mathematically based methodologies (particularly statistics)". Additionally quantitative research is defined as social research that uses empirical techniques and empirical findings (Cohen & Manion, 1980).

In this study, quantitative research is appropriate because a pragmatic approach to the research was used, furthermore, quantitative research provides results that may be condensed to statistics, allowing for statistical comparisons across different groups. It is precise, definitive, and standardized, and it monitors the frequency of occurrence, actions, and trends (Sukamolson, 2007) Factor analysis was used to determine the factors affecting the growth of SMEs and further statistical analysis was carried out to interrogate differences in terms of the characteristics of the SMEs. Factor analysis is a data reduction technique used to reduce a large number of variables to a smaller set of underlying factors that summarize the essential information contained in the variables (Onwuegbuzie & Leech, 2005).

3.2 Measuring Instrument

The literature review identified several important aspects that could be studied in order to improve the survival rate of SMEs. In order to identify obstacles to the growth of new SMEs, internal and external factors can be explored. It is appropriate as such after identifying the obstacles to consider the firm's characteristics such as type of legal entity, firm finance structure, number of employees, firm/industry sector, company size, percentage of black ownership and years in operation.

A questionnaire was used to capture information on factors affecting SMEs growth. The benefit of using questionnaires is that they can collect data more quickly, cheaply, and effectively for the researcher (Kothari, 2004).

Most empirical research on SMEs is based on surveys that analyse SME failure, as this type of data collecting is typically employed for economic and commercial surveys (Gangl, Kirchler, & Hofmann,

2014). As a result, a questionnaire was determined to be most appropriate for the purposes of this study.

This questionnaire has been used in prior research in South Africa (Olawale & Garwa, 2010). A copy of the questionnaire is included in the Appendix A.

The structure of the questionnaire consists of two sections, namely the firm characteristics and the internal and external factors affecting SME growth. The questionnaire's design has incorporated information that was highlighted in the literature review in section 2.3 as follows:

3.2.1 Section A – Firm Characteristics

Section A contains firm characteristics. The response format consists of a range of options for each item. Respondents were asked to provide answers for the following items: in what industry/sector did they operate, firm size, number of employees, percentage of black ownership, funding structure (debt/equity) and year in which operations started.

3.2.2 Section B – Internal and External factors affecting SMEs growth

Section B was used to collect responses about firm specific and systemic factors affecting SMEs growth. A five-point Likert scale was used to measure the extent of both internal and external factors affecting SMEs growth. A five-point Likert scale is reliable and simple for the respondents to complete (Jenkins & Taber, 1997). As noted by Olawale and Garwa (2010), Likert scale are one of the most frequently used numerical scales to measure attributes and behaviours in organizational research. This section of the questionnaire included an open-ended question in which the respondents were asked to further comment on the challenges that they face as SMEs.

3.2.3 Participants and sample size

The population for this study are all the SMEs operating in South Africa. The data was collected by approaching companies listed in the database of the National Financial Literacy Association (NFLA). NFLA is an organisation that provides development support to SMMEs and Co-operatives, and handhold them to grow and become sustainable businesses through Procurement and Investment Readiness as well as Entrepreneurship and Financial Literacy mentorship. The database contains information on more than 2000 firms.

There is no shortage of recommendations in the literature regarding the minimum sample size to use when conducting factor analysis. Suggested minimum range from 3 to 20 times the number of

questions in the questionnaire (Mundfrom, Shaw, & Lu Ke, 2005). As the questionnaire contains 33 questions then the absolute minimum of responses for this research paper is 99 responses.

3.3 Research procedure

A pilot study was carried out first. The pilot study involved sending the electronic questionnaire to five firms. The questionnaire was put in an electronic format using QuestionPro. Feedback from these five firms was sought to determine whether any aspects of the questionnaire needed to be modified. Once this process was completed it was decided to include an extra item under the section company size. Start-up was added as an extra option. The revised questionnaire was sent to all the companies listed in the NFLA database. The advantages of using online questionnaires are that the response time is shorter and that the data can be collected into a central database, therefore saving time and resources associated with the data capturing process (Janet, Steve, & Healey, 2001).

3.4 Statistical analysis

In this study, IBM's Statistical Package for the Social Sciences (SPSS) version 25 was used to analyse the data. Descriptive statistics were calculated, and a factor analysis was also performed. Before performing the factor analysis, the Cronbach's alpha coefficient was calculated to determine the internal consistency of the questionnaire. The Cronbach's alpha was used as a measure to ensure reliability.

Data analysis can be difficult if the data contains a large number of internal and external variables related to the factors affecting to the growth of new SMEs. Factor analysis is used to overcome this obstacle by grouping together variables that are highly correlated into independent factors. According (Onwuegbuzie & Leech, 2005). factor analysis is a data reduction technique used to reduce a large number of variables to a smaller set of underlying factors that summarize the essential information contained in the variables. For this study, factor analysis was performed to extract all the factors present in the data. The factors were rotated using the varimax rotation approach. Once the factors were extracted, the factor loadings for each factor were interpreted in detail. The interpretation of each factor was carried out with reference to the literature on the determinants of SMEs growth.

After the factors were identified, Analysis of Variance (ANOVA) was used to test how firm characteristics (the independent variable) were related to the factors identified (dependent variable).

3.5 Reliability and Validity

Prior to running the factor analysis, tests were carried out to check that all the criteria were met to run the statistics. To determine the number of factors that were extracted, the eigenvalue rule was used. Only factors that had eigenvalues greater than one were retained. The eigenvalue of a factor represents the amount of the total variance explained by that factor. Components with eigenvalue of greater than one were retained for further investigation (Tabachnick & Fidell, 2013).

Chapter 4- Statistical analysis

This section includes the results obtained from the statistical analysis. Descriptive statistics was used to analyse the firm characteristics of the companies that were sampled. The variables analysed were legal entity type (TYPE), company size based on turnover (SIZE), number of employees (NUM), percentage of black ownership (OWN), how the company is financed (FIN), year in which operation commenced (YEAR), and province in which the company is located (PROV).

Thereafter Factor analysis was done to identify the obstacles to SME growth in relation to the characteristics of the companies sampled. The first test that was carried out was to check for the internal consistency of the 33 questions asked in the questionnaire by calculating the Cronbach's alpha. The results of the Cronbach's alpha are shown in Table 8 below. Analysis of Variance (ANOVA) was used to test whether each of the firm characteristics that were captured differed in terms of the relevance of a particular factor in relation to that characteristic.

The number of responses collected through QuestionPro were only 33 responses. This was despite sending several reminders by email to the firms in the NFLA database. As the electronic responses were not enough, it was decided to print out copies of the questionnaire and to take the questionnaires to the training session organised by the NFLA. Using this approach (print outs), 25 further questionnaires were obtained. An extra 49 questionnaires were obtained by the researcher by visiting businesses based in central Johannesburg. Overall, 107 responses were obtained. Out of these, three questionnaires were not fully completed leaving 104 questionnaires that could be used for the statistical analysis. The responses of the paper questionnaires were captured in Excel, and they were merged with the responses captured electronically.

4.1 Descriptive statistics

Descriptive statistics were used to analyse the firm characteristics of the companies that were sampled. Appendix B shows how each of the questions in the questionnaire were coded. Appendix C contains the summary of the statistics for each of the firm characteristics. Section 4.1.1 below

gives further details regarding the data collected in terms of firm characteristics. The mean scores and standard deviations for each of the 33 questions related to the factors affecting growth are shown in Appendix G. The range of values is from 0 to 5. The closer the mean of a particular question to 5, the more important that question was rated by the respondents.

4.1.1 firm characteristics

The variables analysed were legal entity type (TYPE), company size based on turnover (SIZE), number of employees (NUM), percentage of black ownership (OWN), how the company is financed (FIN), year in which operation commenced (YEAR), and province in which the company is located (PROV).

The results of the firm characteristic (TYPE) show that most respondents were Pty (Ltd) companies. 74% of the sample are respondents from private companies followed by 7.7% of the sample which are partnerships. The least represented type of company were cooperatives with only 1.9% of the sample. This shows that a huge part of the sample consists of SMEs from private companies.

Table 1- Type of entity

		Frequency	Percent
Valid	Sole proprietor	7	6.7
	Partnership	8	7.7
	CC	4	3.8
	Private company	77	74.0
	Public company	6	5.8
	Co-op	2	1.9
	Total	104	100.0

In terms of company size, 56.7% of the SMEs in the sample generated an annual turnover of less than R1m, followed by 20.2% with a turnover of R1m but not greater than R10m.

Table 2- Size of the SME

		Frequency	Percent
Valid	Start-up	13	12.5
	Less R1m	59	56.7
	R1m to R10m	21	20.2
	R11m to R29m	7	6.7
	R30m to R64m	4	3.8
	Total	104	100.0

The number of employees showed that the majority of the SMEs in the sample had between one and five employees. This represents 47.1% of the sample.

Table 3- Number of employees

		Frequency	Percent
Valid	1 to 5	49	47.1
	6 to 20	34	32.7
	21 to 50	11	10.6
	51 to 200	10	9.6
	Total	104	100.0

In terms of ownership, 75% of the sample are 100% black owned firms.

Table 4- Black ownership %

		Frequency	Percent
Valid	0%	15	14.4
	1%-51%	4	3.8
	52%-99%	7	6.7
	100%	78	75.0
	Total	104	100.0

With regards to the finance structure, the majority of the SMEs in the sample are financed through equity i.e. 51% of the sample, followed by finance through equal proportions of debt and equity at 27.9% of the sample. Interestingly only 21.2% of the sample is financed mostly by debt. This may point out to the difficulty of securing debts finance for SMEs.

Table 5- Access to finance

		Frequency	Percent
Valid	Mostly debt	22	21.2
	Mostly equity	53	51.0
	Equal proportions	29	27.9
	Total	104	100.0

Most of the firms in the study were stated less than five years ago, 59.6%. Twenty-four firms representing 23.1% of the sample were started between 10 to 6 years ago and only 18 firms were older than 10 years.

Table 6- No. of years in operation

		Frequency	Percent
Valid	more than 10 years	18	17.3
	10 to 6 years	24	23.1
	5 to 1 year	62	59.6
	Total	104	100.0

Lastly most respondents were located in the Gauteng province, representing 94.2% of the sample. This was followed by 2.9% in the Western Cape Province. Only respondents from 5 provinces out of the 9 provinces in South Africa participated in the survey. Eastern Cape, Northern Cape and Kwa-Zulu Natal representing 1% of the sample.

Table 7- Province

		Frequency	Percent
Valid	GP	98	94.2
	WC	3	2.9
	EC	1	1.0
	NC	1	1.0
	KZN	1	1.0
	Total	104	100.0

4.2 Factor analysis

Exploratory factor analysis was done to identify the obstacles to SME growth in relation to the characteristics of the companies sampled. The first test that was carried out was to check for the internal consistency of the 33 questions asked in the questionnaire by calculating the Cronbach's alpha. The results of the Cronbach's alpha are shown in Table 8. The summated score revealed a high Cronbach's alpha of 0.893 which represents a high level of internal reliability for this study.

Reliability Statistics: Table 8

Cronbach's Alpha	N of Items
0.893	33

Secondly each of the items in the questionnaire were analysed to see if the overall Cronbach's alpha coefficient could be improved by dropping a question from the questionnaire (Appendix D). The results show that the removal of any question would lower the alpha value slightly (except for questions on Red tape and Venture capital with marginal higher alpha). Therefore, it was decided not to delete any of the questions from the analysis.

Before Factor analysis can be performed the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and the Bartlett test must be calculated. These results are shown in Table 9. These results revealed the KMO is close to 1 (0.753) and larger than 0.5 thus factor analysis can be applied as there is enough variation in the sample. The Bartlett test rejects the null hypotheses (sig <0.05) of no relations between variables (identity matrix) thus factor analysis can be conducted as enough correlation exists between the variables.

KMO and Bartlett's Test: Table 9

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.753
Bartlett's Test of Sphericity	Approx. Chi-Square	1971.199
	Df	528
	Sig.	0.000

The results of the extraction of the factors are shown in Appendix E. As can be seen eight factors with initial eigenvalues >1 were identified. The cumulative % of variance explained was 67.98%. Once the factors were obtained, they were rotated using varimax rotation. Each factor was then analysed to identify the questions that loaded in each of them. Table 10 shows the questions that loaded in each factor with a correlation greater than 0.45.

Table 10: Factors extracted

Factor 1	Lack of internal resources for growth • lack of networking • lack of business skills • shortage of skilled labour • lack of training • lack of personal transport and • lack of long-term strategy and direction
Factor 2	Economic environment • High exchange rate • High inflation rate • High interest rate • Recession in the economy • Corruption • High taxes and tariffs

Factor 3	Poor service delivery • Crime • Poor electricity supply • Poor roads • Poor water supply • Political instability
Factor 4	Access to finance • Access to finance • Lack of collateral • Lack of owner's contribution • Bad credit record
Factor 5	High competition • Location of business • inadequate demand and • high competition
Factor 6	Entrepreneur's experience • lack of experience relevant to the venture and • founder not being familiar with the industry
Factor 7	Input costs • High production cost • High transport costs
Factor 8	Over regulation • Red tape and over regulation • Onerous labour laws

Factor 1: Lack of internal resources for growth

Six items loaded onto Factor 1. The variables that loaded in this factor were lack of networking, lack of business skills, shortage of skilled labour, lack of training, lack of personal transport and lack of long-term strategy and direction. This factor contains a combination of internal factors that can hinder growth, as well as the lack of capacity to formulate a long-term strategy. These items are interrelated, and they talk to the capacity of the business to add value. A framework that can explain how these items relate is the business model canvas developed by Osterwalder (2000). In the model there is a link between key partners, key resources, key activities and the value proposition of the business. The lack of key partners by entrepreneurs may be the result of poor networking skills. A lack of key

business skills and a lack of training as well as a lack of skilled labour can lead to an inability to craft and exploit a value proposition that can make the business successful.

This factor points to the need to provide employees with the right knowledge and skills. In other words, providing the correct skills and training can increase employee's ability to discharge their responsibilities. Entrepreneurs should also find suitable employees for each job who possess the relevant qualifications and experience. Doing this is important because most SMEs do not have enough resources to train their employees. Once these employees are found it will be important to keep them motivated. One of the responses that was obtained from the open-ended questions at the end of the questionnaire mentioned that "the employees/ team members need to be motivated". Keeping the employees or the team motivated will drive the employees to apply their skills, knowledge and expertise with confidence.

A lack of networking hinders entrepreneurs because a formation of networks helps entrepreneurs to tap resources in external environments successfully (Shane & Cable, 2002). Further networking assists in setting up the company's long-term strategy and direction. A lack of business skills is blamed for strategy failures if labour skills are a prerequisite for strategic plans to be delivered as planned. A high rate of SME failure or inability to grow is primarily due to an entrepreneur's lack of business training. The other respondent stated that "a lack of skills and strategy is the biggest problem facing SMEs". The aforementioned six items (obstacles) point towards an inability of SMEs to formulate and deliver a value proposition. This factor can therefore be called "lack of internal resources for growth".

Factor 2: Economic environment

Upon inspection of the rotated factor matrix for factor 2 the following items showed high levels of correlation with the factor: High exchange rate, high inflation, high interest rate, recession in the economy, corruption and high taxes and other tariffs. These items are interrelated, and they talk to the capacity the external environment has on SMEs and its ability to hinder business growth. The interrelation between economic conditions and the failure of businesses to grow has been shown in the study by (Khumalo, Mutambara, & Assensoh-Kodua, 2017). The researcher mentioned that "the stability of economies all over the world is largely a function of inflation and interest rates.

There has been a debate about the impact of the relation between inflation and interest rate on the general behaviour of a given economy. Ayub, Rehman, Iqbal, Zaman, and Atif (2014) suggested that there is a positive relationship between inflation and the interest rate in any economy all over the world. This notion is based on the understanding that both variables are money driven and affect

both the demand and supply side of an economy, as in the case of debtors and creditors (Semuel & Nurina, 2015).

In order to support SMEs, the government needs to take into account the impact of its monetary policy. Monetary policy can be utilised as an instrument for creating a more smooth flow of money in an economy (Khan & Satter, 2014). Monetary policy can be an efficient instrument because it has a direct impact on money supply and can therefore influence inflation rates and the exchange rate.

During an economic recession, SMEs are often hit the hardest. Budget constraints, reduced spending power and inadequate preparedness for a recession can make it impossible for a small business to survive. All these items relate to external obstacles affecting SME growth and therefore the factor has been named “economic environment”.

Factor 3: Poor service delivery

The third factor loaded the following items: crime, poor electricity supply, poor roads, poor water supply and political instability. Generally, Water is critical to economic growth, social development as well as environmental sustainability (Machete 2011). This is because it is used for various purposes, particularly as a key input or key resource in the production process, making it essential for all industry types such as agriculture, manufacturing and service provision (Kujinga, Vanderpost, Mmopelwa, & Wolski, 2014).

In a study on the performance and competitiveness of SMEs in the manufacturing Sentsho et al. (2009) pointed out that most of the firms cited the cost and unreliable supply of water and electricity as one of the main constraints inhibiting their competitiveness. The high cost and unreliable supply of these utilities contribute to lost output, increase business uncertainty, and reduce competitiveness (Nwankwo, 2000; Obokoh & Goldman, 2016).

South Africa is currently experiencing a shortage of capacity to generate electricity which is resulting in load shedding. Minister of Public Enterprises Pravin Gordhan has said that the department and National Treasury will assist embattled power utility Eskom to fast-track the procurement of "essential goods and services" required to urgently repair generating units at local stations (fin24). Most SMEs do not have back-ups such as generators. This has affected a lot of SMEs in providing their services efficiently.

All the items that loaded in this factor are linked to the capacity of the government to provide the environment for businesses to be able to operate; hence it has been called ‘poor service delivery’.

Factor 4: Access to finance

Four items loaded onto Factor 4. The items are access to finance, lack of collateral, lack of owner's contribution and bad credit record. Lenders and South African financial institutions mostly do not lend money to SMEs in their start-up phase. Reasons for this include: bad credit record, not enough collateral by the entrepreneur and the entrepreneur not having a viable business idea. SMEs should show lenders that even at their early development stage, there is a viable vision that will allow the firm to survive, take-off and succeed. One of the responses that was obtained from the open-ended questions at the end of the questionnaire mentioned that "SMEs cannot access cheap finance for projects that are viable". This shows that there is a lack of confidence in SMEs ability to repay debt, and a lack of support by financial institutions. This was also mentioned by another respondent in the questionnaire.

An SME with a bad credit score will always struggle to access finance from external sources. Access to finance was ranked the highest obstacle to SME growth with a mean score of 4.45 for the items that loaded in this factor. See Appendix G. Lack of collateral was ranked second most important with a mean score of 4.32.

Factor 5: High competition

The three items loaded onto this factor includes location of business, inadequate demand and high competition. These items are concerned with demand linked to customer preference and willingness to remain a customer to that SME. The business location has an impact on the demand and also place a huge role on the level of competition faced by the business. If entrepreneurs can network and have partners, they will know the relevant locations to situate their businesses to grow. Market studies can assist entrepreneurs in beating their competition and increasing demand for their products. Well established key activities such as engaging participants (customers) will help the business to grow. Customer relationships is of paramount importance in this factor. Engaged and satisfied customers will stay faithful to the supplier because of a value proposition they have attained.

One of the responses that was obtained from the open-ended questions at the end of the questionnaire mentioned that "the main challenge for SMEs is the inability to identify the target market and subsequent customer acquisition". For SMEs to overcome these obstacles advertising channels such as social media channels can be used. In this way customers will be more familiar with the business location.

Factor 6: Entrepreneur's experience

Two items loaded on this factor. There is lack of experience relevant to the venture and founder not being familiar with the industry. This factor includes items that are concerned with the entrepreneur's experience. The entrepreneur must be experienced enough and familiar with the market in order to effectively assist where employees may be struggling. The business canvas model can help with this factor. The entrepreneur must identify the venture's cost structure. Sufficient research needs to be conducted to familiarise the entrepreneur with his venture. The entrepreneur must know the firm characteristics, behaviour patterns, the key customers' demographics and its competitors. Identifying the ventures key resources, key activities, key partners and value propositions may give the entrepreneur capacity to know the business better. There is a correlation between these two variables.

Factor 7: Input costs

The two items that loaded on this factor were high production costs and high transport costs. Input costs are the set of costs incurred to create a product or service. Input costs measurements determines the ability of the business to survive. As a firm increases its output, it will demand more of each of its inputs, which may lead to higher prices for some inputs. A firm that's experiencing high input costs will try to pass on those costs to its customers, and this in turn may make the business less competitive.

In terms of the transport costs in March 2019, South Africa experienced an increase in fuel price. According to Dawie Maree, head of marketing and Information at First National Bank (FNB) fuel price increases will hit producers hard as input and distribution costs will go up. The increase will therefore further squeeze producer margins. Eventually the impact of the increase will be inflationary as the costs of the producer will be passed on to the consumer ("FTW Online [online] Available; http://www.ftwonline.co.za/article/178828/Fuel-price-increase-to-hit-farmers-and-SME-businesses-hard/54 [Accessed: 26 March 2019]," 2018).

Factor 8: Over regulation

This factor includes items that are concerned with government laws and regulations. The items are red tape and over regulation, as well as onerous labour laws. A respondent from the questionnaire stated that "over regulations are getting more and more onerous, each with unique costs and allocation needed for time and human resources". This together with a very slow growing economy makes it hard for the SMEs to growth.

4.3 Summary of the importance of obstacles

Further analysis identified the order of importance of the obstacles encountered by SMEs, that is, which factors respondents rated more important than others. Mean scores were calculated for the different questions that loaded on each factor. The results of the summary of obstacles are shown in Table 11 in order of importance according to the average mean scores.

Results show that lack of access to finance is the main obstacle. This may be due to the owner's inability to borrow money from banks because of a bad credit record or lack of collateral. Over Regulation ranked second with an average mean score of 3.84. This shows that SMEs find over regulation particularly challenging and as such the government needs to assist SMEs by trying to reduce the amount of regulations that they have to comply with.

Economic environment ranked third with a mean average score of 3.81. This shows that the external environment does affect businesses. An adequate preparedness for these uncontrolled events can reduce their negative impact on businesses and thus ensure their survival. High competition ranked fourth with an average mean score of 3.75. Competition can lead to uncertainty about the future of the business, and companies need to find effective ways to compete in order to grow.

Lack of internal resources for growth ranked number five with a mean score of 3.58. With regard to this factor, business owners need to apply themselves more, be creative and identify the individuals and the systems that will allow them to add value to customers. Input cost, entrepreneur's experience and poor service delivery ranked the least important factors. SMEs still need to consider these factors because they may cause SMEs to fail if overlooked.

Table 11: Summary of obstacles	
Factor	**Mean**
F4: Access to Finance	3.95
F8: Overregulation	3.84
F2: Economic environment	3.81
F5: High competition	3.75
F1: Lack of internal resources for growth	3.58
F7: Input costs	3.55
F6: Entrepreneur's experience	3.25
F3: Poor service delivery	3.24

4.4 ANOVA

Analysis of Variance (ANOVA) was used to test whether each of the firm characteristics that were captured differed in terms of the relevance of a particular factor in relation to that characteristic. The firm characteristics that were measured in this study were as follows: type of legal entity, size of the company based on turnover, number of employees, percentage of black ownership, access to finance, number of years in operation and the province in which the company is located. The ANOVA assessed whether each of the eight factors identified in the factor analysis influenced a particular aspect of the firm characteristics that were measured.

Type of legal entity

A one-way analysis of variance was conducted to evaluate if there were significant differences in relation to the Factors identified and the type of legal entity sampled. The results of the ANOVA showed that only for Factor 6, Entrepreneur's experience, there were significant differences Between the Groups ($p < 5\%$), $F(5, 98) = 3.02$, $p=0{,}014$.

Table 12: ANOVA - Type		Sum of Squares	Df	Mean Square	F	Sig.
F6	Between Groups	9.989	5	1.998	3.025	0.014
	Within Groups	64.723	98	0.660		
	Total	74.712	103			

The analysis of the differences between groups identified that there is a significant difference between Public companies and Co-operatives ($p=0.02$), as well as a significant difference between Public companies and Sole Proprietors ($p=0.09$). Factor 6 relates to entrepreneur's experience and in both cases the factor was more important for the public company. This may imply that in the case of the public companies sampled there is still reliance for direction and growth on the founders of the firm, even though the ownership of the company is now more spread through a large number of shareholders.

The analysis also identified a significant difference between Co-operatives and Partnerships ($p=0.066$). In this case the factor is more relevant to Partnerships. In partnerships all the partners share on the profits or losses of the business, hence the individual competence of each partner is paramount in order to ensure the success of the partnership.

SME Size

A one-way analysis of variance was conducted to evaluate if there were significant differences in relation to the Factors identified and the size of the companies sampled. The results of the ANOVA showed that only for Factor 8, overregulation, there were significant differences Between the Groups ($p < 10\%$), $F(4, 99) = 2.24$, $p=0{,}070$.

Table 13: ANOVA - Size		Sum of Squares	df	Mean Square	F	Sig.
F8	Between Groups	6.39	4	1.60	2.24	0.070
	Within Groups	70.70	99	0.71		
	Total	77.09	103			

Further analysis revealed there is a significant difference between Start-ups and Firms with less than 1mn of turnover ($p=0.071$). Factor 8 relates to overregulation hence the analysis implies that government regulations are affecting more start-ups than firms which are already generating turnover. The implication of this finding is that start-ups need to be supported more heavily so that they can establish themselves and thus can become viable. This support should be in the form of less onerous regulations that they have to comply with. As entrepreneurs are struggling to launch their businesses, they should not have to worry also about having to comply with all the red tape required by government from new businesses.

Percentage of black ownership

A one-way analysis of variance was conducted to evaluate if there were significant differences in relation to the factors identified and the percentage of black ownership. The results of the ANOVA showed that only for Factor 5, High Competition, there were significant differences Between the Groups ($p < 5\%$), $F(3, 100) = 3.98$, $p=0{,}010$.

Table 14: ANOVA - Percentage of black ownership		Sum of Squares	df	Mean Square	F	Sig.
F5	Between Groups	8.679	3	2.89	3.983	0.010
	Within Groups	72.643	100	0.726		
	Total	81.322	103			

Further analysis revealed there is a significant difference between SMEs with 1%-51% black ownership and firms that are wholly black owned (p=0.027). Factor 5 relates to high competition, and inadequate demand, hence the analysis implies that SMEs that are wholly black owned consider this a bigger obstacle to growth than firms that have a black ownership percentage of 51% or less.

Finance structure

A one-way analysis of variance was conducted to evaluate if there were significant differences in relation to the Factors identified and the finance structure of companies sampled. The results of the ANOVA showed that Factor 5, High Competition, and Factor 6, Owner's Experience, had significant differences Between the Groups.

Table 15: ANOVA – Finance Structure		Sum of Squares	df	Mean Square	F	Sig.
F5	Between Groups	3.974	2	1.99	2.60	0.080
	Within Groups	77.35	101	0.77		
	Total	81.32	103			
F6	Between Groups	4.31	2	2.15	3.088	0.050
	Within Groups	70.41	101	0.70		
	Total	74.71	103			

Factor 5

Further analysis revealed there is a significant difference between SMEs financed through debt and SMEs financed through equal proportions of debt and equity (p=0.064). Factor 5 relates to high competition. The analysis found that it is more of challenge if the firm is being financed by debt than by equal proportions of debt and equity, if it is in a very competitive sector. The higher the completion the harder it may be to generate enough profits to be able to repay loans.

Factor 6

Further analysis revealed there is a significant difference between SMEs financed through equal proportions of debt and equity and SMEs financed through equity (p=0.039). Factor 6 relates to entrepreneur's experience. The results show that this factor is more important for the firms that are being financed by equal proportions of debt and equity. This may imply that there is a concern in that if the owners are not experienced and therefore not able to make the business profitable there can be potential problems for the repayment of loans.

Years in operation

A one-way analysis of variance was conducted to evaluate if there were significant differences in relation to the factors identified and the years companies have been in operation. The results of the ANOVA showed that only for Factor 7, Input Costs, there were significant differences Between the Groups ($p < 10\%$), $F(2, 101) = 2.97$, $p=0{,}056$.

Table 16: ANOVA - Years in operation		Sum of Squares	df	Mean Square	F	Sig.
F7	Between Groups	3.91	2	1.95	2.97	0.056
	Within Groups	66.39	101	0.66		
	Total	70.23	103			

Further analysis revealed there is a significant difference between SMEs in operation for more than 10 years and SMEs in operation between 10 to 6 years ($p=0.048$). Factor 7 relates to input costs. The analysis points to the fact that this factor is more important for SMEs that have been operating between 6 to 10 years than for the older ones. These companies may be struggling to establish themselves or they may have to cope with the extra complexity that comes from growing the business beyond a certain point. As the firms grow controlling costs thus becomes more relevant to them.

Chapter 5- Conclusion

5.1 Conclusion and recommendations

This paper attempted to identify the core obstacles to SMEs growth and their causes as perceived by SMEs. The collection of data was obtained through a questionnaire. The most common profile of the respondents was as follows: most firms were private companies, had a turnover of less than R1 million, employed between 1 and 5 employees, were 100% black owned, were financed mostly by equity and had less than five years of operation. Factor analysis was used to identify key factors affecting SMEs growth and eight factors were identified. The mean average of the items that loaded on each factor were calculated to rank the factors in order of importance. The range of the means for the eight factors were 3.95 to 3.24. This means that respondents on average agreed that each of the factors identified has an impact on SMEs. The five most significant factors as perceived by SMEs were access to finance, overregulation, the economic environment, high competition and a lack of internal resources.

The finance factor ranked the highest and this implies that access to finance has been an on-going problem for SMEs. SMEs can be supported through training to ensure that they are able to prepare business plans in line with the expectations of the providers of finance. The government can also potentially help by making soft loans available to start-ups.

The second key factor is overregulation. This is also an issue for SMEs and the government needs to assist SMEs by trying to reduce the amount of regulations that they have to comply with. The ANOVA analysis showed that start-ups are more affected by this than firms with turnover of less than R1 million. Overregulation such as red tape negatively affects the growth of SMEs.

The economic environment factor is mostly outside the control of SMEs and as such there is a need for a concerted effort to have economic growth plans in place that can benefit small businesses. High competition needs to be considered as well. The ANOVA shows that this is a key obstacle to 100% blacked owned firms and also for the firms that are financed by debt. This points to the need of further supporting black owned SMEs through schemes/policies such as BBBEE.

The statistical results also showed that lack on internal resources such as skilled labour, lack of a long-term strategy and lack of training are significant obstacles. This shows that entrepreneurs need not only to get their staff trained but also get training programmes that will develop them as business owners. This is an area that can be facilitated by government through subsidised training and

development programs. Ideally these programs should focus specific areas of expertise that need to be developed by the entrepreneurs.

Input costs were the fifth factor in terms of importance. The ANOVA showed that this factor is more important for SMEs that have been operating between 6 to 10 years than for the older ones. These companies may be struggling to establish themselves or they may have to cope with the extra complexity that comes from growing the business beyond a certain point. As the firms grow controlling costs thus becomes more relevant to them.

It is clear that the challenges faced in South Africa by firms at each stage of their growth are complex and diverse. Knowledge of these challenges can support entrepreneurs as they try to grow their businesses. What is also evident is that the government has a key role to play if SMEs are to succeed.

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Appendix A

Questionnaire

Section A- Firm Characteristics

1 Firm/Industry sector: _____

2 What type of legal entity is your firm:

a. Sole Proprietor

b. Partnership

c. CC

d. Private company

e. Public company

f. Co-op

3 Company size: Turnover range. Please select the range appropriate to your company:

Start-up	Less than R1m	R1m to R10m	R11m to R29m	R30m to R64

4 Number of employees:

1 to 5	6 to 20	21 to 50	51 to 200

5 Percentage of Black ownership:

0%	1%-51%	52%-99%	100%

6 Finance structure

My company is financed:

a. Mostly by debt

b. Mostly by equity

c. in equal proportions of debt and equity

7. Year in which operations were started:

5 to 1 year	10 to 6 years	More than 10 years

Section B- Internal and External obstacles to SMEs growth

Please indicate to what extent each of the items below affect the growth of your company.

	Perceived Obstacles that impact the growth of SMEs	Strongly Agree	Agree	Neither agree or Disagree	Disagree	Strongly Disagree
1	Lack of access to finance					
2	Lack of collateral / assets available to secure finance					
3	Crime					
4	Lack of owners' equity contribution					
5	Bad credit record					
6	Insufficient government support					
7	High production costs					
8	Inadequate market research					
9	Lack of information technology					
10	Corruption					
11	High interest rates					
12	High taxes and other tariffs					
13	Recession in the economy					
14	High inflation rate					
15	High exchange rate					
16	Location of the business					
17	Inadequate demand					
18	High competition					
19	High transport costs					
20	Inadequate market research					

21	Lack of experience relevant to the venture					
22	Founder is not familiar with the market/industry					
23	Lack of networking					
24	Lack of business skills					
25	Shortage of skilled labour					
26	Lack of training					
27	Poor electricity supply					
28	Lack of personal transport					
29	Poor roads					
30	Poor water supply					
31	Political instability					
32	Lack of long-term strategy and direction					
33	Labour laws					

Please add any further comments that can help us to identify the key challenges that your business is facing.

_____

_____

Appendix B

Coding of questionnaire questions

1. Firm/Industry sector	**IND**
2. What type of legal entity is your firm:	**TYPE**
3. Company size: Turnover range.	**SIZE**
4. Number of employees:	**NUM**
5. Percentage of Black ownership:	**OWN**
6. My company is financed:	**FIN**
7. Year in which operations were started:	**YEAR**
8. In which Province are you located?	**PROV**
SME Obstacles	
1. Lack of access to finance	**ACCFIN**
2. Lack of collateral / assets available to secure finance	**COLL**
3. Crime	**CRIME**
4. Lack of owners' equity contribution	**OE**
5. Bad credit record	**BAD**
6. Insufficient government support	**GOVSUP**
7. High production costs	**PRODCOST**
8. Inadequate market research	**MARKRES**
9. Lack of information technology	**IT**
10. Corruption	**COR**
11. High interest rate	**INT**
12. High taxes and other tariffs	**TAXTAR**
13. Recession in the economy	**REC**
14. High inflation rate	**INF**
15. High exchange rate	**EXC**
16. Location of the business	**LOC**
17. Inadequate demand	**DEM**
18. High competition	**COMP**
19. High transport costs	**TRANSC**

20. Lack of experience relevant to the venture	**VENT**
21. Founder is not familiar with the market/industry	**FOUND**
22. Lack of networking	**NET**
23. Lack of business skills	**BUSSKILL**
24. Shortage of skilled labour	**SKILLAB**
25. Lack of training	**TRAIN**
26. Poor electricity supply	**ELEC**
27. Lack of personal transport	**PTRANS**
28. Poor roads	**ROADS**
29. Poor water supply	**WATER**
30. Political instability	**POL**
31. Lack of long-term strategy and direction	**LTSTRAT**
32. Onerous labour laws	**LAW**
33. Red tape and over regulation	**RED**

Appendix C

FIRM CHARACTERISTICS

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
TYPE	104	1	6	3.70	1.004
SIZE	104	1	7	2.36	1.023
NUM	104	1	200	23.12	45.505
OWN	104	0	100	81.55	36.283
FIN	104	1	3	2.07	0.700
YEAR	104	1980	2018	2012.48	6.512
PROV	104	1	7	1.13	0.698
Valid N (listwise)	104				

Appendix D: Cronbach's Alpha if Items are deleted

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
ACCFIN	116.88	266.569	.229	.893
COLL	117.02	264.077	.285	.892
CRIME	117.68	252.976	.496	.889
OE	117.49	259.845	.373	.891
BAD	117.97	260.009	.285	.893
GOVSUP	117.30	266.736	.215	.893
PRODCOST	117.34	257.779	.514	.889
MARKRES	117.39	252.241	.643	.886
IT	117.60	256.243	.516	.889
COR	117.55	263.668	.248	.893
INT	117.45	266.347	.217	.893
TAXTAR	117.58	265.237	.256	.893
REC	117.42	265.023	.253	.893
INF	117.51	262.951	.342	.891
EXC	117.63	263.749	.268	.893
LOC	117.79	249.683	.636	.886
DEM	117.53	249.630	.631	.886
COMP	117.44	260.210	.373	.891
TRANS	117.47	260.679	.384	.891
VENT	117.80	264.726	.209	.894
FOUND	118.38	258.256	.309	.893
NET	117.70	250.910	.593	.887
BUSSKILL	117.77	246.839	.651	.885
SKILLAB	117.60	254.748	.530	.888
TRAIN	117.55	254.425	.553	.888
ELEC	118.12	249.870	.619	.886
TRANS	118.23	249.538	.594	.887
ROADS	118.47	249.087	.597	.887
WATER	118.45	249.784	.590	.887
POL	117.78	256.252	.460	.889
LTSTRAT	117.70	253.337	.542	.888
LAW	117.56	258.501	.432	.890
RED	117.63	268.780	.085	.897

Appendix E

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.297	25.142	25.142	7.926	24.018	24.018	4.057	12.294	12.294
2	4.316	13.080	38.222	3.902	11.825	35.843	3.244	9.830	22.124
3	2.328	7.054	45.275	1.887	5.719	41.562	3.121	9.459	31.583
4	2.092	6.339	51.615	1.725	5.226	46.788	2.676	8.109	39.692
5	1.663	5.038	56.653	1.265	3.832	50.620	1.831	5.548	45.240
6	1.430	4.332	60.986	.965	2.924	53.545	1.594	4.832	50.072
7	1.191	3.610	64.595	.809	2.453	55.997	1.376	4.169	54.240
8	1.109	3.362	67.957	.682	2.066	58.063	1.262	3.823	58.063
9	.977	2.962	70.919						
10	.912	2.765	73.683						
11	.851	2.578	76.261						
12	.818	2.478	78.740						
13	.789	2.391	81.131						
14	.729	2.210	83.341						
15	.679	2.056	85.398						
16	.554	1.679	87.077						
17	.478	1.449	88.526						
18	.443	1.343	89.869						
19	.390	1.183	91.053						
20	.375	1.138	92.190						
21	.347	1.051	93.242						
22	.326	.988	94.229						
23	.293	.888	95.117						
24	.261	.792	95.909						
25	.236	.714	96.622						
26	.229	.695	97.318						
27	.187	.566	97.883						
28	.162	.492	98.376						
29	.143	.433	98.809						
30	.116	.352	99.161						
31	.106	.322	99.483						
32	.098	.297	99.780						
33	.073	.220	100.000						

Appendix F

Rotated Factor Matrix

	Factor							
	1	2	3	4	5	6	7	8
ACCFIN	.138	-.068	.009	.631	-.096	.113	.022	-.130
COLL	.080	-.017	.047	.754	.013	-.136	.000	.125
CRIME	.224	.253	.460	.243	.187	-.038	-.144	-.164
OE	.108	-.105	.162	.711	.116	.024	.028	.104
BAD	.007	.026	.078	.530	.205	.104	.035	-.127
GOVSUP	-.060	.047	.139	.264	.070	.107	.010	.436
PRODCOST	.282	.290	.068	.254	.111	.107	.500	-.057
MARKRES	.358	.075	.273	.410	.123	.373	.299	.063
IT	.314	-.033	.226	.434	.093	.390	.146	.058
COR	.161	.471	.077	-.015	-.007	.026	-.174	.085
INT	-.025	.453	.149	.050	.106	-.475	.278	-.239
TAXTAR	-.031	.562	.226	-.091	.069	-.351	.219	.001
REC	-.007	.832	.009	-.125	-.015	.070	.080	.103
INF	-.048	.751	.050	.067	.197	-.141	.163	.007
EXC	-.043	.706	.060	-.061	.128	-.092	.097	.173
LOC	.398	.083	.255	.299	.506	.118	.032	.082
DEM	.412	.244	.129	.054	.691	.132	.140	.097
COMP	.090	.073	.048	.107	.757	.020	.220	-.091
TRANS	.120	.122	.120	-.012	.282	-.057	.661	.130
VENT	.225	-.110	-.019	.136	.078	.616	-.004	-.056
FOUND	.388	-.100	.127	-.060	.101	.450	.067	-.041
NET	.697	.059	.152	.038	.203	.151	.264	-.167
BUSSKILL	.687	.078	.246	.149	.203	.295	.146	-.301
SKILLAB	.841	-.029	.137	.076	.041	.100	-.086	.160
TRAIN	.767	.049	.072	.237	.011	.168	-.060	.127
ELEC	.411	.133	.532	.094	.157	-.058	.117	.087
TRANS	.532	-.014	.442	.094	.110	-.158	.239	.115
ROADS	.197	.007	.779	.090	.171	.033	.170	.110
WATER	.157	.097	.896	.133	.017	.131	.008	.048
POL	.086	.472	.531	.173	-.161	.001	-.016	.130
LTSTRAT	.507	-.019	.280	.094	.183	.159	.230	-.151
LAW	.204	.283	.411	-.072	-.032	-.078	.164	.451
RED	.024	.346	.020	-.194	-.071	-.097	.027	.620

Extraction Method: Principal Axis Factoring. Rotation Method: Varimax with Kaiser Normalization.

Appendix G

Item Statistics

	Mean	Std. Deviation	N
ACCFIN	4.45	.811	104
COLL	4.32	.906	104
CRIME	3.65	1.197	104
OE	3.85	1.031	104
BAD	3.37	1.270	104
GOVSUP	4.04	.835	104
PRODCOST	4.00	.892	104
MARKRES	3.94	.984	104
IT	3.74	.975	104
COR	3.79	1.058	104
INT	3.88	.874	104
TAXTAR	3.76	.876	104
REC	3.91	.904	104
INF	3.83	.864	104
EXC	3.70	.984	104
LOC	3.55	1.114	104
DEM	3.81	1.124	104
COMP	3.89	1.004	104
TRANS	3.87	.946	104
VENT	3.54	1.088	104
FOUND	2.96	1.336	104
NET	3.63	1.124	104
BUSSKILL	3.57	1.221	104
SKILLAB	3.74	1.033	104
TRAIN	3.79	1.011	104
ELEC	3.22	1.132	104
TRANS	3.11	1.190	104
ROADS	2.87	1.207	104
WATER	2.88	1.185	104
POL	3.56	1.078	104
LTSTRAT	3.63	1.089	104
LAW	3.78	.995	104
RED	3.71	1.146	104