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Factors that influence construction Small and Medium-size Enterprises' contribution to economic growth: evidence from the Eastern Cape, South Africa

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ABSTRACT

Worldwide research has identified small and medium construction enterprises as lifeblood for boosting the country's gross domestic product (GDP) in both developed and developing economies, by means of creating employment and enhancing entrepreneurial activities. These small enterprises play a pivotal role in building a joint network with other sectors such as transportation, manufacturing, tourism, and energy, as these industries are part of the construction industry's value chain. Nations such as Pakistan, Ghana, the United Kingdom (UK), and Malaysia, as well as Sri Lanka, have encouraged active participation of construction SMEs through policy reforms, to achieve key country strategic objectives, which include enhancing economic and technology development and attracting foreign direct investment. This proves the unequivocal responsibility of construction SMEs in any country when used strategically, particularly in emerging countries such as South Africa. However, research indicates although the South African government is putting more focus on aligning SMEs to play a strategic role in the country's economic development, these enterprises are still not delivering the required results. According to a report by Statistics South Africa, the South African construction sector contracted by 4,7 percent between 2019 and 2020.

The decrease in the contribution is attributed to critical challenges faced by construction SMEs that influence the contribution of these businesses to economic growth. Severally, research has been conducted on key challenges hindering the performance of construction SMEs. Part of these challenges are lack of skills and qualifications, unfavourable procurement practices and systems, supply chain relationships, and lack of technical and financial capacity. Although many researchers have identified these challenges, a significant gap remains in these research studies on how these challenges influence the contribution of construction SMES to economic growth. A detailed root-cause analysis of these factors is missing in these studies. Theoretical models on the factors influencing the contribution of construction SMEs are required in the business management field to help owners of these businesses be resilient. Thus, there is a need to close this gap through detailed research that will provide an in-depth understanding and appreciation of factors influencing construction SMEs in South Africa.

Hence, this study is aimed at identifying factors that influence the contribution of construction SMEs and proposes an integrated prototype model for fostering the contribution of these firms. This study has a specific refence to construction SMEs within the Eastern Cape province. The need for this study is due to the limited growth and business failure experienced by these construction SMEs.

A mixed-methods exploratory sequential design was adopted for this study. The quantitative phase of the study involved a closed-ended questionnaire and the qualitative phase of semi-structured interviews for construction SME owners or managers in the Eastern Cape, to determine factors that influence the contribution of their businesses to economic growth. For the quantitative study, inferential and descriptive statistical data analysis was conducted using SPSS (version 27.0), while for the qualitative study phase, a detailed analysis was done through thematic analysis.

The empirical findings of the study revealed construction SMEs are faced with critical factors that affect their performance and, consequently, influence their contribution to economic growth. These factors are categorised into external and internal factors. Internal factors include lack of organisational support, lack of education and training, lack of business networking, as well as lack of leadership, a skills shortage, and lack of business managerial skills. While external factors include lack of government support, regulatory factors, financial barriers, and corruption, along with delays in payments, lack of access to market and lack of technological infrastructure. A theoretical model that indicates how these factors influence the contribution of these firms was developed and a wide range of recommendations proposed that can be used by business owners, government officials and private stakeholders, to alleviate the pressure exerted on these small businesses by factors identified in the study and ensure the building and development of construction SMEs to achieve sustainable growth.

DECLARATION

I, **Lubabalo Flepisi**, hereby declare this dissertation/thesis is my own work, and all references have been stated, with citation provided. This work has not been submitted for any qualification at any other tertiary institution. The list of references was developed to acknowledge all sources consulted throughout the period of the research study.

07-08-2024

Signature **Date**

DEDICATION

To my loving parents, Mr S. and Mrs N. Flepisi, you have not only entrenched the importance of education in my life, but you have also broken all the boundaries and given it all for me to attain education. This thesis is my dedication to you.

I also dedicate this study to my wife, Ntombikayise, and my children, Ababalwe and Lulo, who have encouraged and supported me throughout.

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Psalms 127:1 "*Except the LORD builds the house, they labour in vain that build it…*"

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LIST OF ACRONYMS AND ABBREVIATIONS

ANC	**:**	African National Congress
BEE	:	Black Economic Empowerment
B-BBEE	**:**	Broad-Based Black Economic Empowerment
CBPP	:	Construction Best Practice Programme
CDC	**:**	Coega Development Corporation
CDP	**:**	Contractor Development Programmes
CEO	**:**	Chief Executive Officer
CIB	:	Construction Industry Board
CIDA	**:**	Construction Industry Development Authority
CIDB	**:**	Construction Industry Development Board
COGTA	**:**	Cooperative Governance and Traditional Affairs
DPW	**:**	Department of Public Works
DTI	**:**	Department of Trade and Industry
ECDC	**:**	Eastern Cape Development Corporation
ECSECC	:	Eastern Cape Socio Economic Consultative Council
EFG	**:**	Enterprise Finance Guarantee
EME	**:**	Exempted Micro Enterprises
EU	:	European Union
FDI	**:**	Foreign Direct Investment
GDP	**:**	Gross Domestic Product
ICT	**:**	Information and Communication Technology
IPP	**:**	Independent power producers
IR 4.0	:	Fourth Industrial Revolution
JV	:	Joint Venture
MSBD	**:**	Ministry of Small Business Development
NCR	:	National Credit Regulator
NDP	:	National Development Plan
NEF	:	National Empowerment Fund
OECD	:	Organisation for Economic Co-operation and Development
OHSA	:	Occupational Health and Safety Act (No. 85 of 1993)
PDIs	:	Previously Disadvantaged Individuals
PPP	:	Public-Private Partnership

PPPFA	:	Preferential Procurement Policy Framework Act No. 5 of 2000
PWC	:	PricewaterhouseCoopers
QSE	:	Qualifying Small Business Enterprises
RBT	:	Resource-Based Theory
SA	:	South Africa
SAMAF	:	South African Micro-Finance Apex Fund
SANRAL	:	South African National Roads Agency
SEDA	:	Small Enterprise Development Agency
SEFA	:	Small Enterprise Finance Agency
SFLG	:	Small Firms Loan Guarantee
SME	:	Small and Medium Enterprise
SMME	:	Small, micro and medium-sized enterprises
SPSS	:	Statistical Package for Social Sciences
StatsSA	:	Statistics South Africa
UK	:	United Kingdom
WHO	**:**	World Health Organisation

CHAPTER ONE: INTRODUCTION AND OVERVIEW OF THE STUDY

1.1 INTRODUCTION

This research is multidisciplinary by nature, since it links the fields of business management and economic development. The study sought to identify and explore factors influencing the construction sector Small and Medium-size Enterprises (SME) contribution to economic growth in the Eastern Cape, with a prototype model proposed to enable this contribution. Generally, in most countries such as South Africa (SA), the construction industry is a major economic growth contributor due to its linkages with other sectors (Khenisa 2020: 58; Nordin, Takim and Nawawi 2011: 330).

Globally, authors agree the construction sector is an engine for growth and a key driver of economic development in both developed and developing countries (Dithebe *et al.* 2018: 1185; Tayeh, Alaloul and Muhaisen 2019: 51; Aigbavboa and Thwala 2014: 772). However, this is not the case with the construction sector in the Eastern Cape. The Department of Economic Development, Environmental Affairs and Tourism (2015: 20) states the construction sector's limited growth resulted in a GDP decrease in the province. Hosken (2019: 1) indicated the construction sector is not contributing the way it should, in the Eastern Cape, due to late payments. Critical factors affecting SME performance in the Eastern Cape include lack of finance, managerial skills, and access to markets, along with inadequate appropriate technology, and insufficient education and management training, as well as lack of adequate advice and information (Oyelana and Fiseha 2014: 688; Oyelana and Adu 2015: 14).

The chapter begins with the background as an overview of the study, followed by the problem statement, aims and objectives, and the research questions. Also included in this chapter is a discussion regarding the research methodology, in addition to which an outline of the significance, delimitation, and structure of this research is provided.

1.2 BACKGROUND

Construction companies globally play a pivotal role in creating jobs and boosting the economy of the country. According to Michna, Kmieciak and Czerwinska-

Lubszczyk (2020: 221), the construction sector plays an important role in contributing significantly towards sustainable economic development, which results in stimulating the country's economy. Ofori (2012: 4) states that, globally, the construction sector is a key driver of the economy, it plays a significant role towards socio-economic development, as it contributes approximately 5-10 percent of GDP and accounts for 10 percent of the working population. PricewaterhouseCoopers (PWC) (2013: 6) states government infrastructure spending is a good signal of the performance direction of the construction industry. It is important for this study to be undertaken, to ensure the SME construction industry is well managed to contribute positively to the South African economy.

Recent statistics reported by the Eastern Cape Socio Economic Consultative Council (ECSECC) (2019: 1), show a decline in the Eastern Cape quarter-on-quarter GDP growth rate to 2.4 percent, where year-on-year growth experienced a decline of five percent. Wasserman (2019: 1) stresses that circumstances in the construction industry in SA have been bad due to poor economic conditions, where some companies are closing down, while others are shrinking. Manyana (2019: 1) avers the construction sector has been negatively affected by poor local economic growth, resulting in the third biggest South African construction company, Group 5, filing for liquidation. This adds to Dithebe *et al.* (2018: 1186), who argued the construction sector in SA faces many challenges that constrain the sector.

A small and medium enterprise (SME), as defined in section 1 of the National Small Business Act of 1996 amended by the National Small Business Amendment Acts of 2003 and 2004 is:

> "a separate and distinct business entity, including co-operative enterprises and non-governmental organisations, managed by one owner or more persons which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or sub-sector of the economy" (Moise, Khoase, and Ndayizigamiye 2020: 105).

While a construction SME is defined as an inexperienced contractor with a limited knowledge of construction quality management and procedures (Nyakala, Pretorius and Vermeulen 2020: 47). Construction SMEs can be

classified into five categories of work, based on the area of experience; which are civil engineering, general building, mechanical engineering, and electrical engineering, as well as specialist work, ranging from grade 1 to 6 (CIDB 2017: 16; Nyakala *et al.* 2020: 47).

Norouzi, Chàfer, Cabeza, Jiménez and Boer (2021: 3) define the construction sector as a structured process of producing and maintaining the built environment, which incorporates all planned activities that contribute to the development of a certain kind of object. According to Alagidede and Mensah 2018: 1), the construction sector is a major contributor to the production of goods and services in numerous industries. Alagidede and Mensah (2018: 2) state the construction sector has been the major driver of economic growth in developing countries, since it contributes directly to GDP.

One of the primary indicators of the economic growth rate in every country, GDP also determines the expansion rate of the construction industry (Nyakala *et al.* 2020: 47). Alagidede and Mensah (2018: 2) indicate the construction sector participates in determining the performance of GDP, as it contributes directly to the country's GDP. In addition, Rodríguez-Espíndola, Cuevas-Romo, Chowdhury, Díaz-Acevedo, Albores, Despoudi, Malesios and Dey (2022: 2) argues construction sector's performance is of critical importance as it produces goods for country's investment. There is a considerable and undisputable relationship between construction and GDP in the Eastern Cape province (Qifa 2013: 1298). Oladinrin, Ogunsemi and Aje (2012: 51) state the construction sector is one of the most neglected sectors, as government policies do not allow the sector to make meaningful contribution to economic growth. The Eastern Cape construction sector has challenges that range from lack of investment to capital spending on infrastructure (Eastern Cape 2017: 23).

According to Wentzel, Smallwood and Emuze (2016: 1480), internal factors that lead to SME business failure emanate from the lack of management skills, financial knowledge, and insufficient expertise in functional areas such as marketing and human resources. Dithebe *et al*. (2018: 1186) established there are many business owners in the construction sector who do not have any formal training, nor a degree; a huge obstacle to their business growth. Khenisa (2020:

58) also highlights the lack of technical and financial capacity as hindering small company growth in the construction sector. In addition, internal factors facing construction SMEs include the inability to set strategic goals, reluctance to seek advice and a lack of management commitment (Wentzel *et al.* 2016: 1480). This is echoed by Mafundu and Mafini (2019: 3), who add that key factors affecting SME business growth include lack of access to finance, policies that regulate how to conduct business, and SME failure to adapt to change.

PWC (2013: 8) indicates the government is a major contributor in spending capital in the construction sector, through state owned enterprises (SOEs), such as the South African National Roads Agency (SANRAL), Eskom and Transnet. The South African government recognises the role of small businesses in driving economic growth, through introduction of the National Small Business Act 102 of 1996, which provides a regulatory and support framework for small enterprises (Chimucheka 2013: 793).

Muriithi (2017: 41) states that stringent SME regulations and laws in many African countries hinder the contribution these small enterprises make to GDP, which include high taxes, inflation, as well as fluctuating and unreliable exchange rates; making it difficult to earn sufficient profits to survive. Furthermore, the South African government acknowledged the unfair competition, complicated rules and regulations that negatively obstruct the SME contribution to the economy (Department of Trade and Industry (DTI) 2005: 11). There is thus a need to explore, identify and address aspects of factors influencing the contribution of the construction SMEs to economic growth.

The conceptual and theoretical framework underpinning this study arises from the Keynesian Macroeconomic Policy Theory of Economic Growth Stimulation (Arestis, Filho and Terra 2018: 2); the best way to stimulate economic growth is to raise government investment in infrastructure. Based on this theory, the study proposes a conceptual framework of entrepreneurial opportunity identification and development for SME business growth (Joshi and Dixit 2015: 202).

1.3 PROBLEM STATEMENT

The construction sector's failure to make a significant contribution to the local economy leads to slow economic growth in the Eastern Cape province. This notion

is supported by the Department of Economic Development, Environmental Affairs and Tourism (2015: 1) in reporting that slow economic growth in Nelson Mandela Bay is due to the lack of the construction sector contributing to the local economy. According to the Small Enterprise Development Agency (SEDA) (2019: 18), in the first quarter of 2019 the contribution of construction SMEs to the GDP in Gauteng, KwaZulu-Natal and the Eastern Cape provinces was 35,4 percent, 15,3 percent and 7.1 percent, respectively. Furthermore, recent research by Statistics South Africa (StatsSA) shows a significant decrease in the real GDP of SA over the past few quarters, where GDP decreased by two percent in the first quarter of 2020 and, in the 2019 fourth quarter, GDP decreased by 1.4 percent (StatsSA 2020: 2).

These figures were reinforced by Mahlaka (2019: 1), who showed the South African GDP experienced the biggest decline of 3.2 percent in the first quarter of 2019, which is the greatest since the global recession in 2018 that resulted in the construction sector losing 142 jobs. Similarly, the Eastern Cape province recorded the largest decline in GDP growth of 0.5percent in the first quarter of 2019 (ECSECC 2019: 2). In addition, recent research also shows the South African construction sector has contracted by 4,7percent due to a decreased demand for construction work (StatsSA 2020: 3). There has been severe pressure on the construction sector due to poor economic conditions (PWC 2013: 9; Wasserman 2019: 1), with the Eastern Cape province, moreover, reporting a decrease of 0.8 percent in the construction contribution between 2019 and 2020 (StatsSA 2020: 13).

The Department of Economic Development, Environmental Affairs and Tourism (2015: 20) reported that the construction sector's limited growth contributes to the decrease in the province's GDP. Furthermore, Hosken (2019: 1) indicated the construction sector is not contributing the way it should, in the Eastern Cape, attributing this to factors such as late payments. Dithebe *et al*. (2018: 1186) point out that in developing countries such as SA, there are worrying challenges encountered by infrastructure development that, if not addressed soon, will add to economic decline.

Oladinrin *et al.* (2012: 5) argue that essential interventions are needed for the country to derive the greatest benefits from the construction sector's contribution

to economic growth. Wentzel *et al*. (2016: 1478) argue the construction sector has more SMEs compared to established companies and SMEs are the catalyst of economic growth for every country. Therefore, closer examination of what influences the SME construction sector's growth in the Eastern Cape seems appropriate.

1.4 AIM AND OBJECTIVES OF THE STUDY

The aim of this study is to understand the influencing factors of the economic growth impact of SMEs in the construction sector of the Eastern Cape province of SA.

To achieve this aim, the following objectives were addressed:

Objective 1: To establish factors that influence the construction SMEs' contribution to economic growth in the Eastern Cape province;
Objective 2: To examine the extent to which the construction SMEs' contribution align with the government economic growth policy in the Eastern Cape province;
Objective 3: To determine characteristics of construction SMEs that affect economic growth in the Eastern Cape province;
Objective 4: To explore how government regulations and laws influence the construction SME contribution to economic growth in the Eastern Cape province;
Objective 5: To suggest a prototype model for construction sector SMEs' contribution to economic growth.

1.5 RESEARCH QUESTIONS AND HYPOTHESES

Question 1: What are the factors influencing the construction SMEs' contribution to achieve economic growth in the Eastern Cape province?
Question 2: To what extent are the construction SMEs' contributions aligned with the government's economic growth policy for the Eastern Cape province?
Question 3: Which construction SME characteristics affect economic growth in the Eastern Cape province?
Question 4: Which government regulations and/or laws influence the construction SME contribution to economic growth in the Eastern Cape province?
Question 5: What prototype model can be used for construction SMEs' contribution to economic growth and to sustain such contribution in the Eastern Cape province?

Hypotheses for this study

The hypotheses explored in this research are specified below, with their underlying theoretical foundations documented in the literature review chapter, sections 3.2 and 33.

Ho1: There is no relationship between level of education and innovative ability towards construction SMEs' contribution to economic growth in the Eastern Cape.
Ha1: There is a relationship between level of education and innovative ability towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ho2: There is no relationship between government political will and government financial assistance towards construction SMEs' contribution to economic growth in the Eastern Cape.
Ha2: There is a relationship between government political will and government financial assistance towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ho3: There is no relationship between record keeping and monitoring operational activities towards construction SMEs' contribution to economic growth in the Eastern Cape.
Ha3: There is a relationship between record keeping and monitoring operational activities towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ho4: There is no relationship between innovative behaviour and technical skills towards construction SMEs' contribution to economic growth in the Eastern Cape.
Ha4: There is a relationship between innovative behaviour and technical skills towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ho5: There is no relationship between access to loans and high interest rates towards construction SMEs' contribution to economic growth in the Eastern Cape.
Ha5: There is a relationship between access to loans and high interest rates towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ho6: There is no relationship between rapid technological changes and expertise in modern construction towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ha6: There is a relationship between rapid technological changes and expertise in modern construction towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ho7: There is no relationship between business diversification and interest to expand to other provinces towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ha7: There is a relationship between business diversification and interest to expand to other provinces towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ho8: There is no relationship between the use of social media and business networks towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ha8: There is a relationship between the use of social media and business networks towards construction SMEs' contribution to economic growth in the Eastern Cape.

Ho9: There is no relationship between clarity of tax policies and compliance with government regulations towards construction SMEs' contribution to economic growth in EC.

Ha9: There is a relationship between clarity of tax policies and compliance with government regulations towards construction SMEs' contribution to economic growth in EC.

1.6 SIGNIFICANCE OF THE STUDY

The study rationale emanates from the gap identified in the literature, where SMEs in the construction sector are not contributing fully to the economic growth in SA due to the challenges faced by these firms. While several studies exist on challenges concerning SMEs (Ncwadi and Dangalaza 2005: 1; Oyelana and Fiseha 2014:1; Dlova 2017: 2; Sityata 2019:1), no study has, however, specifically focused on factors influencing the contribution of SME construction firms to the economic growth in the Eastern Cape. The significance of this research is based on the relevant gaps in the current literature.

This study further sought to uncover the business characteristics of construction SMEs that directly impact economic growth. The study reveals new knowledge

and increases information that will be made available to the South African construction sector to enhance the sector's contribution, regarding the SMEs in the Eastern Cape. Furthermore, the study provides deeper insight into key components of critical importance to the business leadership and management of construction sector SMEs. Last, a prototype model is suggested that may be utilised by the construction industry to fully address factors impeding construction SMEs from contributing fully to the economic growth of SA. It is, therefore, envisaged this research will contribute to new knowledge and sustainable growth of construction sector SMEs, drawing lessons from the Eastern Cape.

1.7 RESEARCH METHODOLOGY AND DESIGN

A mixed-methods research methodology (Creswell 2014: 274) using an explanatory sequential mixed-methods approach, with integrated quantitative and qualitative data collection (Almalki 2016: 288), was deemed the most suitable method for this study. Almalki (2016: 291) argues the mixed-methods approach is the best method, since it captures trends and details of the study being undertaken. The advantage of the mixed-methods pragmatist research paradigm (Schoonenboom and Johnson 2017: 113), is that it takes full benefit of the strengths of both qualitative and quantitative approaches (Creswell 2014: 266), where quantitative data were collected first for this study, followed by the collection of qualitative data. Quantitative results were analysed and, thereafter, used to build on results, to explain them in more detail with qualitative research (Creswell 2014: 266).

Sekaran and Bougie (2016: 103) maintain that mixed-methods research addresses research questions that cannot be answered by using only one method, either quantitative or qualitative, but rather a combination of both is required. According to O'Cathain, Murphy and Nicoll (2007: 3), the qualitative data will help to generate hypotheses, which quantitative data will test. The qualitative data could also support the establishment of a theoretical framework for the quantitative framework or assist to conceptualise the entire research (O'Cathain *et al*. 2007: 3).

1.7.1 Population/Target population

The target population for the study consisted of formal construction SMEs that conduct business primarily in the Eastern Cape province. The researcher is

confident the selected target population could and would offer an in-depth understanding and relevant points on factors influencing the contribution of construction SMEs to economic growth. The study targeted 303 respondents. This targeted number was determined by the Eastern Cape Socio Economic Consultative Council (ECSECC) report (2021: 14), which indicated 42 999 registered construction SMEs located in the Eastern Cape province.

According to Kumar (2011: 106), a sample size of 331 may represent a population size of 42 999. The business participants represented companies in the construction sector that are SME owners or managers, who were invited to participate in the study. These participants were considered to have sufficient information about the study to be undertaken (Sekaran and Bougie 2016: 58).

1.7.2 Sampling method and size

A sample frame of 303 SME owners or managers was selected to represent the study population. Non-probability sampling, in the form of convenience sampling, was used for selection of the survey respondents (Kumar 2011: 42). The quantitative study sample comprised 303 SME owners or managers representing construction companies. This was deemed sufficient and appropriate, according to Conroy (2021: 9), to achieve a margin of error of five percent for the size of population greater than 1 000 and less than 2 500. In selecting the SME owners or managers for the quantitative study, the researcher ensured proper representation through selection of SME businesses from different types of construction industries registered with the Construction Industry Development Board (CIDB).

In terms of recruiting SME owners or mangers for the qualitative study, an invitation for respondents to participate in an interview was included at the end of the survey questionnaire (Appendices 4 and 5). Upon indicating their willingness to participate in an interview, the researcher utilised purposive convenience sampling (judgemental sampling) to select participants based on their biographic data. Saunders and Townsend (2016: 14) state the norm of between 15 and 60 interview participants is considered sufficient, as well as indicating that 30 interview participants is also sufficient. Therefore, the researcher proposed to interview a minimum of 15 and a maximum of 30 participants or until saturation was reached; selected from the 303-sample frame, to fill the gap in the quantitative

study. In addition, the qualitative study would provide more depth and insight to responses from the quantitative study (Creswell 2014: 275).

Regarding judgmental sampling, the researcher selected a more representative sample, with intense knowledge and experience in construction that could provide more accurate results. To achieve this selection, owners or managers were chosen from construction SMEs formally registered with the CIDB. Details regarding these construction SMEs were obtained from the CIDB database, with those construction SMEs not registered with the CIDB excluded.

1.8 VALIDITY

The following types of validity, as identified by Kabir (2016: 106), were measured for the study:

- convergent validity: assesses whether two independent measures join to produce the same measurement.
- concurrent validity: assesses the level to which the results from the new measurement technique align with those of more established techniques that measure the same variable, to see whether they are connected.

This was achieved through principal component analysis and multivariate technique.

For quantitative research, a survey questionnaire was used to measure the content and construct validity. To ensure internal validity of the qualitative data, the researcher conducted interviews until saturation was reached.

Triangulation was also used to further ensure the study validity and trustworthiness, as identified by Carter *et al.* (2014: 545). The use of multiple methods of data collection ensured trustworthiness of the study.

1.8.1 Data collection instrument

A mixed-methods technique is a method for study research that includes collecting, analysing and integrating quantitative (survey questionnaires) and qualitative (semi-structured interviews) research (Creswell 2014: 297). Survey is a method of collecting quantitative data using a questionnaire, whereas an interview is the method of collecting qualitative data, where an interviewer reads a set of questions in a fixed order, and records responses (Saunders, Lewis and Thornhill

2009: 1153). The data collection approach was based on both primary and secondary sources, where secondary sources included a review of literature, statistics relevant to SA and government reports. There were two methods of primary data collection for the study, namely, a self-administered survey and interviews. In recruiting study participants, the researcher followed the method summarised below:

- draw a list of construction SMEs registered with the CIDB that also appears on the SETA database;
- email the CEO or Directors requesting permission to conduct the study;
- remove construction SMEs from the list where permission is not granted;
- contact construction SME owners/managers telephonically where permission is granted;
- send letter of consent and interview questionnaire/schedule for qualitative study;
- send letter of consent and arrange interview session with SME owners/managers selected for qualitative study.

For the quantitative study, the researcher obtained a list of construction SMEs registered with the CIDB, contacted the CEOs or Directors of potential construction SMEs by email, and requested permission for the business owners/managers to form part of the study. To minimise contact with respondents, due to Covid-19 regulations, the researcher developed and made use of an online survey as a preferred method. For those owners or managers unable to use the online survey, a questionnaire was emailed for completion and return to the researcher, electronically.

The researcher handed out and collected the completed questionnaires in-person; following strict Covid-19 measures during Summer and lower lockdown levels. The researcher wore a face mask and carried hand sanitiser. Furthermore, the researcher recorded the details of the respondents on the Covid-19 register for traceability purposes. The researcher first visited respondents to establish contact, then distributed the research instrument electronically via online surveys, sent by email or fax. Thereafter, the researcher provided respondents seven days to complete and return the completed questionnaire by email.

Kumar (2011: 220) believes interviews provide a depth of useful information a survey method cannot provide. For the qualitative study, semi-structured interviews were conducted by means of the participants' preferred mediums, which included telephonically, on WhatsApp, Microsoft Teams, or on Zoom or Skype. This minimised contact with participants, in line with Covid-19 protocols. However, in circumstances where participants preferred a face-to-face interview, all Covid-19 protocols were strictly adhered to, such as wearing of masks, hand sanitising and social distancing.

Each interview lasted between 20 and 30 minutes. Where a participant was unable to use any of the electronic medium, a face-to-face interview was arranged with the participant, in a venue of the participant's choice, with sufficient space to maintain social distancing between researcher and participant, and all Covid-19 protocols maintained. The area was prepared, sanitised and provided sufficient flow of fresh air. In addition, the researcher ensured additional face masks for any participants without a face mask. No face-to-face interview was done without wearing face masks that covered both nose and mouth.

The researcher also recorded participant details on the Covid-19 register (for traceability purposes, as required by law). Thereafter, participant anonymity was ensured through the assigning of pseudonyms to each participant. Social distancing was always maintained between the researcher and participants.

1.9 DATA ANALYSIS

The Statistical Package for Social Sciences (SPSS) version 27.0 was used to capture and analyse primary quantitative data for this study. SPSS software enabled the researcher to generate different tests in the form of descriptive statistical analysis, frequency analysis, correlation, tabulation, and t-tests analysis. Cross-tabulations, with the appropriate inferential statistics (chi-square test), were used to test the relationship of variables (Kumar 2011: 210). To present the analysed data graphs, pie charts and tables were used.

As suggested by Singh *et al.* (2021: 1291) and Babbie (2010: 401), qualitative data collected were analysed separately, with the researcher complying with the following process:

- read and assess the collected qualitative data;

- conceptualise, sort and classify data into different structured categories in the form of themes and sub-themes;
- label and represent data into themes and sub-themes as well as interpret the data;
- assess the quality of the data, identify patterns and link the data content to the study being undertaken.

Thematic analysis was used to analyse the qualitative data (Aronson 1995:2).

1.10 PILOT TESTING

To ensure reliability and validity of the study, a pilot was conducted of the survey questionnaire and interview schedule using a maximum of 30 respondents and three participants, respectively. The pilot survey formed part of the study, in line with Gupta and Gupta (2011: 23), who state a pilot study may be necessary in social research in seeking guidance to clear possible ambiguities found in the questionnaire and interview schedule. Nevertheless, the pilot participants did not form part of those who were included in the main questionnaire and interviews.

1.11 RELIABILITY

According to Kabir (2016: 27), instrument reliability can be determined in many ways, classified in the following two groups:

- External consistency: where two different processes of data collection are used to compare results to verify the reliability of the measure. This can be achieved through test-retest and same test methods.
- Internal consistency: to ensure items measuring the same phenomenon should produce the same results. This can be achieved through the split-half technique.

To ensure the accurate measurement of reliability and the internal level of consistency of the quantitative research instrument, statistical tests such as the Cronbach's alpha, Pearson's correlation coefficient and linear regression were used (Kabir 2016: 102). Qualitative reliability was ensured through triangulation, thus increasing the trustworthiness and credibility of the findings (Kumar 2011: 26).

1.12 ANONYMITY AND CONFIDENTIALITY

Anonymity and confidentiality of participants is considered important for the study. Therefore, participants identities were not revealed in the study and the information gained from respondents and participants treated with the highest confidentiality. All participants were assured of their anonymity and a covering letter of information also listed the terms and conditions of participating in this study (Appendices 3 and 4).

1.13 ETHICAL CONSIDERATION

Research ethics formed a crucial part throughout the different stages of the study in gaining access and data collection, data storage, data analysing and producing the report. According to Saunders *et al*. (2009: 183), ethical concerns relate to matters of seeking to gain access to companies and individuals, in order to collect, analyse, and store the data. Ethical approval was sought from the Faculty Research Ethics Committee at the Durban University of Technology (DUT).

The researcher sought permission for potential participants to form part of the study through the letter of consent (Appendix 4), which covered the following aspects: the study aim; participation permission request; right not to take part; and participant confidentiality. All confidential data in the form of hard copies are stored safely in a filing cabinet and kept in a locked office for five years, with all electronic data encrypted, password protected and saved in the cloud for five years. A cloud service with two-factor authentication and encryption is used. On data security expiry, the researcher will delete all electronic records on the cloud permanently and shred all hard copies using an office shredder. Only the researcher has access to the confidential and sensitive data while it is safely stored.

1.14 STUDY LIMITATIONS

The study is limited to SMEs operating in the construction industry within the Eastern Cape province. The study obtained data from these SME owners/managers; therefore, the results of this study may not be generalised to SMEs in other sectors, or to SMEs outside the Eastern Cape. Nonetheless, the results of this study can be utilised to improve sustainable growth of SMEs in SA, since many of the variables are like those of other provinces.

1.15 STRUCTURE OF THE THESIS

This thesis is organised in the following seven chapters:

Chapter One: Introduction and Overview of the Study

Chapter one provided the study background and context, its rationale and focus. The problem statement, study aim and research objectives, as well as the research questions, research methodology and study design were presented.

Chapter Two: Literature Review: Background and introduction

Chapter two provides a detailed overview of the relevant, recent research concerning the SME sector in SA, specifically aimed at SMEs in the construction sector. The chapter will examine, compare and review theories on which the theoretical framework was based, guiding the study on the connection between the construction sector and economic growth. The challenges facing SMEs in the construction industry that lead to business failure and lack of sustainable growth, will also be addressed.

Chapter Three: Environmental Factors (External and Internal) Influencing Construction SMEs in Eastern Cape Province, SA

Chapter three presents a literature review on the external and internal factors likely to influence the construction industry SME contribution to economic growth. These factors were critically identified and evaluated, in accordance with the study aims and objectives.

Chapter Four: Research Methodology and Design

This chapter presents a discussion and justification of the research methodology and design selected for this study. This chapter will also outline the research method, population, sampling, and research instruments of the study. Furthermore, procedures for collection and analysing data, validity tests, reliability tests and triangulation of data, as well as study limitations are outlined.

Chapter Five: Data Analysis, Interpretation and Discussion

Chapter five contains the presentation, analysis, and interpretation of study results and findings, in terms of the quantitative and qualitative data on factors affecting construction sector contribution to economic growth. The results are presented in tables, pie charts and bar charts. The thematic framework, coding, themes, and sub-themes used to interpret the qualitative data are outlined, as well as

triangulation of data and merged data analysis comparisons employed to discover key patterns, differences, and similarities, from which conclusions were drawn.

Chapter Six: Discussion of the findings

Chapter six presents a summary of merged findings, with a discussion based on the empirical evidence presented in chapter five. The findings are further assessed in conjunction with the study aims and objectives.

Chapter Seven: Conclusions and recommendations

Chapter seven provides comprehensive conclusions and recommendations based on the study findings, in conjunction with its stated objectives. The study contributes to the body of knowledge in the field of construction management. Recommendations are offered, aimed at assisting policy makers, government officials and construction entrepreneurs in general. Study limitations and suggestions for future research are also discussed.

1.16 CONCLUSION

This chapter presented an overview of this study and introduced the study, which investigated factors that influence the contribution of SME construction firms to the economic growth in the Eastern Cape. It justified why the researcher decided to undertake this study, stated what the objectives and research questions are, and outlined an overview of the chapters and study delimitations. The next chapter details the relevant theories and a review of literature.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

The previous chapter provided the background and overview of this doctoral thesis. The literature reviewed in this chapter focuses on the challenges facing construction SMEs in the Eastern Cape, namely, lack of management skills, financial knowledge, insufficient expertise in functional areas, as well as lack of access to finance and government policies and regulations. This chapter will discuss critical components that form part of construction SMEs, namely, business forms of construction SMEs, categories of construction, government support for construction SMEs and challenges faced by construction SMEs, both locally and globally.

Past research dealing with the success of business focused more on large entities, with less attention on SMEs (Pramono *et al*. 2021: 882; Chittithaworn *et al.* 2011: 180). Consequently, the SME concept has captured much attention from many researchers and governments globally, resulting in exceptional growth in SME research. This chapter evaluates the connection between SMEs in other industries and SMEs in the construction industry.

Different authors substantiate the reason for the research to focus on SMEs. For example, Rodríguez-Espíndola *et al.* (2022: 2) and Pramono *et al.* (2021: 882) state recent research has focused on SMEs due to these small enterprises playing a key role in the stability, wealth, and economy of the country. In addition, Sebikari (2019: 164) posits that SMEs are recognised globally for promoting entrepreneurial skills and job creation. In support, Rotar, Kontošić Pamić and Bojnec (2019: 3296) reveal the importance of SMEs in European Union (EU) countries has been acknowledged in activating entrepreneurial skills as a driver of economic growth and facilitating employment. In the same vein, Anwar and Shah (2021: 2) and Margaretha and Supartika (2016: 132) further state SMEs facilitate entrepreneurial activities, play an important role in job creation, and make a significant contribution to the well-being of nations. Pramono *et al.* (2021: 88) conclude SMEs create a vibrant environment that stimulates economic growth and contribute a major portion of the country's GDP. Hence, SMEs are an integral part

of the economy of SA (Nyawo and Mashau 2019: 2; Sogaxa, Simpeh and Ndihokubwayo 2021: 118).

Researchers, starting from the early 70s to date, acknowledge the construction industry is a key that integrates other sectors (Krippaehne, McCullouch and Vanegas 1992: 15; Gilchrist 1972: 296). To support this, Perera *et al.* (2020: 4) and Tsado, Alumbugu, and Archibong (2019: 127) state the construction sector is directly linked to other sectors, owing to the distinct nature of the industry in terms of its size, reliance on a labour force; materials, and equipment widely utilised by other sectors. Thus, the construction sector stimulates a significant amount of economic growth through back- and forward linkages (Alaloul *et al.* 2021: 1; Sogaxa *et al.* 2021: 118). In addition, Onat and Kucukvar (2020: 2) state the construction industry creates a solid bond between other industries, as it is a major contributor to the production of goods and services in numerous industries. Furthermore, Cheelo and Liebenthal (2020: 398) and Tlapana and Mngeni (2021: 108) maintain the construction sector is of critical importance, due to the outputs and outcomes of its activities, such as buildings, roads, and bridges, amongst others. Moreover, the construction sector directly impacts the country to attract direct foreign direct investment (FDI) (Alaloul *et al*. 2021: 21).

It can, therefore, be concluded that construction SMEs and the construction sector in general are ideally designed to stimulate economic growth (Nyakala, Vermeulen and Pretorius 2022: 376). This is supported by Ali (2021: 34), whose study investigated the contribution of construction SMEs to sustainable development in Nigeria, which discovered the important contribution of construction SMEs to economic growth in that country. Hence, Sarvari *et al.* (2021: 2) and Arthur-Aidoo, Aigbavboa and Thwala (2018: 20) affirm that construction SMEs play an important role in the development of the country's economy, through achieving the needs of infrastructure development. The authors further confirm the importance of these firms to the country's economic growth has long been recognised (Arthur-Aidoo *et al*. 2018: 20).

Gyadu-Asiede (2009, cited in Arthur-Aidoo *et al*. 2018: 20), nonetheless, points out the performance of the construction SMEs in the developing countries has been undesirable, since they do not grow. Likewise, South African construction SMEs

are not immune to the limited lack of performance, resulting from the limited growth of these firms (Windapo, Olugboyega and Odediran 2020: 2). This is due to critical problems construction SMEs face, such as poor planning and ineffective management, amongst others (Aghimien *et al.* 2019: 214). In the context of this study, construction SMEs are aimed at ensuring a full contribution to economic growth by eliminating factors limiting their growth and performance (Sarvari *et al.* 2021: 3; Scholtz and Gravenorist 2019: 1).

This chapter will review the contribution of construction SMEs in SA and the Eastern Cape province. This literature review chapter will further affirm that although construction SMEs are key drivers of the country's economy (Sogaxa *et al*. 2021: 118), construction SMEs are facing critical challenges (Ali 2021: 24; Maingi, Kinanga, and Odimba 2019: 2) that need to be fully addressed to enable these firms to stimulate the economy. Challenges that construction SMEs face in SA and in the Eastern Cape province are assessed in this chapter. Furthermore, the literature review will deliberate different growth strategies compatible for the development of construction SMEs and the support provided by the CIDB in SA.

The literature reviewed herein indicates attempts to improve the performance of the construction industry in SA, through the identification of critical factors affecting the performance of the construction sector (Mafundu and Mafini 2019: 2). However, according to Mafundu and Mafini (2019: 2), previous studies in the South African construction industry have focused more on the contribution of larger business entities. Hence, there is a gap on research regarding construction SMEs and their contribution to economic growth. This study will provide unique insight on factors influencing the economic contribution of construction SMEs in the Eastern Cape province.

In conclusion, it will become apparent that some factors have a great influence on the growth and performance of construction SMEs. Furthermore, construction SME characteristics that influence the contribution of these firms to economic growth were also explored. Lastly, relevant theories to the study that pertain to innovation, the growth of the firm and entrepreneurship were reviewed and applied to the study. The next section will discuss the background of the study.

2.2 BACKGROUND

Since 1994 and the advent of democracy, the South African government, under the African National Congress (ANC), has put measures in place to improve the country's economic advancement, resulting in the national income doubling with millions of South Africans being pulled out of poor quality of life and transferred into the middle class (Dube 2020: 6; Awuah 2019: 1; Leke *et al.* 2015: 1). However, de Jongh and Mncayi (2018: 116) claim that the South African economy has not be performing well for the past ten years. Goga, Bosiu and Bell (2019: 821) agree that for many years the South African economy has been dismal, resulting in high levels of unemployment and inequality.

Despite the SA government having made major interventions to ensure economic growth over the years, the economy has experienced a decelerating growth momentum since 2008, recording an average gross domestic product (GDP) of 1.7 percent, compared with 2004 to 2007 average growth of 5.2 percent (Awuah 2019: 1). This poor performance by the South African economy that has occurred over a long period, is due to investments being hampered by high levels of concentration and barriers to entry (Goga *et al*. 2019: 882). De Jongh and Mncayi (2018: 116) and the DTI report (2016b: 9) argue that poor performance in the South African economy has been caused by the United States' financial crisis that resulted in the Great Recession of 2007, which affected the global economy.

In 2018, SA experienced a second economic recession since 1994, wherein the economy contracted by 2.7 percent in the first quarter and by a further 0.5 percent in the second quarter (StatsSA 2020: 2). Although SMEs are seen as drivers of the economy globally (Sebikari 2019: 163), this has not been the case in the South African economy for some time, instead, the country has registered a high SME failure rate of 75 percent (Msomi and Olarewaju 2021a: 104; Asah, Louw and Williams 2020: 2; Nqala 2019: 1).

Consequently, SME growth and performance have been of great concern to different stakeholders, which include economists, governments, financial institutions, and entrepreneurs (Msomi and Olarewaju 2021b: 281). This is due to the unique challenges SMEs face, such as a small local market, difficult business conditions comprising complicated procedures and regulations, poor infrastructure,

and lack of financial systems (Nqala 2019: 2). In support, Asah *et al*. (2020: 2) highlight the primary cause of the lack of contribution by SMEs in the South African economy, is insufficient availability of credit to SMEs from the formal financial sector. Similarly, construction SMEs are not contributing as expected to the South African economy, due to poor polices and guidelines (Hosken 2019: 1).

According to Fiseha, Kachere and Oyelana (2019: 203), the Eastern Cape province is not immune to the economic challenges faced by SA. For example, Phillip (2022: 1) states the economy of the Eastern Cape province in year 2021 contributed approximately eight percent to the South African GDP. According to Rungani and Potgieter (2018: 10), economic performance in the Eastern Cape province is restricted, due to the tendency of SMEs to do business in isolation. Further to this, Bikitsha and Amoah (2022: 2027) and Mxunyelwa and Lloyd (2019: 3) affirm lack of management capacity is the source of lack of growth and development, which leads to lack of success of SMEs, including construction SMEs, in SA, particularly in the Eastern Cape province.

In 2019, the Eastern Cape Development Corporation (ECDC) reported that the Eastern Cape province accounted for 8.2 percent of all SMEs in SA, with the province ranked 6th compared to the other eight provinces in the country (ECDC 2020: 18). Furthermore, the ECDC (2020: 18) reports that construction SMEs in the province shrank by 6.8 percent, which in turn, negatively affected the economic conditions in the province.

According to the ECDC (2020: 20), even though economic conditions negatively affected the following districts: Buffalo City, Alfred Nzo, Nelson Mandela, and Amatole, the province experienced an increase in the number of SMEs. In terms of SME distribution in the Eastern Cape province, the Sarah Baartman district had the highest number of SMEs (10 593), followed by Chris Hani and Joe Gqabi districts (2 261) and then OR Tambo (795) (ECDC 2020: 18). Furthermore, the ECDC (2020: 5) claims the GDP growth of the Eastern Cape province has constantly followed the national GDP path, which is slow in growth in terms of its trend.

Dlova (2017: 15) argues the Eastern Cape province economy is structurally different from the rest of the South African economy, since it has a bigger tertiary

sector, primarily responsible for the public sector. This allows for greater opportunities to take advantage of the Eastern Cape province; should proper measures be put in place to advance the economy of the province. These measures include providing appropriate support and development of construction SMEs, through the elimination of factors influencing their contribution to economic growth. As far as economic growth policy is concerned in the Eastern Cape province, the Department of Cooperative Governance and Traditional Affairs (COGTA) states the Provincial Development Plan Vision 2030 is to build an innovative, inclusive, and growing economy (COGTA 2021: 23).

According to Kavese (2021: 5), one of the ways to achieve this goal, is for SMEs in the Eastern Cape to create employment for employees laid off by big enterprises, since SMEs are recognised as able to absorb excess labour. This suggests when construction SMEs are aligned with the Eastern Cape province's economic growth policy, they are required to create avenues that will boost employment in order to grow the economy. This can be accomplished by construction SMEs, through the creation of direct and indirect employment. Direct employment is when construction SMEs employ an individual on a permanent basis or on contract, whereas indirect employment is when construction SMEs create a service for another company that subsequently employ an individual on a permanent or temporary basis. The next section discusses different theories applied to the study.

2.3 RELEVANT THEORIES CONSIDERED FOR THIS STUDY

The following section will discuss the theories that were considered for this study.

2.3.1 Conceptual theories on innovation, growth of the firm and entrepreneurship

The researcher developed a summary of theories applied to the study (Figure 2.1), which is illustrated below:

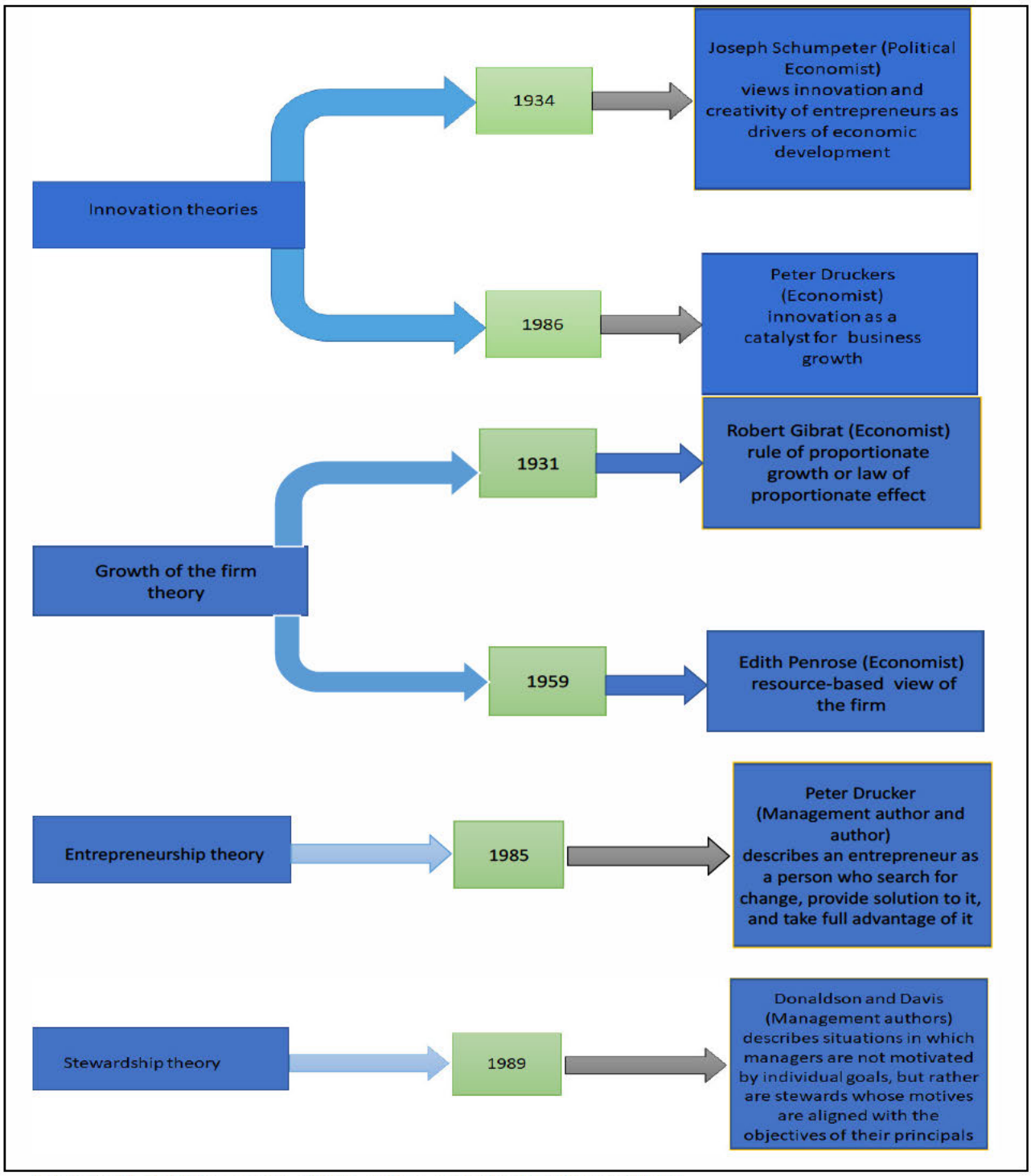

Figure 2.1: Summary of theories applied to the study

Source: Developed by researcher

2.3.1.1 Joseph Schumpeter (1934) and Peter Drucker (1986) theories of innovation

According to Schumpeter's innovation theory, innovation is a systematic process of industrial transformation that continually revolutionises the economic structure from within, leading on constantly breaking the old and constantly creating a new

structure (Blok 2021: 77; Śledzik 2013: 90). Drucker's (1986) innovation theory is of the view that successful innovation is based on defined methodical hard work, and it needs to be correctly managed and monitored to achieve the desired results. Furthermore, the theory highlights that innovation is the specific function of entrepreneurship critical for every institution, whether private business or public organisation (Drucker 2002: 5).

Schumpeter' innovation theory dissects the innovation process into four elements, namely, invention, innovation, diffusion, and imitation (Śledzik 2013: 90). In addition, dynamic entrepreneurship is an integral part of the innovation process, drawing upon scientists and inventors, and creating completely new opportunities for investment, growth, and employment. In support, Jiříček and Dostálová (2020: 318) point out that Schumpeter's innovation theory identifies the innovative entrepreneur as the catalyst of the business and economic growth of the capitalist society. This implies when construction SME owners/managers are not innovative, these firms will experience limited business growth. Thus, construction SME growth is fully dependent on the business entrepreneur to be innovative. Hence, Ngibe (2020: 24) states the disadvantage of Schumpeter's theory is centred on the entrepreneur being an innovative person, as opposed to the entrepreneur promoting an innovative spirit in the organisation.

According to Jiříček and Dostálová (2020: 318), when innovation becomes a success, it means the innovator succeeds; in return, his family succeed as does the community of his family. Therefore, when innovation succeeds in the construction SME, the business will succeed, and the construction SME owner will also succeed. McGrath and McManus (2020: 32) argues that businesses need to be mindful that innovation has evolved from focusing on customer needs to instead concentrating on making certain employees ensure innovation is at the core of the firm's identity and business processes. This calls for construction SMEs to appreciate innovation by incorporating it as part of their day-to-day business operations.

To conceptualise innovation, Mazzucato, Kattel and Ryan-Collins (2020: 422) argue the decision to apply innovation theory by policy makers cannot be effective on its own, but also requires government to assist by using more local products

than imports (Mytelka, Smith, and Karelplein, 2001: 130). Jiříček and Dostálová (2020: 318) state the EU cohesion policy has taken advantage of innovation theory by supporting financing programmes that support and promote innovation, particularly in the SME sector.

The phenomenon of innovation is, therefore, the primary foundation of economic development, and creates new opportunities for business development (Surya *et al.* 2021: 3; Śledzik 2013: 90). For example, to adopt innovation theory, the French government issued tax credits to textile businesses to encourage them to be innovative by buying new technological machinery and equipment (Mytelka *et al.* 2001: 130). Unfortunately, many failed to implement government strategy and be innovative, instead, they used the tax credits to pay their debt, resulting in many of these firms being taken over (Mytelka *et al.* 2001: 130). In Japan, innovation theory has been widely acknowledged by scientists for stimulating the technological and economical spheres (Jiříček and Dostálová 2020: 315). Considering Japan is the leader in producing higher products of innovation is attributed to the support by Japanese firms of government policies that encourage innovation (Lee, Mudambi and Cano-Kollmann 2016: 399).

Consequently, it can be deduced that by investing in innovation and supporting government policies that cultivate and encourage innovation, South African construction firms can enjoy the same benefits enjoyed by Japanese firms; being leaders of innovation. Innovation theory identifies owners and employees as key role players of the innovative process as an enabler for business performance, however, there is no evidence this is the case for construction SMEs. Hence, this study seeks to test whether innovation by construction SMEs has an influence on the contribution of these firms to economic growth in the Eastern Cape province.

Many authors acknowledge innovation as a catalyst of good performance, since it impacts how people execute their tasks, resulting in sustainable growth of the organisation (Žižlavský 2015: 173). There is, nevertheless, a heated debate on how to measure or link investment in innovation to the required business outcome (Taques *et al.* 2021: 12; Almeida *et al.* 2018: 472; Heeks, Foster, and Nugroho 2014: 176; Žižlavský 2015: 173). In the view of Žižlavský (2015:173), no matter how great the investment on innovation, there is no guarantee it will match the

required outcome, which is business growth and performance. In addition, critics argue that lack of ability of accounting standards to accurately measure innovation is a challenge (Almeida *et al*, 2018: 473). According to Walcher and Wöhrl (2018: 71), the means to measure innovation performance is a controversial topic among authors and a complex management challenge. Almeida *et al*. (2018: 472) emphasise the lack of consistent quantifiable measures to illustrate the benefits of innovation in an organisation, therefore, raising a huge gap regarding its legitimacy.

This study argues that the required sustainable growth of construction SME performance due to innovation, is dependent on how the innovation is implemented in the firm. For example, when buy-in is not sought by the construction SME management from employees through a consultative process, high innovation investment may not lead to better sustainable growth. However, when the construction SME employees fully support the construction SMEs' management goals to take advantage of innovation, high innovation investment has high chances of yielding better sustainable growth. Hence, Žižlavský (2015: 173) argues it is important for construction SMEs to innovate wisely and with focus.

This study, therefore, suggests a well-planned innovation implementation by construction SMEs with clear objectives will result in sustainable growth of revenues/profits, increased product quality and increased market share (Almeida *et al*. 2018: 473). In addition, research has proven countries such as Japan have benefited greatly on implementation of innovation theory (Jiříček and Dostálová 2020: 315). The next section discusses the theory of the growth of the firm.

2.3.1.2 Robert Gibrat (1931) and Edith Penrose (1959) the theory of the growth of the firm

Literature indicates that among the theoretical frameworks underpinning the influences of growth of the firm, is the theory of the growth of the firm by Gibrat (1931) and Penrose (1959). Gibrat's theory offers a perspective on the explanation of firm growth behaviour by defining the growth as the stochastic model of firm growth (Gopinath 2012:7). The rule of proportionate growth proposed by Gibrat, generally referred to as the law of proportionate effect, sets out a principle that the

firm's growth occurs randomly and the increase in firm size is directly proportional to the current size of the firm (Sedik and Bekhet 2023: 43; Gopinath 2012: 7).

A study by Santarelli, Klomp and Thurik (2006: 43) concluded there is no evidence that Gibrat's law is valid, nor is it scientifically rejected. The authors further state that only in certain sectors, particularly the service industry, where the likelihood of the given proportionate change in size during the relevant periods turns out to be the same for all the firms. In addition, a study conducted in Colombia by Corte´s, Lozada and Perote (2021: 16) concluded that Gibrat's law does not apply to some firms in Colombia. Therefore, Gibrat's law cannot be acknowledged to be a law in its form, since it has a limitation that proves it is not constant across industries (Santarelli *et al*. 2006: 43). Based on the above, Gilbrat's law cannot be adopted as a theory to stimulate the growth of construction SMEs.

Penrose's theory describes growth as both an "internal process of advancement" and a "rise in amount" (Tan *et al.* 2020: 6; Leitch, Hill and Neergaard 2010: 251). According to Sousa *et al.* (2021: 4), Penrose's theory is resource-based and views the firms as a group of resources, where the aim is on activities it can perform with those resources. Penrose (1959) assesses the growth process in relation to the speed with which firms could accrue and absorb such resources, as well as opportunities for additional growth, which happen when a firms' internal resources are underutilised (Gopinath 2012: 7). This theory has contributed to the key sets that include critical vacant and not fully utilised resources as key determinants of firm growth; service or product diversification and innovation; firm-specific and team-specific management, and old knowledge as a main impediment on the rate of business growth; and the Penrose consequence on global growth and inter-firm partnership, such as firm takeover (Kor *et al.* 2016: 1728).

Mareno and Casillas (2007, cited in Arthur-Aidoo *et al.* 2016: 173) assert growth of firms differs and may be measured by several levels of sales and employee growth over a particular period. The knowledge brought by Penrose in 1959, suggests there is no limitation to the size of the business, while limitless growth has raised the question of the connection between firm size and growth (Tan *et al.* 2020: 6; Hermelo and Vassolo 2007: 5). Garnsey, Stam and Heferman (2006: 8) state the growth of the firm can be determined by its inputs (investment funds,

employees), value of the firm (assets, market capitalisation, economic value added) or outputs (sales revenues, profits).

In support, Kor *et al.* (2016: 1729) reference Penrose's (1959) theory, which draws a link between growth and profitability, and views profit because of business growth. Equally important, profit is a catalyst for expansion or growth and financial and investment decisions taken by business linked to the desire to grow total long-term profits (Kor *et al.* 2016: 1729). This adds to Gupta, Guha and Krishnaswami (2013: 4), who determined that growth can be identified by means of revenue generation, value addition, and development, in terms of volume of the business. However, the challenges associated with using these measures are well captured and include efficacy of using only one of a small number, the choice of relative or absolute measures, and the measurement time frame; considering growth is not necessarily linear, sustained, or consistent over time (Leitch *et al*. 2010: 251).

Delmar, Davidsson and Gartner (2003: 7) argue businesses do not expand in the same way and these patterns of growth can, over time, vary significantly and have diverse causes. Different scholars agree that during the growth process there are three questions answered, namely "why," "how," and "how much" (Bhide 2000; Davidsson and Wiklund 2017; Delmar *et al*. 2003; Garnsey *et al*. 2006; Leitch *et al.* 2010: 251). Therefore, the Penrose theory ensures firm resources are fully utilised to achieve efficiency in the company and that firms incorporate innovation and diversification in their products and services to achieve business growth. South African construction SMEs can thus benefit from the Penrose theory, with the opportunity to be more efficient by achieving higher revenue and profits, resulting in sustainable growth.

In summary, Rapaccini *et al.* (2020: 227) and Hermelo and Vassolo (2007: 5) assert growth occurs during the exploration of opportunities and firms use certain resources to effectively and efficiently take full advantage of those opportunities and expand. Arthur-Aidoo *et al.* (2016: 173) argue the word "growth" is employed in the context of organisation to suggest an increase in quality, regarding sales, outputs, sizes, and employment, due to the firm's operation. Gyimah and Boachie (2018: 60) add that the growth of the business is not the same within SMEs, with growth trends changing over time. In addition, Xu and Wang (2018: 2) proclaim

that business growth is dependent on key variables, which include financial performance and business capabilities, to name a few.

Conversely, Arthur-Aidoo *et al.* (2016: 174) maintain that firm growth is linked to environmental circumstances, which include competition and market dynamics; these tend to play a significant role in the firm's growth. Nonetheless, Xu and Wang (2018: 2) agree with Kor *et al*. (2016: 1729) that there is a direct link between firm growth and financial performance. Hence, Msomi and Olarewaju (2021b: 282) emphasise the fact that finance is of critical importance to construction SME business growth. Consequently, Irikefe and Opusunju (2021: 386) identify firm growth from the four interdependent perspectives discovered by Wickham, namely: financial, strategic, structural and organisational growth. Muriithi (2017: 41) is of the view that entrepreneurs must view all perspectives when planning for growth, since these perspectives are inter-dependent. Figure 2.2 indicates the interrelation on the types of growth, and where they affect each other (Nderitu 2018: 30).

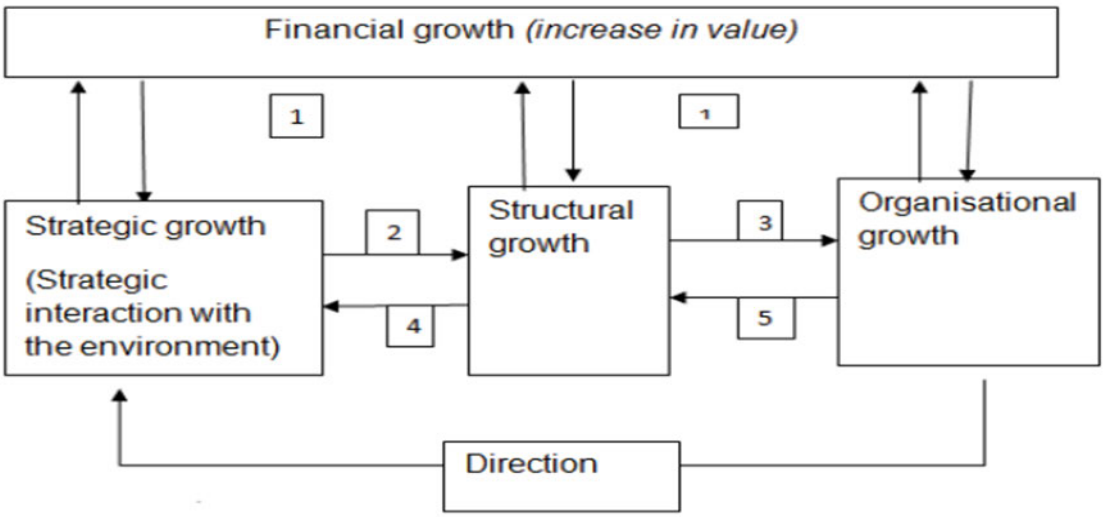

Figure 2.2: Dynamics of business growth

Source: Adapted from Nderitu (2018: 30)

Various nations globally use the Penrose growth of the firm theory as a critical determinant of firm performance and an important condition to job creation and economic growth (Hafiz *et al.* 2022: 1). Likewise, the Penrose theory can be used to ensure performance and revive the growth of small businesses, affording these firms the opportunity to achieve competitive advantage (Selvam *et al.* 2016: 90).

Furthermore, Meyer and Peng (2016: 5) cited that research has supported the Penrose theory for decades, as a result, the application of theory has been successful. The study by Peng *et al.* (2018: 833) discovered the Chinese firm Tencent, which offers grouped internet services, has taken advantage of Penrose theory by embarking on organic growth. This was achieved through a combination of internet services that include text messaging, group chats, online media, and free video calls, as well as sharing of large multimedia files, which led to the success of Tencent (Peng *et al.* 2018: 835). The study found customers were offered one package that enabled them to have different products, thus, offering low cost.

Peng *et al*. (2018: 835) argue for the Penrose theory to be relevant, it needs to be expanded. The authors further state the theory has been developed without any thought of the emergent economies' environment. This is not seen as gap to the Penrose theory in its current form, but as an opportunity for further research (Peng *et al*. 2018: 835). In contrast, the researcher identifies the Penrose theory not incorporating emerging economies' environment as a shortfall to what this theory offers. Kor *et al*. (2016: 1738) highlight the disadvantage of the Penrose theory is when firms grow faster than internal management capacities are equipped, which is likely to result in managerial challenges.

Based on this view, it is very important for construction SMEs to ensure the growth process is managed correctly, where managerial capabilities are developed at the same level of business growth. Nonetheless, due to the previous success of the Penrose theory, the researcher believes the theory has more to offer construction SMEs in achieving a sustainable contribution to economic growth in the Eastern Cape.

2.3.1.3 Peter Drucker (1985) entrepreneurship theory

According to Drucker (1985, cited in Simpeh 2011: 3), an entrepreneur is an individual that continuously searches for change, provides solution(s) to it, and takes advantage of it as an opportunity. Setiawan, Raharjo and Koesmarggono (2017: 2), however, define an entrepreneur as an individual who starts up and runs his or her own firm. While Meyer and Meyer (2020: 270) state that Schumpeter defines an entrepreneur as an individual that creates novel products and services

and brings it to the market by means of new distribution system combinations. Entrepreneurs are opportunity driven and have certain characteristics and skills such as creativity, innovation, business management and business know-how (Meyer and Meyer 2020: 270; Simpeh 2011: 3; Setiawan *et al*. 2017: 2).

This view is supported by the Resource-Based Theory (RBT) of entrepreneurship, which states that access to key resources by entrepreneurs is an enabler of maximising the opportunity based on entrepreneurship and new venture growth (Simpeh 2011: 5). Alvarez and Busenitz (2001: 756) believe it is the firm's unique resources that differ from its competitors that enable a firm to enjoy a competitive edge. However, Barney (2001) argues that due to the lack of attention given to entrepreneurship, the current RBT does not integrate innovation and entrepreneurship acts (Alvarez and Busenitz 2001: 756).

2.3.1.3.1 Liquidity theory

The results of liquidity theory, according to Strobl (2022: 2) and Clausen (2006, cited in Simpeh 2011: 5), is that entrepreneurs with financial capital are likely to obtain resources, effectively enabling them to exploit opportunities and start up new firms. The view of this theory contradicts Hurst and Lusardi, who found this view premature and stated most entrepreneurs managed to start businesses with less capital; financial capital is not the determinant of nascent entrepreneurs (Hurst and Lusardi 2004: 1).

While there is controversy regarding the importance of capital, other research demonstrated that one of the critical factors affecting SMEs is the lack of finances (Economic Development Department 2007: 7; Oyelana and Fiseha 2014: 674; Oyelana and Adu 2015: 14). Obaji and Olugu (2014: 112) assert that accessibility to funding is a major determining factor for the continued existence of many small businesses, since it facilitates entrepreneurship practices. While there is no consensus amongst authors on the importance of finance, recent research by Msomi and Olarewaju (2021b: 286) discovered that lack of access to finance by construction SMEs limits the capability of these firms.

Simpeh (2011: 5) points out that liquidity theory argues the key resources an entrepreneur must have to enable him or her to recognise new opportunities, are

financial and human resources. Based on this theory, if construction SMEs were to exploit opportunities in the market, they will need to be financially afloat.

According to Msomi and Olarewaju (2021a: 107), the Pecking Order theory by Myers (1984) suggests business owners or managers choose internal financing in preference to external financing and when internal company funds are not sufficient, debt financing is preferred over equity financing. This means business owners or managers prefer internal investing over external investing, and this will minimise business exposure to possible high interest rates that can be charged by banking agencies. Hence, in sourcing funding, construction SMEs need to ensure all financing avenues are fully exhausted, starting with internal funding, thereafter external funding, which includes public and private funding. Chapter 3 will further discuss lack of finance as an external factor for construction SMEs. The next section will discuss the theory of human capital entrepreneurship.

2.3.1.3.2 Human Capital Entrepreneurship theory

As explained by Li *et al.* (2019: 1), human capital is viewed as the most vital intangible asset of a company. Okafor *et al.* (2020: 22) and Simpeh (2011: 3) agree human capital entrepreneurship theory advocates that knowledge attained through education and experience shows a resource spread heterogeneously across people and, in effect, central to understanding differences in opportunity recognition and exploitation. In support, Rosman *et al.* (2018: 774) state human capital theory promotes education and training as an investment in human capital, which results in improved employee productivity and efficiency, thus enabling the firm to contribute to economic growth. Isaacs *et al.* (2007: 661) suggest the education and training need to be localised through researching the local environment and circumstances, and this will foster the proper development of construction SMEs, resulting in job creation.

Thwala and Phaladi (2009: 536) assert SA is categorised by a systematic lack of investment in human capital, which has resulted in the labour force having a skewed allocation of crafts skills. In support, Dithebe *et al.* (2018: 1190) determined factors influencing the construction sector contribution to economic growth to include financial, productive, regulation and human resource factors. According to Abdissa and Fitwi (2016: 48), the downfall of SMEs is that they lack

experienced, productive, and innovative human capital. Tayeh *et al.* (2019: 56) claim investment in human resources is important for SMEs to improve their operational skills. To create human capital, a firm should recruit and retain outstanding staff, who have decent level of education, experience, and training, to create value for the company (Rosman *et al*. 2018: 778).

Based on the above, there is sufficient evidence that construction SMEs have not applied human capital entrepreneurship theory. The researcher is of the view this theory enables South African construction SMEs to use education and training as a stepping-stone in attaining competitive advantage and sustainable growth; thus, enabling construction firms to contribute to economic growth.

2.3.1.4 Donaldson and Davis (1989) stewardship theory

According to Sharma and Singh (2022: 16) and Davis, Schoorman and Donaldson (2018: 24), stewardship theory was introduced in 1989 by Donaldson and Davis with the intention to outline and characterise relationships between managers and principals. As stated by Davis (1997a: 24, cited in Schillemans 2013: 544), the aim of the theory is as follows:

> "Stewardship theory was designed for researchers to examine situations in which executives as stewards are motivated to act in the best interests of their principals. In stewardship theory, the model of man is based on a steward whose behaviour is ordered such that pro-organizational, collectivistic behaviours have higher utility than individualistic, self-serving behaviours".

Stewardship theory ensures the model of a manager is based on a steward, whose performance is aligned to that of a firm (Davis *et al*. 2018: 24). This supports Arthurs and Busenitz (2003: 146), who suggest the theory ensures goal alignment between business owner and manager. Keay (2017: 6) points out stewardship theory is used to emphasise co-operation and collaboration, which makes it unique. According to Kor *et al.* (2016: 1729), entrepreneurial and managerial services are bestowed on a firm's manager in any business. In addition, the authors include skills and training, as well as experience of a manager, as vital for the firm.

Nderitu (2018: 28) states the objective mandated to a manager in a firm is mainly to maximise business wealth, achievable when management performance is exemplary. Furthermore, Davis *et al*. (2018: 24) highlight the objective of the stewardship theory is to attain the firm's goal of increasing firm performance, in return increasing sales growth and profitability. Through stewardship theory the firm's goal is achieved where a company offers different sets of incentives that are reputational and non-financial but tend to appeal more to employees. These incentives comprise praise, realisation, and acknowledgement of excellent performance (Schillemans 2013: 545).

Many studies have used stewardship theory to evaluate and improve the performance of family businesses. Eddleston *et al.* (2010: 1047) are of the opinion that a good steward of a family business is a leader that looks after the business assets. Moreover, the authors posit, in line with stewardship, family members have a greater sense of commitment and trust (Eddleston *et al*. 2010: 1047). Banalieva and Eddleston (2011: 1064) point out that stewardship theory perceives that many family leaders are loyal stewards to their businesses, thus, contributing greatly to business performance. This adds to Eddleston *et al*. (2010: 1047), who state this is based on the way stewardship contributes to family business performance, enabling competitive edge.

Consequently, Löhde, Campopiano and Calabro (2020: 391) believe stewardship in a business entrenches the spirit of trust and commitment, not only to family employees but also to non-family employees. Therefore, based on the above literature, stewardship can offer construction SME employees an opportunity to have outstanding commitment and trust in these businesses. This will enable construction SMEs to achieve higher performance and greater competitive advantage.

Keay (2017: 6) claims the spinoffs of stewardship theory can be seen in practice in many Japanese businesses, where managers are very loyal to their companies and place great emphasis on the interest of their businesses. Hence, the viewpoint of the stewardship theory focus being on intrinsic rather than extrinsic rewards (Davis *et al*. 2018: 24). Based on the objectives of this theory, one realises the relevance for this study, as it is geared to ensure maximum performance of

construction SMEs is attained, since construction SME motivation will be intrinsic (Keay 2017: 6; Schillemans 2013: 545). Hence, the adoption of this theory can help enhance management aimed at achieving the organisational goal of increased performance of construction SMEs.

However, based on minor gaps of this theory, Chrisman (2019: 1052) proposes further research to make stewardship theory assumptions more realistic and relevant. The theory is primarily criticised for its assumptions, which are considered as unrealistic and incomplete (Hernandez 2012: 174; Chrisman 2019: 1052). This is because stewardship theory does not consider assumptions about the ability of people to access and process information (bounded rationality) (Chrisman 2019: 1052). Moreover, stewardship theory does not indicate how bounded rationality and information asymmetry play a role in the ability of stewards to recognise the goals of the organisation. Instead, the theory assumes employees are simply aligned to the goals of the organisation (Chrisman 2019: 1052). Nonetheless, the researcher believes the influence of stewardship theory, as an enabler for construction SMEs to achieve sustainable growth is undisputed, based on the evidence in Japanese firms. The next section will discuss conceptual theories on economic growth.

2.3.2 Conceptual theories on economic growth

2.3.2.1 Definition of economic growth

Meyer and Meyer (2020: 268) defines economic growth as a cumulative rise in the generated output, which includes accumulation of production factors that identify a quantifiable measurement of a nation's improvement. In addition, Pietak (2014: 46) agrees economic growth is a primary indicator of the socio-economic conditions of a nation and is used to measure how prosperous that nation is. This implies economic growth is a key determinant of the success of the country. Previous literature identifies the following factors as huge drivers to economic growth:

- accrual of tangible capital, labour, human capital and education;
- a range of institutions favourable to the economy; and
- no hinderance to measure of capital, technology, ideas, foreign investment and the free flow of data (Ahmed, Zhang and Cary, 2021: 1, Marquez-Ramos

and Mourelle 2019: 22; Urbano, Aparicio and Audretsch 2019: 4; Pietak 2014: 47).

2.3.2.2 Theoretical framework of economic growth

Conceptual theories of economic growth

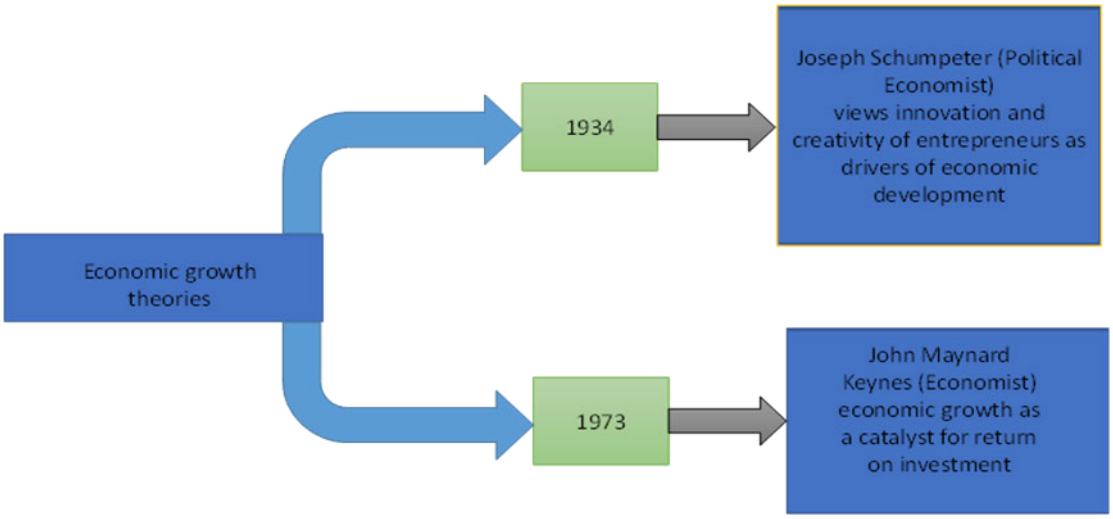

Figure 2.2: Summary of economic growth theories

Source: Developed by researcher

a) Joseph Schumpeter (1934) economic growth theory

Emami (2021: 69) and Pietak (2014: 49) identify the first economic growth theory by Schumpeter which acknowledged innovation and creativity of entrepreneurs as drivers of economic development. Schumpeter's theory is centralised on the entrepreneur being an innovator (Emami 2021:69). In addition, Schumpeter (1934) indicated an entrepreneur should be a risk-taker (Gupta *et al.* 2013: 3).

The entrepreneur-innovator theory yields great profits at the initial stages but over time it drops due to copies of the innovation. Pietak (2014: 50), however, avers Schumpeter's theory is suitable mainly for independent and economically developed countries, since it assumes innovations by entrepreneurs will be driven by private property, competitive markets and efficiency of financial markets. Consequently, based on Schumpeter's theory of entrepreneur-innovation, entrepreneurs are crucial strategic drivers of SME business growth and development. However, the shortcoming of Schumpeter's theory, is it is primarily suitable for democratic and economically developed nations (Tkachuk 2023: 90).

In addition, Henrekson, Johansson, and Karlsson (2024:109) posit, even though Schumpeter's work has challenged the subsequent economic thought, its disadvantage is it greatly abstracts from the roles of risks and uncertainty in economic growth.

b) John Maynard Keynes (1973) economic growth theory

According to Keynes (1973), the theory of macroeconomic policy, entrepreneurs mainly invest their money to get more it in the future (Butos 2020: 552). Therefore, money is the starting point and end goal of every business production process (Arestis *et al.* 2018: 2). This means that every entrepreneur for every business is concerned with the return on investment (ROI) and economic growth is a catalyst for ROI.

Terra, Ferrari Filho, and Fonseca (2022: 9) contend Keynes (1973) argued tax policy can be used by government as a key strategic avenue of stimulating and increasing economic growth, through capital levies and progressive income taxes. In principle, it is safe to conclude government can be a "game changer" in the stimulation of SME growth. In support, Jahan, Mahmud and Papageorgiou (2014: 53) state the phenomenon of Keynes's theory is the government has power to drive economic growth through public policies aimed at driving business growth. Nevertheless, Bilir (2021: 51) criticised Keynes' theory, because it does not pay much attention to the issue of growth; as a result, Keynes does not present a consistent and extensive theory of growth.

c) The relevance of the theories

The two abovementioned theories reviewed in this section assessed entrepreneur-innovation and creativity of entrepreneurs as key drivers of economic growth. Thus, this study argues construction SMEs, through entrepreneur's critical tools such as innovation and risk-taking behaviour, have a major role to play in economic growth. Previous studies (Baah-Mintah, Owusu-Adjei and Koomson 2018: 143; Vasilska 2020: 18; Emami 2021: 69) maintain economic growth is because of business growth, which is linked to entrepreneurship. Hence, the theories of Joseph Schumpeter's economic growth (1934) and John Maynard Keynes (1973) were reviewed.

Schumpeter (1934) encourages an entrepreneur to be an innovator and risk-taker that looks for opportunities that will enable business growth (Emami 2021: 69). Urbano *et al.* (2019:2) argue that to comprehend the phenomenon of the combination of entrepreneurship and economic growth may encourage discerning the dynamic at the micro and macro levels in both the entrepreneurship and economic fields. Previous literature proved an undisputable connection between entrepreneurship and economic growth (Meyer and Meyer 2020: 272). Thus, Schumpeter's theory is suitable for economic growth where an entrepreneur is a great catalyst to spike business growth.

The theory of Keynes (1973) sees an entrepreneur as an investor that seeks more returns in the future. Furthermore, it is important to note a shortcoming identified in Keynes theory shows it does not pay much attention to growth (Bilir 2021: 51). Therefore, both economic growth theories by Schumpeter and Keynes are proposed to assist construction SMEs to ensure full contribution to economic growth, through entrepreneurship as a driver of business growth and sustainability.

2.3.2.3 Measurement of economic growth

Agu *et al.* (2022:1) point out macroeconomic indicators enable nations to focus their efforts on goods, services and other entities that increase economic growth. Furthermore, the authors state GDP is used to determine the size and strength of the country's economy, through the computation of market value for the accounted goods and services rendered within that country in a certain period. In support, Anghelache *et al.* (2020: 243) and Marquez-Ramos and Mourelle (2019: 25) argue that GDP is normally utilised as a tool to measure economic activity. In addition, Oliinyk and Kozmenko (2019: 214) state the primary macroeconomic indicator of the country's overall wealth, is GDP. Stoica, Roman and Rusu (2020: 6) used GDP per capita in their study to measure economic growth, wherein the authors argued that GDP per capita is the most important measure of economic growth. Therefore, GDP is the main measurement used to indicate the trajectory of the economic growth in any country.

2.3.2.4 Theoretical framework to assess the relationship between construction sector and economic growth

Timilsina, Hochman and Song (2020: 3) point out that construction is a key strategic sector in the development of the economy, since it has a strong recognisable linkage with other sectors. Turin (1973) and Wells (1986, cited in Lopes 2010: 3), both recognise a connection between construction investment and economic growth as yielding to socio-economic development. Authors agree the main reason construction sector performance is of critical importance to economic growth, is because any growth in the economy necessitates infrastructure development and investment as a requirement for possible economic growth (Chin *et al.* 2022: 3; Irshad and Ghafoor 2023: 167). Chin *et al.* (2022: 3) further argue construction activities in the construction sector are a key determinant of economic growth, development and economic activities.

Aschauer (2016: 350) discovered a strong significant connection between infrastructure and growth. In their study, Fedderke and Garlick (2008: 18), when examining infrastructure development and economic growth in SA, concluded that was based on both theoretical and empirical evidence, there is a presence of a strong positive connection between infrastructure and economic growth. Irshad and Ghafoor (2023: 172) found a positive input from road infrastructure investment to economic growth. Qifa (2013: 1298) discovered an indication of a very robust connection between construction development and economic growth. Consequently, as a strategic industry for investment, the construction industry could contribute positively on short-run growth. The construction sector can thus be considered a main part of investment programmes, particularly for emerging economies such as SA.

Zhang, Ning and Li (2021: 3) showed that the share of construction in gross output is likely to rise with the level of per capita income in the first stages of economic development. When nations reach a specific level of economic development, the construction production will rise less than national production, in the latest stages of their recovery (Timilsina *et al.* 2020 :3). The study by Zhang *et al.* (2021: 1) further argued the positive connection between the construction industry and the national economy concerns only a declining economy, and in an economic rising trend, the outline of the construction industry. Isil and Umut (2015: 4) state, unlike

the general belief that the construction industry plays a vital role in Turkey's economic growth, the construction industry is not a driving force of economic growth, rather a follower of fluctuations in the macro-economy.

Literature found a significant relationship between infrastructure and economic growth, particularly in low- and middle-income countries such as China, South Asia and Sub-Saharan Africa (Irshad and Ghafoor 2023: 167; Timilsina *et al.* 2020: 2; Gherghina *et al.* 2020: 1; Aschauer 2016: 350). In their study, Irshad and Ghafoor (2023: 167) determined a strong link between roads, railway projects and economic growth. Hence, Mehmood (2022: 80) found the construction industry in Pakistan significantly impacted the economic growth of their country. Similarly, Chin *et al.* (2022: 3) state the construction sector plays a significant role in the Malaysian economy, as the sector contributes directly to the country's economic growth.

This contribution is attributed to the construction sector having the power to multiply an investment, as it produces income more than five times the cost thereof (Mehmood 2022: 58). Timilsina *et al.* (2020: 3) aver there is proof of the presence of a significant connection between construction activity and economic growth. As a targeted sector for investment, the construction industry has the potential to contribute positively on short-run growth. Subsequently, Eze *et al.* (2020: 38) assert that construction SMEs play a huge role in contributing to the GDP of nations.

Contrary to this, the study by Wentzel, Fapohunda and Haldenwang (2022: 16) believe the contribution of South African construction SMEs is greatly questionable, as these businesses fail within their first five years of existence. Although there is an undisputed contribution by the construction sector to the economic growth (Adebowale and Agumba 2023: 1441), limited literature was found on the assessment of the relationship between construction SMEs and economic growth in SA. The next section discusses the overview on challenges facing SMEs.

2.4 OVERVIEW ON CHALLENGES FACING SMEs

Although SMEs are faced with different constraints such as financial, material and equipment, as well as human resources, and higher management skills, in

contributing to economic growth globally (Zutshi *et al.* 2021: 2; Tayeh *et al.* 2019: 56), SMEs have dominated the private sector in both developing and developed countries (Anderson 2017: 1). A World Bank review on SME firm activities discovered the unwavering promise of the World Bank Group to the development and sustainability of SME firms as a primary purpose in its plan to adopt economic growth, job creation and poverty alleviation (Taiwo and Falohun 2016: 37).

According to Abdissa and Fitwi (2016: 47), research shows SMEs underwrite more than 60 percent of economic growth and 70 percent of total job creation in developing nations, while they underwrite more than 95 percent of total job creation and approximately 75 percent of economic growth in developed nations. The authors further point out there has been a drive across the globe to increase the contribution of SMEs over the last two to three decades, by means of drafting policies that assist these SMEs. In support, Taiwo and Falohun (2016: 37) state that more than 95 percent of the Organisation for Economic Co-operation and Development (OECD) businesses are SMEs, and they play a key and vibrant role in contributing to economic growth, providing the source for most new jobs.

Anderson (2017: 1) states because of globalisation of trade, significant strides made by the private sector in developing economies have facilitated the emergence of the SME sector, resulting in the sector playing a crucial role in economic development and job creation. This is no surprise, considering the potential of SMEs to enhance social and economic development, which has left governments in the world very concerned regarding the performance and financing of SMEs (Taiwo and Falohun 2016: 37).

The SME sector contribution to economic growth is evident when considering SMEs employ nearly 55 percent of the working force in Zambia, 98.6 percent in Mozambique, and 20 percent in Tanzania (Anderson 2017: 2). In developed countries, the main challenges affecting SMEs include lack of operating premises for production and marketing, lack of access to credit and finance, regulatory constraints (licencing, organising, illegal business), and lack of good production methods, along with inadequate information, lack of management and business skills, as well as lack of suitable organisational strategy, lack of skills, human

resources and lack of interest to provide training and workshops (Zuofa *et al.* 2023: 3; Abdissa and Fitwi 2016: 48).

Anderson (2017: 6) states, due to the unfavourable business environment, SMEs around the world continue to face challenges that include legal and institutional frameworks, tax laws, bureaucracy, and lack of finance, which affect business start-up and growth. In support, Tayeh *et al*. (2019: 56) are of the view that the external and internal factors that affect SME development are unsuitable regulations, lack of management skills, and insufficient financial resources. In Turkey, construction SMEs are faced with challenges such as lack of business experience, difficulties with cashflow and poor customer relationships (Eke, Aigbavboa and Thwala 2015: 1058). A study conducted by Wang (2016: 176) on key obstacles affecting SMEs in developing countries, discovered that access to finance, high tax rates, market competition, and electricity, as well as politics are major factors that affect SME performance.

According to Obeng (2018: 51), in most African countries, government has established and promoted SMEs as they contribute more that 50 percent to employment and GDP. Lekhanya (2015b: 412) maintains while developed countries are enjoying the benefit of SMEs being the engine for economic growth, it is not the case with developing countries such as SA. There is consensus that, as with other large companies, are not exempted from exposure to various macro environmental factors; which include high level of crime, payment of registration and licence fees, and paying taxes for compliance with government legislation (Xu, Fu and Liu 2019: 4; Cant and Wiid 2013: 707). Bushe (2019: 9) points out part of the micro-environmental constraints SMEs confront in SA, include lack of management skills, key knowledge in business operational spheres such as marketing and human resources, and business financial knowledge. In addition, Bushe (2019: 9) and Cant and Wiid (2013: 707) highlight that many SMEs fail, even though government and the private sector have put interventions in place to support and develop SMEs.

Eke *et al.* (2015: 1056) state some challenges faced by small and medium businesses include insufficient funds, lack of access to markets, lack of supporting structures and low literacy levels. The study by Lekhanya and Mason (2014: 345)

on selected factors influencing the success of rural SMEs in SA found the following key external factors influencing the success of rural SMEs in SA, namely, limited access to funding and poor infrastructure, particularly roads and electricity. Hence, SMEs in SA fail between the first and fifth years of their inception, which is of major concern to the business sustainability of construction SMEs (Wentzel *et al.* 2022: 1).

The report by the SEDA (2016: 7) identified the following challenges faced by the small, medium and micro-enterprises (SMMEs) in SA, which include, inadequate access to finance, poor infrastructure, insufficient levels of research and development, as well as tough labour laws, lack of an educated workforce, and inadequate access to markets. Fatoki and Garwe (2010: 15) investigated the challenges affecting South African SME growth and discovered internal and external factors, namely, lack of access to funding, insufficient management skills, failure to invest in technology, and unfavourable economic environment, along with lack of government support, poor infrastructure, high levels of crime, as well as corruption, and difficult regulations.

Previous research conducted by Lekhanya (2015a: 413) found several constraints faced by SMEs in SA that affect all sectors of business, which include, obstruction to market entry, inadequate business planning during start-up, lack of access to funding, and inadequate knowledge and experience among directors and managers, as well as insufficient access to land and acquiring operating offices, and severe policies and procedures. Similarly, a study by Cant and Wiid (2013: 707) established that key constraints faced by SMEs in SA are inflation and imposed interest rates, high level of crime and unemployment, in addition to reduced demand for products, lack of correct pricing strategies applied, and location of company operating premises.

Sarvari *et al.* (2021: 2) states, although SMEs can be the key role player in the development of the nation's economy, their development can, however, be influenced by the following factors, namely, lack of access to finance capital, lack of an infrastructural base, insufficient information base, and low levels of entrepreneurial skills, as well as poor policy implementation. Likewise, Oyelana and Fiseha (2014: 688) find the Eastern Cape province is facing similar

challenges, even though the SME sector is seen as a tool to foster economic growth and development.

To support this view, the Economic Development Department (2007: 7) conducted research in the city of Port Elizabeth, which identified key constraints affecting SMEs in the Eastern Cape province namely, inadequate funding access, lack of entrance to markets, insufficient access to information, low levels of skills development, and lack of policy and coordination from local government. Similarly, research conducted by Oyelana and Fiseha (2014: 674) in the town of Alice, identified critical constraints affecting SMEs in the Eastern Cape province to include lack of funding, insufficient managerial skills, along with access to advice and information, as well as not enough appropriate training and education.

Supplementary to the above findings, research conducted by Oyelana and Adu (2015: 14) in Fort Beaufort on SME challenges in the Eastern Cape province, established lack of access to proper training, lack of funding, inadequate business skills, and poor market access are key constraints faced by these SMEs. Moreover, the study conducted by Sityata (2019: 98) identified challenges faced by SMEs in terms of growth and development in Mnquma municipality in the Eastern Cape, which include high competition, inadequate access to finance, poor government support, and inadequate training and education, in addition to lack of critical resources, lack of technological equipment and improvement, and absence of marketing power. The following section will discuss the definition of SMEs.

2.5 DEFINITION OF SMALL AND MEDIUM ENTERPRISES (SMEs)

To define SMEs, it is vitally important to start by detailing the difference between the terms SMME and SME, as these two terms are typically used in SA when referring to small businesses (Moise *et al.* 2020: 105). According to Irikefe and Opusunju (2021: 384), the term SMME refers to the broad range of businesses starting from small- and medium-sized established companies, to self-employed owners of micro-enterprises. As explained by Liberto (2020: 1), SMEs are companies that maintain revenues, assets, or a number of employees below a certain limit, and countries differ in defining these SMEs.

Berisha and Pula (2015: 18) state SMEs are defined by adjectives indicating the size of the business, where economists classify SMEs according to some

quantitative indicators. Fatoki (2018: 2) points out, in most cases, the measure used to differentiate between large and small firms is the number of workers. According to Ardic, Mylenko and Saltane (2011: 7), since no universal definition for SMEs exists, this presents a challenge in developing a cross-country analysis of SME data. Etuk, Etuk, and Baghebo (2014: 657) highlight that a medium-sized business in developing countries such as SA can be a small business in developed countries such as China, because the definition of an SME is dependent on its contribution to country's economy. Therefore, Zuofa *et al*. (2023: 3) conclude the definition of SMEs differs among countries and between various industries.

In SA, as stated in the National Small Business Act of 1996, amended in 2003, the South African government defines a SME as:

> "…a separate distinct entity including cooperative enterprises and non-governmental organisations managed by one owner or more, including branches or subsidiaries if any is predominantly carried out in any sector or sub-sector of the economy mentioned in schedule of size standards and can be classified as SME by satisfying the criteria mentioned in the schedule of size standards" (Van Scheers 2018b: 166).

In the case of Nigeria, as stated in the National Council of Industry (2003), enterprises are identified and separated based on the following criteria indicated in Table 2.1 (Etuk *et al.* 2014: 657):

Table 2.1: Enterprise categories in Nigeria

Size	**No of Employees**	**Total Cost Including Working Capital but Excluding Land**
Micro	1-10	Less than 1 million
Small	11-35	1 million to less than 40 million
Medium	36-100	40 million to less than 200 million
Large	101 and above	200 million and above

The definition of SMEs comprises a very wide range of companies, where some are formally registered, whereas others are informal and non-VAT registered organisations (DTI 2005: 18). It is argued by van Scheers (2018a: 27) and Ardic *et*

al. (2011: 7) that the number of staff and sale volumes are perhaps the most accurate determinants to define a SME. Van Scheers (2018a: 164) states that the Bolton Committee (1971) defines SME firms in the manufacturing, construction, and mining sectors according to the number of employees (where employees must be 200 or less) and in the retail, services, wholesale sectors according to monetary turnover (where a turnover range is 50 000-200 000 British Pounds). Furthermore, the European Commission defines SMEs according to the number of employees, which are, companies with 0-9 employees – micro-enterprise; 10-99 employees – small enterprise; 100-499 employees – medium enterprise (van Scheers 2018b: 164).

Fatoki (2018: 2) states that a SME in SA is defined as a registered company with no more than 200 employees and annual turnover in sales no more than R5 million. In the South African National Small Business Act 102 of 1996, SMEs are defined according to five categories of businesses in terms of number of employees per enterprise size category combined with the annual turnover categories, the gross assets excluding fixed property: 1) survivalist enterprise: the enterprise generated revenue is less that the minimum income standard; 2) micro enterprise: the generated business revenue is less than the VAT registration limit of R150 000 per year and no more than five employees; 3) very small enterprise: excluding mining, electricity, manufacturing and construction sectors, these firms employ no more than 10 workers. These form part of businesses operating in a formal market with access to technology; 4) small enterprise: these firms employ up to 50 staff members and are usually well established compared to very small businesses; and 5) medium enterprise: for the mining, electricity, manufacturing and construction industries (van Scheers 2018a: 166). These enterprises employ a workforce of no more than 200 members, whereas for other industries, the maximum number of employees is 100 (van Scheers 2018a: 166).

The National Small Business Act No 102 of 1996 further defines and classifies SMEs into micro-, very small-, small- and medium-sized enterprises within different sectors of the economy, where size of class, total number of full-time employees, turnover and gross asset value are determinants (SA: Department of Small Business Development 1996: 20), as depicted (Table 2.2) below.

Table 2.2: Micro, Very Small, Small and Medium-Sized Enterprises in Different Sectors

Sector or sub-sector in accordance with the Standard Industrial Classification	Size of class	The total full time equivalent of paid employees	Total turnover	Total gross asset value (fixed property excluded)
Agriculture	Medium	100	R 5 m	R 5 m
	Small	50	R 3 m	R 3 m
	Very small	10	R 0.50 m	R 0.50 m
	Micro	5	R 0.20 m	R 0.10 m
Mining and Quarrying	Medium	200	R 39 m	R 23 m
	Small	50	R 10 m	R 6 m
	Very small	20	R 4 m	R 2 m
	Micro	5	R 0.20 m	R 0.10 m
Manufacturing	Medium	200	R 51 m	R 19 m
	Small	50	R 13 m	R 5 m
	Very small	20	R 5 m	R 2 m
	Micro	5	R 0.20 m	R 0.10 m
Electricity, Gas and Water	Medium	200	R 26 m	R 5 m
	Small	50	R 6 m	R 1 m
	Very small	20	R 3 m	R 0.50 m
	Micro	5	R 0.20 m	R 0.10 m
Construction	Medium	200	R 26 m	R 5 m
	Small	50	R 6 m	R 1 m
	Very small	20	R 3 m	R 0.50 m
	Micro	5	R 0.20 m	R 0.10 m

Source: National Small Business Act (SA: Department of Small Business Development 1996: 20)

Msomi and Olarewaju (2021b: 281) and SEDA (2016: 5) agree that SMEs play a vital role in the nations' economy, as they can be used as strategic channels of economic growth, innovation and employment creation. In fact, Scholtz and Gravenorist (2019: 1) state that in SA, SMEs have long been acknowledged as a

driver for the nation to achieve planned economic growth and employment figures. To echo this viewpoint, the South African government recognises the key role played by SMEs to; the extent that a new Ministry of Small Business Development (MSBD) was established in 2014, with the aim of promoting and developing small businesses (DTI 2005: 15). In addition, as a measure to support growth and development of SMEs, the South African government provided key interventions, including financial, as well as technical assistance, training support, business-related policies, and infrastructure (Moise *et al*. 2020: 109).

However, Lekhanya (2015b: 412) argues while SMEs are recognised for their key role in economic growth of developing countries, SMEs are not meeting that promise. This is due to critical challenges associated with business operations, such as legal requirements, lack of trust from financial institutions, and lack of managerial skills, amongst others (Sogaxa *et al,* 2021: 119). According to van Scheers (2018b: 164), the development of SMEs was targeted by the South African government to strategically create jobs and eradicate poverty. As part of economic growth and transformation, the South African government has promised to ensure black-owned firms have access to the construction sector (Mafundu and Mafini 2019: 2; Thwala and Phaladi 2009: 534). Consequently, there has been a significant improvement in black ownership of construction companies over the years between 2018 and 2021 (CIDB 2021: 8).

Furthermore, Nqala (2019: 4) states that SMEs contribute to 50 percent of GDP on average, and in many economies, SMEs account for the majority jobs, while in the manufacturing sector, SMEs contribute close to 60 percent of employment. Regrettably, the contribution of SMEs has declined to 42 percent of GDP since 2011 (Moise *et al.* 2020: 105). A study by Oyelana and Fiseha (2014: 15) suggests the South African government and all its agencies, as well as policy makers, have not played their part in the support for SMEs, as government policies and strategies have not supported these SMEs. In adding to this, Dapaah, Thwala and Musonda (2017: 8) highlight the government has not been monitoring the plan to support SME growth and development.

Mxunyelwa and Lloyd (2019: 1) nevertheless believe there is significant recognition of the role played by SMEs in the economic development of SA, where

it is estimated 91 percent of formal businesses are SMEs and they contribute between 51 to 57 percent to GDP. This recognition has resulted in an increase in the number of construction SMEs in SA in only a few years (CIDB 2020: 10). In addition, transformation in the construction industry has assisted in the increase of SMEs in the construction industry (CIDB 2020: 10). According to Abor and Quartey (2010, cited in Mafundu and Mafini 2019: 3), the majority formal firms are generally SMEs and contribute between 52 and 57 percent to economic growth.

The DTI (2005: 8) found that small companies account for 98 percent of all firms in SA and contribute 35 percent towards its economic growth. Windapo *et al.* (2020: 424) maintain there are more SMEs than established firms in the South African construction sector, hence, construction SMEs are supposed to contribute more than large businesses and are a source of help for the country's economy (Nqala 2019: 4). The next sub-section discusses definition of construction SMEs as integral part of this study.

2.5.1 CONSTRUCTION SMEs

Pheng and Hou (2019: 21) define construction as a structured process of producing and maintaining the built environment, which incorporates all planned activities that contribute to the development of a certain kind of object. Moreover, construction is regarded as a complex sector of the economy, since it integrates different activities, which include manufacturing, energy, finance, and labour, as well as equipment, amongst others (Tlapana and Mngeni 2021: 108; Rameezdeen and Ramachandra 2008: 499). The CIDB defines a construction SME as an enterprise that has a limited tendering capacity based on its grading (Kamal and Flanagan 2014: 3).

As stated by Alagidede and Mensah (2018: 1), the construction sector is a major contributor to the production of goods and services in numerous industries such as transport, hospitality and manufacturing. The sector is the major driver of economic growth and development in developing countries since it contributes directly to GDP (Onat and Kucukvar 2020: 1). In support, Tlapana and Mngeni (2021: 108) state that in developing countries such as SA, the construction sector is viewed as a key strategic driver of economic growth. Through improving productive linkages and stimulating national product growth and job creation, the

final products and services from the construction sector increase economic infrastructure, promoting permanent benefits over systemic productivity and the pattern of social welfare (Serrado *et al.* 2019: 74). Windapo *et al.* (2020: 425) point out that the construction sector is viewed as a secondary sector, as it transforms manufactured products into final products.

Nyakala *et al*. (2022: 376) and Rotar *et al.* (2019: 3297) contend there is a need to work hard in stimulating the economy in developing countries such as SA, through sectors such as the construction industry, which will improve the nation's socio-economic development. The construction sector is highlighted as a major contributor to the economic growth of a country (Lekan, Clinton and Uduak 2021: 1). To achieve this, it must be ensured that government implements policies that enable smooth trade for both local and international construction business (Anderson 2017: 22). For example, the government of Malaysia has signed free trade agreements that allow local construction companies to compete with international companies, thereby strengthening development of the Malaysian construction industry (Ab Rani *et al.* 2018: 22).

The construction sector contributes between 5-10 percent of GDP, with string total impacts on the national economy through infrastructure development, while it also attracts FDI (Serrado *et al.* 2019: 74). Lopes (2010: 3) emphasises that the construction sector plays a significant role in the transformation and development of the economy to achieve economic growth. The sector continues to be the leader where job creation and generating real output for economic growth are concerned (Taylor 2020: 2).

According to Tsado *et al.* (2019: 127), there is a significant contribution by the construction sector to GDP in every nation. The authors further state the construction industry ensures other sectors have an appropriate working environment in which they can grow, as well as creating the right starting point for an energy efficient country that aims to be sustainable in an environmental context. In the interim, Sogaxa *et al*. (2021: 120) are of the view the construction sector combines several activities, which include project planning, project design, selecting a reliable contractor, and the execution of infrastructure projects.

Durdyev and Ismail (2012: 883) acknowledge the importance of the construction sector having a major effect in stimulating the country's economy, since it makes a direct contribution to the economic development and economic activities of the country by means of job creation and procurement of services and products required for project execution. Hence, the role of the construction sector has been widely recognised in building the country's economy, job creation and redistribution of wealth (Cheelo and Liebenthal 2020: 398), through government building infrastructure; for example, road construction and building of houses, to name a few (Alaloul *et al.* 2021: 2). This has resulted in the governments in most developing countries identifying construction SMEs as a strategic vehicle to enable economic growth and development, since they contribute through job creation and improving lives (Scholtz and Gravenorist 2019: 1).

Consequently, Tlapana and Mngeni (2021: 108) state it makes sense why construction sector SMEs are soft targets for job creation and wealth distribution, since they are labour intensive by nature and enable many businesses to participate in the building of the economy. For example, through policy implementation, the government of Zimbabwe has driven the SME sector, including construction SMEs, to create employment and contribute to the country's economy by facilitating access to finance for these firms (Mashizha, Maumbe and Sibanda 2019: 1). Nonetheless, Alaloul and Musarat (2020: 4) indicate the construction industry has been criticised for being a major contributor to carbon emissions and global warming. As a result, the industry is under pressure to produce efficient, cost-effective and low energy buildings within less time (Alaloul and Musarat 2020: 4).

Wentzel *et al*. (2016: 1480) maintain the role of construction SMEs is considered of critical importance to economic growth, since government often uses SMEs as vehicles to create job opportunities and stimulate economic growth. Dithebe *et al*. (2018: 1185) support the idea that construction SMEs are the biggest contributor to economic growth, when compared to large business, since SMEs represent a higher percentage of the industry, which makes the construction sector a powerful presence in the economy. Hence, Alaloul *et al.* (2021: 1) maintain the construction sector has a strong connection with economic activities, which directly or indirectly affects other sectors of the economy and, subsequently, the wealth of the country.

The Eastern Cape government should, therefore, target construction SMEs as vehicle to bring about economic growth and development through devising forms of business support, including policy formulation, aimed at construction SME development (Tlapana and Mngeni 2021: 108). Consequently, this study seeks to identify key elements that will enable construction SMEs to contribute to economic growth.

2.5.1.1 Construction SME characteristics

2.5.1.1.1 CIDB grading of the construction SME

Adendorff, Appels and Botha (2011: 43) draw attention to a restriction for construction SMEs, where in terms of CIDB regulations, the project size an entity may tender for is limited. The authors indicate construction SMEs that are registered for grade one are only allowed to bid for projects up to a value of R200 000, whereas contractors registered for grade nine may bid for an unlimited project value.

Cameron (2007, cited in Adendorff *et al*. 2011: 43) avers the CIDB is unhappy with the high concentration of construction SMEs in the lower levels that do not graduate to upper grades. This challenge is of concern to the CIDB, particularly in the Eastern Cape, with grade one contractors comprising 91.8 percent of registered contractors in the province, as shown (Table 2.9) below (Adendorff *et al*. 2011: 43).

2.5.1.1.2 Size and age of the construction SME

The size of a firm, as Abeyrathna and Priyadarshana (2019: 561) state, can be defined as the volume of production capacity the firm possesses for a required product by its clients. In addition, Rahman and Yilun (2021: 101) aver the size of the enterprise is an important factor influencing profitability. However, Niresh and Velnampy (2014: 63) found a weak relationship between firm size and profitability of manufacturing firms in Sri Lanka. This is contrary to Rahman and Yilun (2021: 113), who determined a significant relationship between the size of the firm and profitability in China. Furthermore, Abeyrathna and Priyadarshana (2019: 561) highlight that no consensus has been reached on the relationship between firm size and profitability.

Opeyemi (2019: 1) claims business size has a great influence on the performance in any firm. Moreover, Makina *et al.* (2015:14) and Hung, Vinh, and Thai (2021: 243) argue firm characteristics such as age and size are the greatest determinants to SME access to finance. The authors maintain SMEs with access to finance grow faster in size. Conversely, Rahman and Yilun (2021: 102) discovered no direct influence between firm size and firm performance. In addition, Hung *et al.* (2021: 248) indicated there is a positive relationship between firm size and firm performance in Vietnamese private firms.

A further discovery by Opeyemi (2019: 10) shows the size of the firm directly influences total revenue of construction companies in Nigeria. Similarly, Makina *et al*. (2015: 17) established the SME size significantly impact s business turnover. However, it is unclear whether construction SMEs are profitable or realise an increase in turnover; such that they can contribute positively to the economy. There is a need to, therefore, determine how firm size influences the profitability and performance of construction SMEs in the Eastern Cape, SA.

2.5.1.1.3 Location of the construction SME

Researchers agree many SMEs usually start their operation at informal locations, such as the home of the business owner, and after some time the business grows gradually until there is a need to move to larger and more spacious premises (Barnard, Kritzinger and Kruger 2011: 111; Lumbwe, Nwobodo and Mbohwa 2018: 1207; Bosch, Tait and Venter 2011: 580). This adds to Mazzarol and Choo (2003: 190), who contend SME owners and/or managers have a great task in selecting the location of the firm, as this decision plays a critical role in the business success (Lumbwe *et al.* 2018: 1207). These authors argue an oversight and misjudgement in selection of the business location can affect the firm negatively, in terms of access to markets, suppliers and labour. In support of this viewpoint, Lumbwe *et al.* (2018: 1205) agree business location is one the key decisions each business needs to take, and the correct decision will result in good performance and sustainability of the business.

Szymańsk and Płaziak (2014: 381) point out that the decisions of selecting a proper location of a firm are, however, complicated and require a deep analysis of many factors. Consequently, choosing a location does not only concern identifying

the business operation, but it is also about identifying premises that will maximise benefits to the SME and minimise operational costs (Lumbwe *et. al.* 2018: 1207). Banwo, Du and Onokala (2017: 3) maintain firms in urban areas enjoy location-specific factors, such as: good infrastructure, smooth value chains, and a versatile, skilled labour supply. Rural areas also offer benefits, such as: low operating costs and strong cultural support, enjoyed by firms located in those areas (Banwo *et al*. 2017: 3).

Lumbwe *et. al*. (2018: 1207) state that it is vitally important for construction SMEs to carefully consider the implication of an unsuitable location impacting business performance and productivity decisions. Conversely, Barnard *et al.* (2011: 125) found a weak positive relationship between location and business performance in SMEs in Port Elizabeth. Moreover, a study in Poland by Szymańsk and Płaziak (2014: 389) also revealed no direct link between the location of the construction SMEs and potential sales in the market. In addition, Moo and Eyiah (2020: 425) discovered the location of construction SMEs is a disadvantage and an obstacle to their growth in Ghana. This is due to the quality of labour forces, social services, government agencies and institutions, including access to work and clients (Moo and Eyiah 2020: 425). Therefore, there is no consensus amongst authors on the connection between SME location and business performance. The next section discusses the state of the SME sector at present, in the Eastern Cape province.

2.6 CURRENT STATE OF THE SECTOR IN THE EASTERN CAPE

According to Akpan (2020: 14), the Eastern Cape province has a total number of 242 367 SME firms. SMEs are supposedly to be the driver of socio-economic development through job creation and direct contribution to GDP (Moo and Eyiah 2020: 416). However, a study by Oyelana and Fiseha (2014: 688) discovered SMEs do not play a critical role in the socio-economic development of the town of Alice in the Eastern Cape. This is attributed to SMEs facing challenges such as competing with large organisations in the industry (Sogaxa *et al*. 2021: 118). Moreover, Oyelana and Fiseha (2014: 688) established SMEs are not contributing to either the reduction of the unemployment rate or alleviation of poverty. The authors identified challenges such as lack of finance, unsatisfactory managerial skills, inadequate advice and information, and lack of training, as major causes of the insufficient SME contribution to employment creation.

Another study, conducted by Oyelana and Adu (2015: 8) in Fort Beaufort in the Eastern Cape, established that SMEs are the major contributors of job creation and reduction of poverty; the authors did acknowledge these SMEs could contribute more than they are. Their contribution was made through upliftment of the status of the unemployed youths, since they were able to secure sustainable employment with existing SMEs (Oyelana and Adu 2015: 8). However, the study concluded SMEs in the Eastern Cape province face challenges such as lack of funding and insufficient managerial skills that limit SMEs in contributing immensely to the economic growth of the province (Oyelana and Adu 2015: 8). Generally, there is consensus by these studies that SMEs in the Eastern Cape are facing major challenges that need to be eliminated, hence, this study.

A report by Akpan (2020: 15) maintains the contribution of the SME sector, for both the informal and formal sectors, remains low in the Eastern Cape, with only 9.2 percent of households citing income received is from a business they own. The report further highlights this is due to low job creation by the formal sector, as well as lack of drive of entrepreneurship by residents due to COVID-19 (Akpan 2020: 18). In support, Fiseha *et al*. (2019: 212) posit lack of policy support for entrepreneurship, particularly in the rural areas, is a major constraint to the contribution of SMEs in the Eastern Cape. The ECDC (2020: 18) argues government should focus its efforts in assisting SMEs, which were heavily affected by economic challenges in year 2020, such as COVID-19, as most SMEs had to cease their operations because of the pandemic, levels of lockdown and to shed jobs in trying to salvage the impact on their businesses.

The report by ECSECC (2018: 35) states the Eastern Cape government has put measures in place to enhance the SME contribution by bringing investment to the sustainable energy sector. These measures include the implementation of key projects such as the N2 Wild Coast Road in the province and capacitation of traditional leadership and communities, to reduce the barriers to entry for small businesses (ECSECC 2018: 11). In addition, the report by the ECSECC (2019: 15) states interventions such as attracting investment, enhanced sustainability in the energy sector, and facilitating engagement with affected communities were put in place. The aim is to promote and support the contribution of SMEs in the province

through formulation of a sustainable energy forum under the renewable energy programme.

However, reports show the contribution of SMEs in the province remains low due to the challenges faced by the SME sector, including skills shortages, lack of technical knowledge and lack of experience to deal with the large formal sector (ECSECC 2019: 20). This results in SMEs in the province only participating through the supply of peripheral non-core services, for example, catering, sanitation and security, in big contracts of Independent Power Producers (IPPs). Although positive GDP growth was experienced in the third quarter of 2020 in the Eastern Cape (ECDC 2020: 18), a bigger chunk of SMEs in the province remains under distress, due to challenges such as lack of education and management training, the high crime rate and lack of finance, to name a few (Oyelana and Fiseha 2014: 688).

Based on the above, it can be concluded that SMEs can be a good vehicle for governments to use in bringing about economic growth and development in nations. Nonetheless, these SMEs are facing undesirable challenges that limit their potential to contribute positively to economic growth. Hence, the Eastern Cape province needs to empower SMEs, particularly construction SMEs, by eliminating key constraints that hinder their performance, to ensure their full contribution to economic growth is achieved.

2.7 CONTRIBUTION OF SMEs GLOBALLY AND TO THE SOUTH AFRICAN ECONOMY

Current literature is of the same view that SMEs are the key drivers of economic growth and development for both developed and developing countries (Madanchian *et al.*2016: 1; Zafar and Mustafa 2017: 2; Amoah and Amoah 2018: 154; Moise *et al.* 2020: 105). Ehab and Esam (2015: 4) and Herr and Zeynep (2017: 2) agree the role of SMEs is significant in the economic development of many nations, for both developing and developed countries. According to Moise *et al*. (2020: 105), SMEs contribute significantly to every country through job creation and poverty reduction and in terms of economic value in SA, they contribute 42 percent to the GDP.

Amoah and Amoah (2018: 151) state SMEs play a crucial role in socio-economic growth and development of countries, where SMEs are recognised as vehicles for innovation, economic growth, employment, and social mobility. As a strategic initiative, the Coega Development Corporation (CDC) (2020: 96) recognises it makes economic sense for small businesses to be a channel for employment creation and wealth distribution, since small businesses are known to employ a large number of staff, where employment is maximised, and people have a fair chance to contribute to the development of the economy.

Globally, it is agreed SMEs contribute a bigger proportion of GDP and employment, which propels economic growth (Msomi and Olarewaju 2021b: 281; Dlamini and Schutte 2020: 1; Gyimah and Boachie 2018: 59). Chien *et al.* (2021: 14) and Tripathi (2019: 261) concur SMEs contribute more than 55 percent of GDP and in excess of 65 percent of total employment in developed countries, while SMEs contribute more than 60 percent of GDP and above 70 percent of total employment in developing countries. Amoah and Amoah (2018:151) highlight that in the case of developing countries, SMEs account for 45 percent of total employment and 33 percent of GDP.

According to Akpan (2020: 11), other than SMEs contributing to the nation's economy, diverse reasons have necessitated governments globally to assist SMEs, namely, SMEs have always been able to take on extensive numbers of unskilled labour; where in SA, the small business sector contributed 50.3 percent to job creation. Second, SMEs are usually owned by local businesspersons and there is a better likelihood of them supporting and enhancing the country's internal systems. Last, SMEs are typically viewed as a starting point to boost and support entrepreneurship, which drives innovation (Akpan 2020: 11).

Chien *et al.* (2021: 3) explain that as a measure to uplift SMEs, governments in developed countries introduced green finance projects, intended to assist SMEs that take part in protection of the environment. For example, in the Information and Communication Technology (ICT) sector in Europe, SMEs offer innovative solutions to increase the life cycle of ICT equipment by saving energy through cloud computing and reducing e-waste disposal costs; achieved by means of government support (Chien *et al.* 2021: 4).

In the case of the British government, a guarantee scheme called Small Firms Loan Guarantee (SFLG) was formulated and later replaced by the Enterprise Finance Guarantee (EFG), to assist profitable SMEs that would not have been able to source credit form lending institutions due to insufficient guarantees and or track record (Agnese, Rizzo and Vento 2018: 4). As a result of the EFG scheme SMEs in Britain realised growth, as barriers to growth were eliminated by the scheme.

Likewise, the government of Zimbabwe introduced an Industrial Development Policy, aimed at supporting and promoting SMEs (Dlamini and Schutte 2020: 2). According to Dlamini and Schutte (2020: 6) these policies strengthen existing parastatals so they can provide full support to SMEs, adding to infrastructural support, technology upgrade, quality control, and market access, as well as financing facilities.

In SA, Moise *et al*. (2020: 105) reveal SMEs are enterprises that provide employment for up to 200 employees. In addition, Nqala (2019: 3) states the importance of the SME sector is acknowledged globally, based on its great contribution to several socio-economic objectives such as high growth of employment and increased economic growth. SMEs comprise 98 percent of formal businesses in SA, contribute 47 percent to job creation and account for 42 percent of the country's GDP (Moise *et al*. 2020: 105). Similarly, in the construction sector, SMEs constitute approximately 87 percent of total businesses (CIDB 2023: 5).

In most EU countries, SMEs represent more than 99 percent of businesses, of which 93 percent are micro-enterprises, less than six percent are small enterprises and less than one percent are medium enterprises (Rotar *et al.* 2019: 3297). In the case of Nigeria, Oduntan (2014: 78) argues SMEs have not made a major contribution to the growth and development of the Nigerian economy, due to the lack of implementation of policies supporting SMEs.

Madanchian *et al*. (2016: 4), in their study on Malaysian SMEs, revealed these small enterprises comprise 97.3 percent of total business establishments and contribute 33.1 percent to GDP, 59.5 percent to employment, and 38.4 percent to exports. The study further discovered that due to the significant SME contribution

to the country's economy, there is a great need to dedicate essential resources and skills to improve the performance of SMEs (Madanchian *et al*. 2016: 4).

In China, there is approximately 97 percent of SMEs in the private sector that contribute a total of 60.2 percent to GDP; where manufacturing contributes 18.5 percent, construction contributes five percent and agriculture-related industries contribute 3.2 percent (Kheng and Minai 2016: 40; Muriithi, Ndegwa and Juma 2018: 208). According to Ehab and Esam (2015: 4), construction sector SMEs in Egypt have contributed greatly to economic development, contributing 11 percent of total employment and accounting for five percent of GDP average over the period 2009/2010 to 2013/2014.

In Pakistan, the role of SMEs is undisputable, as evidence shows they account for more than 30 percent of the nation's GDP, contribute Rs.140 billion to fares and provide approximately 65 percent of employment (Zafar and Mustafa 2017:8). In the case of Tanzania, SMEs contribute more that 33 percent to economic growth (Zafar and Mustafa 2017: 4). In Bangladesh, small and medium businesses account for 99 percent of all companies, while contributing 58 percent towards the country's employment. Similarly, in Ecuador, SMEs account for 99 percent of all firms and contribute 55 percent towards employment (Etuk *et. al*. 2014: 659).

In Nigeria, SMEs and micro-enterprises form 95 percent of firms, contribute 60 to 70 percent of employment and account for 55 percent of GDP (Etuk *et al.* 2014: 659). While in Morocco, SMEs account for 93 percent of businesses and contribute 38 percent of production, 33 percent of investment, 30 percent of exports, and are responsible for 58 percent of employment (Etuk *et al.* 2014: 659). In the case of Ghana, a study conducted by Amoah and Amoah (2018: 155) revealed that SMEs play a greater part in the creation of jobs and employment, offering 86 percent temporary and 81 percent permanent jobs.

According to Arthur-Aidoo *et al.* (2016: 4), SMEs in Ghana account for approximately 92 percent of all private sector businesses and contribute approximately 70 percent towards the nation's GDP. As highlighted by Alaloul *et al.* (2021: 2), globally construction industry contributes greatly to country's GDP approximately five to seven percent. In Nigeria, the construction industry contributes approximately six percent of GDP, where construction SMEs holds the

greatest percentage. In Taiwan, construction sector SMEs contribute 98 percent to the country's GDP (Usman and Alaezi 2016: 2).

In the case of SA, before 1990, SMEs did not receive enough support from the South African government, instead, big business enjoyed more support leaving SMEs with less likelihood to survive (Tlapana and Mngeni 2021: 109). After 1990, the SME sector became part of the South African economy, with SMEs contributing more than 60 percent of job creation and 50 percent to GDP (Nqala 2019: 4). Hence, in many developing countries such as SA, creation of new SMEs is of critical importance, since SMEs tend to be drivers of expansion, economic growth, increased job creation and reducing the rate of poverty in the economy (Van Scheers 2018b: 164).

Fatoki (2018: 3), however, observed that due to challenges faced by SMEs in SA, for example, lack of finance, insufficient government support, skills shortages, and inadequate business management skills, it is difficult for small businesses to operate past the second year of trading. Consequently, the South African government acknowledged the unfair competition, complicated rules and regulations that negatively obstruct the SME contribution to the economy. In addition, a report by the DTI (2005: 11) highlights these inappropriate legislative and regulatory measures, amongst which are income tax registration, Value Added Tax (VAT), Unemployment Insurance Fund (UIF), and Compensation for Occupational Injuries and Diseases (COID) (Cant 2020: 64; Windapo *et al*. 2020: 424). These regulations and the impact thereof will be further discussed in the next chapter.

Like other governments in the world where SMEs are viewed as economy boosters (Herr and Zeynep 2017: 2), the government of SA has long identified SMEs as a priority sector and driving force for economic growth and development, enabling the country to achieve its targets (Scholtz and Gravenorist 2019: 1). Msomi and Olarewaju (2021b: 281) argue that new SMEs in SA sometimes fail to contribute to economic growth, due to the government not providing advice, education, and training about financial management to SMEs. This is attributed to financing being of critical importance in enabling growth, sustainability and viability of SMEs (Msomi and Olarewaju 2021b: 282). Nevertheless, Statistics SA

discovered a great need for various SMEs to be established, since more than 75 percent of the country's population generates income for SMEs and 70 percent of rural South Africans are poor and need SMEs for employment creation (Oyelana and Adu 2015: 8).

Furthermore, in SA, there are 800 000 SMEs in the private sector (Oyelana and Fiseha 2014: 675), with the CIDB (2017: 16) reporting 170 349 construction businesses in SA, of which 164 960 are construction SMEs. According to SEDA (2016: 13), SA had a total number of 2 182 283 SME firms in 2016, which employed 9.1 million people. These small enterprises comprise 91 percent of private sector formal businesses and account for between 52 and 57 percent of GDP, while contributing approximately 61 percent towards employment (Zafar and Mustafa 2017: 4; Cant and Wiid 2013: 707). In addition, Masocha and Fatoki (2018: 3) state the SME sector in SA is trusted for its stable contribution to economic growth.

Hence, the South African perspective regarding the SME sector, is that SMEs contribute to job creation, poverty reduction, wealth creation and improving the economy, by means of employing people, particularly the youth, and by providing essential services to local communities (Oyelana and Adu 2015: 10). However, Fatoki (2018: 2) points out that although there are considerable contributions by new SMEs in SA, 75 percent of these SMEs do not grow, due to the environmental challenges they face, and SA remains the top in the world where the high failure rate of SMEs is concerned. This makes it crucial for the South African government to create an environment that will facilitate SME sector growth (Tlapana and Mngeni 2021: 115).

SEDA (2019: 24) compares the SME contribution to all enterprises, excluding agriculture, financial intermediation, insurance and government institutions, as illustrated in Figure 2.4 below. In the first quarter of 2019, the share of the contribution to SMEs to the turnover of all enterprises decreased by two percent from 40 percent in quarter 1 of 2018 to 38 percent in quarter 1 of 2019. Similarly, the contribution share of the total expenditure decreased by one percent from 39 to 38 percent and the SME share of capital investment also declined one percent

from 15 to 14 percent (SEDA 2019: 24). Based on these numbers, it is evident the SME contribution to the SA economy did not change between 2018 and 2019.

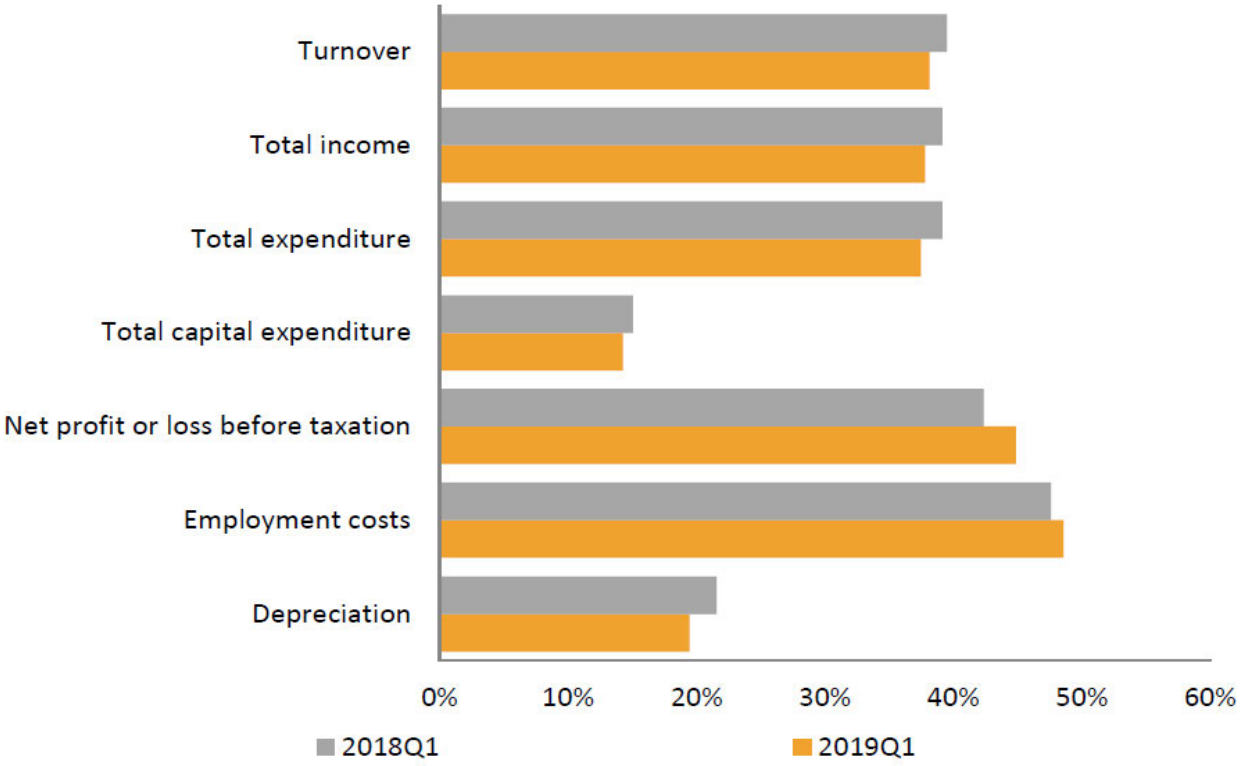

Figure 2.3: SME economic contribution

Source: SEDA (2019: 24)

2.8 CHALLENGES FACED BY CONSTRUCTION SMES GLOBALLY

Olanrewaju, Tan and Kwan (2017: 763) highlight the argument by researchers that for a nation to have a successful and sustainable development, it requires a closer look at the performance of its construction sector. The authors further describe the construction sector as a dynamic and complicated industry that involves different stakeholders, whose interaction demands information to be assessed and transmitted (Olanrewaju *et al.* 2017: 763). In addition, sustainability of the construction sector is explained by Athapaththu and Karunasena (2018: 51) as a facilitator of environmental responsibility, social awareness and economic profitability goals. Hence, the construction sector must form part of the country's strategic objective tools to achieve economic growth and development.

In this regard, Ofori (2018: 2) encourages nations globally to form construction development boards, to create value for clients, facilitate strategic leadership to

construction firms and stakeholders, and assist in the development of policies that will promote improved construction industry stability, efficiency and effectiveness.

In Pakistan, the construction sector is, on the one hand, perceived as the backbone and pillar of the business environment (Tariq and Rehman 2020: 472). On the other hand, Soomro, Shah and Mangi (2019: 5) find SMEs, particularly construction SMEs in Pakistan, is the most neglected sector, even though it continues to show signs of growth. Tariq and Rehman (2020: 472) acknowledge the construction sector in Pakistan has failed with some of its pipeline projects. The authors add there is a daily increase in complexity of construction projects, namely roads, bridges, and building infrastructure, where these projects have unique challenges, including workforce productivity; decentralisation; perceived organisational politics; and relationship conflicts (Tariq and Rehman 2020).

Similarly, in the South African construction sector, Dithebe *et al*. (2018: 1190) identify workforce unproductivity as one of the factors influencing the performance of the construction sector due to skills deficiency in the industry. Khattak and Mustafa (2019: 1340) discovered the key factors that negatively affect construction project performance in Pakistan include: weak empowerment of project managers by project sponsors; lack of political stability; political interference by government officials in construction projects; and lack of organisational internal support for project execution; as well as inadequate experience in technology required to implement projects.

In SA, Eke *et al*. (2015: 1062) studied the causes of failure in construction SMEs in Johannesburg and identified skills shortage and employee incompetence as major contributing factors. In addition, Selai (2019: 6) highlights that construction SMEs in SA are faced with challenges that include lack of working capital, customers, laws and regulations, as well as insufficient equipment and technology. Furthermore, a study conducted by Aigbavboa and Thwala (2014: 771) on challenges facing black owned construction SMEs in Nelspruit, SA, discover that lack of capacity to deliver complex projects and lack skilled professionals to execute projects are evident.

The above factors identified various aspects, including empowerment, politics, internal support and technology inexperience (Khattak and Mustafa 2019:3), which

are a hindrance to the success of the construction industry, which results in low levels of contribution to economic growth in Pakistan (Khattak and Mustafa 2019: 1322). According to Masooma (2021: 1), the Ministry of Planning, Development and Special Initiatives in Pakistan is in the process of setting up a CIDB in the country. Masooma (2021: 1) states the purpose of the CIDB is to foster, support, and accelerate the private construction industry and attract and safeguard investment in the construction sector (Masooma 2021: 3).

The CIDB in SA was established by the CIDB Act No. 38 of 2000, with construction SME development their primary purpose (Aigbavboa and Thwala 2014: 772). Chiloane-Nwabueze, Tanyimboh and Glendinning (2022: 3) state the CIDB has driven contractor performance by means of providing support through the necessary information related to project bidding. Consequently, the grading of construction companies has been growing, where these firms were able to undertake bigger projects (Chiloane-Nwabueze *et al.* 2022: 3).

In Ghana, the construction industry is a key driver of economic development and contributes to the GDP of the country, where the industry creates a large number of employment in both the formal and informal sectors (Frimpong, Sunindijo and Wang 2020: 37). The authors indicate that the sector showed great improvement to GDP contribution from 2006 to 2017: with 5.7 percent in 2006; 13.5 percent in 2015; 13.7 percent in 2016, and 13.7 percent in 2017 (Frimpong *et al.* 2020: 37). However, there is a general feeling that there are no interventions by the Ghanaian government to encourage construction industry performance (Ofori-Kuragu, Owusu-Manu and Ayarkwa 2016: 133).

Owoo and Lambon-Quayefio (2018: 1), nevertheless, disagree with this viewpoint, as they believe the construction sector in Ghana is performing well, with a significant contribution to GDP, job creation and the economy. They based their opinion on the Ghana Statistical Service report (2018), which states that between 2009 and 2013, the construction and real estate industry achieved approximately 14.34 percent contribution to the country's GDP (Owoo and Lambon-Quayefio 2018: 1). Furthermore, Akinradewo *et al.* (2019: 341) agree the Ghanaian construction sector is showing signs of growth and maintain it is the largest contributor to the country's economy. However, the authors concede the

constraints faced by this industry are like those faced by other developing countries, namely, late payment of contractors, lack of access to land, lack of technology to execute projects; and budgetary constraints (Akinradewo *et al*. 2019: 343).

In support, Owoo and Lambon-Quayefio (2018: 12) state the pertinent challenges that affect the construction sector in Ghana include, land acquisition and access to work permits, lack of skilled labour and raw materials; late payment of funds to contractors, and corruption in construction projects; along with institutional and policy reforms in the construction industry. Moreover, Ofori-Kuragu *et al.* (2016:134) identified similar factors that affect the construction sector contribution to the Ghanaian economy, which comprise lack of access to finance, delays in payment of invoices by government, corruption of officials in the construction sector; and political influence by officials on tender awards.

Akinradewo *et al*. (2019: 343) maintain that while the construction sector in Ghana is faced with challenges, the industry is gaining more ground with recent improvements in their activities, with many untapped opportunities developing from the recent interventions. The authors further state that the effect of globalisation in the industry is one of the improvements that will yield inflow of investment in Ghana (Akinradewo *et al.* 2019: 343). According to Ofori-Kuragu *et al.* (2016: 135), a Construction Industry Development Authority (CIDA) was proposed in Ghana to manage, regulate and develop the construction industry. Hence, Frimpong *et al.* (2020: 37) indicate recommendation in Ghana for the formation of a statutory body that will fulfil almost the same mandate as the CIDB in Malaysia, which is to control and foster continuous improvement in the construction sector in Ghana. The role of the CIDB can, therefore, not be underestimated in the development of the African economy, as it improves construction industry performance (Chiloane-Nwabueze *et al*. 2022: 3).

In the United Kingdom (UK), the construction sector plays a crucial role in the country's economy and contributes approximately nine percent to GDP (Ofori-Kuragu *et al.* 2016: 133; Malik *et al.* 2019: 348). Equally important, Rhodes (2019: 13) maintains the decisive role of the UK government, with its interventions for change in the construction industry, is yielding positive results. The author states

the UK construction sector contributes £117 billion to the UK economy, which amounts to six percent of the country's GDP (Rhodes 2019: 4). In support of this statistic, the House of Commons (2015, cited in Malik *et al*. 2019: 348) reports the UK construction industry contributed approximately 6.5 percent to the economy of the country in 2014. Furthermore, Malik *et al*. (2019: 362) and Rhodes (2019: 3) highlight the greatest challenge facing the UK construction sector is a labour shortage. The authors lament the skilled-based immigration policy is making it difficult for unskilled workers to enter the country, thus, posing the threat of a labour shortage (Malik *et al*. 2019: 362).

To limit the impact on challenges faced by the UK construction sector, the government has established six national bodies that play a key role in facilitating the implementation of construction objectives in the country. These include: the Construction Industry Board (CIB), the Movement for Innovation (MI), the Construction Best Practice Programme (CBPP), and the Housing Forum, as well as the Local Government Task Force (LGTF), and Government Construction Client Panel (GCCP) (Abbott 2001: 10). The role of these bodies to ensure the full contribution of the construction industry cannot be estimated in the development of UK's economic growth.

In Malaysia, Olanrewaju *et al*. (2017: 763) maintain the Malaysian construction industry is an active sector that accounts for approximately three percent of the country's GDP. In addition, the construction sector is the fourth biggest employer of labour (Olanrewaju *et al*. 2017: 763). Even though the Malaysian construction sector seems to be stable, it is faced with a number of challenges, which include health and safety issues; delays; low-profit margins; and a shortage of skilled labour; along with a lack of investment in research and development, and cost overruns (Olanrewaju *et al*. 2017: 763). Nevertheless, the country's construction industry is properly governed by the Malaysian CIDB, formulated in 1994 with the following key objectives: to ensure the promotion and stimulation of construction industry growth and expansion and facilitate and encourage research on topics relating to construction industry development (Ofori 2018: 11).

The CIDB in SA is, likewise, mandated to oversee the sustainability and growth of construction enterprises across the country and provide advice to the government

on the stimulation of construction sector performance (Bikitsha and Amoah 2022: 2029). To fulfil some of these objectives, the CIDB has launched a National Contractor Development Programme (NCDP), with the aim of addressing the growth constraints and develop sustainable contracting capacity in the construction sector (Adediran and Windapo 2016: 214). The Malaysian CIDB has been active on the ground with efforts to upgrade the level of knowledge and skills of construction businesses that have not proved to be successful (Kamal *et al.* 2012: 81).

In Sri Lanka, Athapaththu and Karunasena (2018: 52) discovered the construction sector is not capable of fulfilling the demand for sustainable buildings in the country. The authors believe this challenge results from key constraints faced by the construction businesses, including lack of resources; shortage of technical skills; drawbacks in accomplishing quality and good profitability; and lack of understanding of sustainable aspects (Athapaththu and Karunasena 2018: 52). To address challenges faced by the construction sector in Sri Lanka, the government established the Institute for Construction Training and Development in 1986, to enhance the capacity of training institutions and facilitate the development and advancement of training programmes, which would enable the construction sector to meet the needs of semi-skilled and managerial personnel (Ofori 2018: 11).

In addition, the Construction Training and Development institute was established to advance the quality and efficiency of the construction sector by promoting innovative approaches in technology and industrial development activities, thus ensuring construction work contributes to the economy (Ofori 2018: 11). Furthermore, as Gunawardhane and Karunasena (2016: 233) explain, the CIDA was formulated in Sri Lanka through restructuring the Institute for Construction Training and Development (ICTAD), to facilitate construction activities in the country and restrain challenges facing the construction sector. A study by Jayalath (2019: 109), on the effectiveness of CIDA in the construction industry in Sri Lanka, revealed the body was effective in addressing matters related to adjudications and disputes between contractors and employers.

Based on the above literature reviewed, both developed and developing countries are found to rely on construction boards to enhance and support the contribution

of the construction industries; therefore, their work cannot be underestimated. Hence, the South African industry introduced the CIDB Act No. 38 of 2000, with a key aspect of the board's responsibility to ensure construction SME development (Aigbavboa and Thwala 2014: 772). However, there is no evidence whether the support provided by the CIDB improved construction SME performance. This study seeks to investigate the influence of the CIDB on construction SMEs in the Eastern Cape.

2.9 CHALLENGES FACED BY CONSTRUCTION SMEs IN SA

Globally, there is consensus that SMEs play a major role in contributing to economic development in both developed and developing countries (Ofori-Kuragu *et al*. 2016: 133; Tayeh *et al*. 2019: 52; Sogaxa *et al*. 2021: 118). Onat and Kucukvar (2020: 2) maintain the South African construction sector plays a critical role in the country's economy, although there are unavoidable challenges that, from time to time, affect the sector negatively. In support, a report by the DTI revealed South African construction SMEs underwrite meaningfully to the country's GDP and have proven to be the main contributors to job creation (Lekhuleni, Mulongo and Kholopane 2018: 1641).

Regrettably, even though construction SMEs contribute significantly to the country's GDP, 70 to 80 percent of construction SME entrepreneurs who start-up a new business fail within the first year (Wentzel *et al.* 2022: 1), 60 percent in their second year and 90 percent by the tenth year (Rungani and Potgieter 2018: 3; Wentzel *et al*. 2016: 1479). This is because of challenges faced by construction SMEs that limit and impede their performance, and thus the development and growth of the South African construction sector (Nyakala *et al.* 2022: 376; Bikitsha and Amoah 2022: 2035). For example, the outbreak of COVID-19 had a negative impact on the construction sector, resulting in the postponement of major construction projects, affecting construction firms, particularly SMEs (Fazel 2021: 21).

Recent research conducted by Nyakala (2022: 8) identified critical factors that affect the success of construction SMEs in SA, namely, lack of consistent measurement of quality assurance process, lack of planning and management control, inadequate training in quality improvement techniques and tools, as well

as lack of government support, and unskilled employees. Nonetheless, a study by Nyakala *et al.* (2022: 387) on challenges faced by construction SMEs regarding road infrastructure projects in SA, discovered critical challenges such as poor construction design, insufficient technical and engineering skills, lack of management involvement, and insufficient technological skills, as well as lack of project team training. According to Selai (2019: 6), one of the challenges facing construction sector SMEs includes an increase in competition due to long-term real decrease in work demand, which has resulted in the construction SMEs shedding labour, while large construction firms have moved to international markets.

A study by Windapo *et al.* (2020: 424), furthermore, discovered that procurement strategies impact construction SMEs. This adds to SEDA (2016: 7), which reported the lack of access to good and proper infrastructure is a great obstacle to construction SME business growth and development, creating unnecessary costs in managing business operations. Yilmaz and Cetin (2018: 41) argue that infrastructure is also a key catalyst in assisting improvement to production factors. Furthermore, infrastructure helps to attract investment, for example, research shows that lack of sufficient electricity was an impediment to private investment in Uganda (Yilmaz and Cetin 2018: 41).

Wentzel *et al*. (2016: 1480) believe that internal factors of construction SMEs that lead to business failure emanate from the lack of management skills, financial knowledge, and lack of expertise in functional areas such as marketing and human resources. In addition, Dithebe *et al*. (2018: 1186) contend there are many businesses owners or managers in the construction sector who do not have formal training nor a degree, and this is a huge obstacle to their business growth. In addition, Tsado *et al.* (2019: 130) determined that lack of requisite skills and technical know-how, a poor educational framework and weak financial capability, are major challenges affecting construction SMEs. However, Mafundu and Mafini (2019: 9) highlight that occupational health and safety, human resources, leadership style, and workplace communication, as well as resource allocation, are the greatest challenges affecting black-owned construction SMEs. In addition, Dithebe *et al.* (2018: 1190) established that factors influencing construction sector performance include financial, productive, regulation and human resource factors.

Five major bottlenecks were identified in a study by Pillay and Mafini (2017: 10), which affect the construction sector; these are skills and qualifications, procurement practices and systems, supply chain relationships and the structure of the construction industry. Additionally, Adeyemi and Aigbavboa (2018: 1570) distinguish key challenges affecting construction SMEs, such as lack of technical and financial capacity, unethical practises, as well as inadequate coordination between stakeholders, amongst others. Moreover, some internal factors found lacking in the construction SMEs include the inability to set strategic gaols, reluctance to seek advice and a lack of management commitment (Wentzel *et al*. 2016: 1480).

It was also found by Bikitsha and Amoah (2022: 2035) that small construction firms fail because of insufficient financial support and inability to obtain funding from financing agencies, the high level of competition within construction SMEs, delay in payment of completed work by government institutions and private clients, as well as lack of work continuity, lack of government support such as training on policies, and unethical practices. Furthermore, Windapo and Cattell (2013: 74) revealed the key internal and external factors affecting construction sector performance comprise: public sector capacity; mismatches between available and required skills; procurement practices; and the capacity for sustainable empowerment, as well as lack of access to affordable mortgage/credit and interest rates, technology, availability of infrastructure, in addition to government statutes and regulations.

Finally, Wentzel *et al*. (2022: 1) discovered factors threatening the sustainable business performance of construction SMEs, such as lack of management knowledge by owners or managers, in addition to insufficient business knowledge and self-knowledge, as well as industry experience of a selected area. Based on the above literature reviewed, construction SMEs are seen to be facing critical constraints that affect their contribution to economic growth. Brien and Hamburg (2014: 65) assert that communities are a good support system for SMEs, as they allow local small enterprises to collaborate and learn. Furthermore, the authors state social media offers a great opportunity for fast support within the community (Brien and Hamburg 2014: 66).

The mentioned constraints all maintain stagnant growth of these construction SMEs (Nyakala 2022: 1). Hence, the South African government needs to formulate interventions, sooner rather than later, that will address challenges faced by construction SMEs. The internal and external factors influencing the contribution of construction SMEs will be further detailed in the next chapter. The next section will discuss different business forms of construction SMEs.

2.10 BUSINESS FORMS OF CONSTRUCTION SMEs

According to Adediran and Windapo (2016: 214), the CIDB enabled the government to spend approximately 80 percent of infrastructure projects on large companies with a CIDB grading between seven and nine, representing 11 percent of the firms in the construction industry. The authors further highlight the increase in complex projects and concentration on higher grades, necessitating contractor development that will enable construction SMEs to participate in infrastructure projects; these businesses constitute approximately 80 percent of CIDB registered contractors (Adediran and Windapo 2016: 214). This might require businesses to explore diversification or specialisation.

Guyader and Piscicelli (2019: 1060) assert divergence in business has not been underutilised by firms. Khamaksorn, Tah, and Kurul (2020: 10) indicate that many businesses across the world have, nonetheless, recently been trying different strategies in order to grow and expand their businesses through varying forms of growth strategies and the pursuit of other business forms. Adendorff *et al*. (2011: 48) posit that key corporate strategies exist that might be used by construction SMEs to attain business growth and development, namely subcontracting and joint ventures (JV). In support, Butkoviüa, Boškoviüb and Kataviü (2014: 506) state construction companies engage in acquisition, merger, JV and product service development, to respond to the present, extremely competitive environment in the market. Offei, Kissi and Badu (2016: 460) contend these strategies allow construction SMEs to participate in a big contract that, in return, boosts their technical and managerial expertise.

2.10.1 Subcontracting

In the construction industry, subcontracting is one of the strategies utilised by the main contractors as a measure to mitigate uncertainty in the construction market,

thus, transferring the risk to the subcontractor (Noganta 2019: 15). According to Manu *et al.* (2013: 1018), subcontracting is a systematic process of transferring the performance of work activities. Furthermore, the authors state this consequently impacts how project manpower is recruited, affecting the way project activities are performed regarding the structure of control and patterns of regulation (Manu *et al*. 2013: 1018).

Bikitsha and Amoah (2022: 2029) explain large construction businesses are suitable to subcontract a portion of the project work to construction SMEs. In addition, Sogaxa *et al.* (2021: 122) determined critical factors that lead to these main contractors subcontracting part of or all their work, include the ability to influence manpower flexibility, assist in completing the project within timelines and a reduction in project costs. Since sub-contractors are paid based on the work executed in the project, subcontracting is task-completion driven, rather than time-spent-on-site driven (Manu *et al*. 2013: 1018). Therefore, subcontracting can be seen as a vehicle that offers countries an opportunity to integrate construction SMEs as part of economic growth activities.

For example, SME construction companies in the UK account for more than 90 percent of the construction industry, which means they form an important part of the construction sector value chain, where most work is done through subcontracting (Manu *et al*. 2013: 1018). Subsequently, these authors estimate that 80 percent of the tenders awarded to main contractors in the UK are executed by subcontractors and this on its own justifies the value of subcontracting in the construction sector (Manu *et al.* 2013). Whereas in SA, the amount of work main contractors normally subcontract to SMEs is approximately 75 percent of the total project value (Noganta 2019: 16).

While subcontracting is beneficial for the construction industry, it encompasses many negative effects, which include the lack of quality due to under-skilled manpower, non-payment of subcontractors and employees, and loss of job security (Manu *et al*. 2013: 1018). In support, Noganta (2019: 15) states challenges associated with subcontracting are in connection with non-payment; poor quality of works; as well as delays in issuing and approval of construction drawings.

2.10.2 Joint Venture (JV)

According to Debellis and Pinelli (2020: 100), a JV occurs when two or more separate entities choose to collaborate with a common strategic purpose through an incomplete contract. JV as a strategic alliance offers distinct organisations a solid foundation to enable them to collaborate and complement each other, through the participation of key required resources to execute a new project (Khamaksorn *et al.* 2020: 10). This type of venture can happen in two ways, either through domestic or international business collaboration agreements (Gale and Luo 2004: 34; Debellis and Pinelli 2020: 99). JV is a key growth and development strategy that offers construction SMEs an opportunity to expand and develop in their field of work (Adendorff *et al*. 2011: 48).

Expansion is not limited to domestic level but is also at international level, as it goes beyond national borders (Debellis and Pinelli 2020: 102). Offei *et al.* (2016: 460) point out a JV provides foreign companies with an opportunity to collaborate with local companies and participate in the execution of work in other countries through international JV, particularly in countries where a completely foreign-owned contracting business may not be permitted to operate (Gale and Luo 2004: 41). Debellis and Pinelli (2020: 100) also argue that JV are a great avenue to gain new technology. In support, Khamaksorn *et al.* (2020: 10) point out an international JV offers opportunities not only for new technology but also for new markets in a foreign country.

Although JV present new opportunities, Ahiaga-Dagbui *et al.* (2011: 2) contend many studies have found international JV are not easy to manage, due to various complications presented by the collaboration of two businesses from different countries, including political challenges, cultural and legal policies, as well as technical and managerial capabilities, amongst others. To mitigate and resolve these complications, the board of directors for the independent JV companies plays a critical role (Debellis and Pinelli 2020: 103).

In collaborations such as JV, Soerodjo (2020: 399) highlight the importance for parties to support each other in ensuring the project is carried out in an effective and efficient manner. Mba and Agumba (2016: 267) found construction firms should consider the following important business characteristics in committing to a

JV project; commitment from all partners, complementary technical skills and technology, along with trust from partners.

A study by Gale and Luo (2004: 41) on factors affecting construction JVs in China, discovered that these business arrangements enabled companies to expand their businesses and brought skills and knowledge from joint businesses that resulted in project success. Furthermore, the study identified key aspects of the JV for JV partners, which include that valuable time obligation is required from the JV partners, as is sharing of critical skills, in addition to which JV partners must have sufficient information regarding the partner prior to committing to JV negotiation processes. When the conditions of the joint undertaking have been agreed, a JV agreement must be formulated and signed, with both parties aware of the clauses on the agreement; and key clauses that include roles and responsibilities, sharing of profits and dispute resolution processes that are clearly defined (Gale and Luo 2004: 41).

Research by Khamaksorn *et al.* (2020: 15) on the trends of construction JV projects in Thailand, discovered that international construction joint venture (ICJV) projects are critical for sharing new knowledge between entities in collaboration, through the mechanism of mentoring and coaching, on-the-job training during the construction process, presentation of daily and performance reports; and face-to-face meetings, as well as communication, and progress and technical meetings. Furthermore, the above study indicates major benefits of ICJV projects in Thailand with foreign companies from developed countries such as France and Japan.

In SA, this has not been the case, instead the failure rate of international JVs has been of great concern, resulting in project delays and disruptions (Mba and Agumba 2016: 267). Therefore, ICJV projects do not prove to be a reliable strategy for growth and expansion for SMEs in the construction sector in SA. This is due to construction SMEs being fragile and volatile in nature (Bikitsha and Amoah 2022: 2035).

2.10.3 Public-Private Partnerships (PPP)

According to Wang and Zhao (2018:177), a PPP can be defined as a long-term partnership between the public and private sectors for the purpose of planning, designing, finance, and construction, as well as management of a project

traditionally the responsibility of the public sector. In addition, Osei-Kyei and Chan (2018: 2806) posit that PPP can be defined as the sharing of risk and responsibilities among the parties involved. Furthermore, Carbonara and Pellegrino (2018: 258) define PPPs as agreements between public sector bodies and private sector entities, where they enter into contractual agreements for the construction or management of public sector infrastructure facilities by the private sector entity on behalf of the public sector entity.

The private sector, typically, carries full responsibility for designing, financing, construction and running the public facility over an agreed timeframe (Osei-Kyei and Chan 2018: 2807). The advantage of PPP is that it enables local economic growth and job creation (Carbonara and Pellegrino 2018: 258). In addition, PPPs are expected to advantage government by means of greater efficiencies and innovation, risk reduction, and better accountability, as well as transparency among all involved, and more (Wang and Zhao 2018: 177).

Developed countries such as Western Europe, Australia and North America (including the USA and Canada) have benefited from PPP implementation, resulting in governments from developing countries being attracted to PPP (Osei-Kyei and Chan 2018: 2807). Similarly, governments in developing countries adopted the use of PPP for infrastructure, with SA being the leader in Sub-Sahara African (SSA) countries (Fombad 2014: 67).

Osei-Kyei and Chan (2017: 92) indicate the reason for slow progress in PPP implementation in developing countries is due to political instability, corruption, lack of appropriate skills and unattractive financial markets. Though the government of Ghana implemented PPP in construction projects, it is important to note those projects are not progressing successfully (Osei-Kyei and Chan 2018: 2807). In addition, delays in the completion of negotiations have negatively affected PPP project progress in developing countries (Osei-Kyei and Chan 2017: 92).

According to Carbonara and Pellegrino (2018: 266), PPPs are not conducive for construction SMEs due to high entry barriers that require robust financial backgrounds and a high level of experience. Conversely, Battisti (2019: 135) maintains PPPs are conducive for construction SMEs, as they can support

construction SMEs in several ways that include financial, organisation, and human resources, along with market access. This is achieved through the participation of construction SMEs in the co-design and co-development of innovation with PPPs (Battisti 2019: 135). Nevertheless, Joseph *et al.* (2021: 24) are of the view PPPs are needed in the SME construction sector, since there is frequent political interference in SME intervention programmes. The authors further state PPPs will increase transparency and curb unethical practices, amongst other benefits (Joseph *et al.* 2021: 24). Thus, PPPs are an appropriate tool that can be utilised by the Eastern Cape government to enhance the SME intervention in the province.

2.10.4 Consortium

Kolbehdari and Sobhiyah (2014: 372) define a consortium as a flexible legal contract that can be used in the construction industry to form a group of two or more companies that work together to achieve a common objective. In addition, consortiums are usually formed due to implementation of large-scale projects that are too complex for a single entity to manage (Kolbehdari and Sobhiyah 2014: 372).

According to Osei-Kyei and Chan (2017:93), the costs for assembling and setting up a consortium includes the costs of engaging professionals. Further to this, Kolbehdari and Sobhiyah (2014: 372) argue consortium management is very complicated and difficult due to the existence of at least two businesses with management systems, values, and views. Therefore, a consortium can be used by two or more construction SMEs with different expertise as a vehicle to execute complicated projects, where one construction SME does not have sufficient expertise. Furthermore, a consortium can be adopted by construction SMEs to achieve financial muscle and support to usefully execute larger projects where one construction SME cannot thrive. The next section will discuss construction categories.

2.11 CATEGORIES OF CONSTRUCTION

As explained by Tsado *et al.* (2019: 126), construction involves certain activities that include the development of residential buildings, commercial, and recreational facilities, as well as heavy and complex infrastructural projects such as roads, bridges, rail tracks, and refineries, amongst others. Cheelo and Liebenthal (2020:

12) assert construction determines the ability to transform investment effort into the desired investment outcomes. There is consensus regarding the construction industry having four major categories of operations, which include: residential housing construction; institutional and commercial building construction, specialised Industrial construction and infrastructure and heavy construction (Tsado *et al*. 2019: 127), confirmed by Ahady, Gupta and Malik (2017: 255). In addition, Arthur-Aidoo *et al.* (2016: 172) states construction SMEs embark in different categories of operations that include building of houses, hospitals, roads and water projects, among others. The following section will discuss construction categories.

2.11.1 Residential Building

Residential building refers to construction projects that include building, repairs, and renovations of housing and high-rise apartment structures (Elbeltagi 2009: 11). The main difference noted between different building types is attributed to occupancy characteristics. In addition, residential or apartment buildings refer to a place used for the purposes of living that have a cost attached, whereas commercial refers to a place used to gain profit (Craighead 2013: 551), with examples in the next section.

2.11.2 Institutional and Commercial Building

Institutional and commercial building involves construction projects that deal with the building of schools, sports arenas, shopping centres, and hospitals, as well as stadiums, retail stores, warehousing, and light manufacturing plants, along with multi-storey building for offices and hotels (Elbeltagi 2009: 12). In addition, Muhwezi *et al.* (2012: 21) highlight that within the construction industry, there is a small important part that consists of commercial construction.

2.11.3 Specialised Industrial Construction

Specialised industrial construction refers to large scale complex projects that involve a high degree of technological complication, such as oil refineries, steel mills, chemical processing plants and coal fired power plants (Elbeltagi 2009: 13). Infrastructure and heavy construction are discussed next.

2.11.4 Infrastructure and Heavy Construction

Projects normally executed by government agencies and large private firms are referred to as infrastructure and heavy construction, which include highways, tunnels, bridges, as well as pipelines, drainage systems and sewage treatment plants (Elbeltagi 2009: 13). Furthermore, Muhwezi *et al*. (2012: 21) assert these projects are critical in every nation, since they affect quality-of-life and living standards of people. Therefore, construction SMEs play a part in all the above discussed categories. The next section will discuss government support for SMEs.

2.12 GOVERNMENT SUPPORT FOR CONSTRUTION SMEs

With the high SME failure rate in SA, urgent intervention by the government is needed, with practical rather than theoretical solutions, to curb this high failure rate (Muriithi 2017: 44). In response to the high construction SME failure rate, the South African government has put measures in place to enable the development of construction SMEs through contract involvement, in addition to drafting of policies and regulations relating to empowerment of these SMEs (Tlapana and Mngeni 2021: 109).

2.12.1 Financial Support for Construction SMEs

Over the past few years, the South African government has established measures to support and strengthen the SME sector (Windapo *et al*. 2020: 425). According to Bushe (2019: 17), government institutions were set up to support SMEs in SA, such as Khula Finance Enterprise and SEDA, to name a few. For example, the DTI established the SEDA with the sole mandate to develop, support and promote SMEs in SA and further enable growth and sustainability. However, many construction SMEs do not have knowledge of the availability of these government institutions and the services they provide (Bushe 2019: 17). Hence, Ngibe (2020: 56) states government agencies such as SEDA and others, which are a vehicle to finance and provide training and support, should rigorously be marketed to new SMEs to create awareness of their services. Therefore, the support of these agencies to construction SMEs is questionable.

As part of facilitating financial services for the SME sector, the Broad-Based Black Economic Empowerment (B-BBEE) Act 52 of 2003, was formulated by the South African DTI as part of growth strategy through equity and empowerment policies.

This was done to restructure the South African economy and enable significant participation of black people, women and underprivileged communities, ensuring a positive contribution to economic growth (DTI 2016a: 7). The B-BBEE unpacks strategies to uplift SMEs for transformation and enhance funding provisions for business growth (Pieterse 2015: 1). For construction SMEs to qualify for government funding and support, these small enterprises are required to be fully complaint with B-BBEE regulations and codes (Reddy 2016: 467).

Anwana (2020: 3) states that though there have been various amendments to the B-BBEE Act over the past 25 years to improve the plight of black people and correct the injustice of the past, judgement by scholars has, however, proven the Act to have failed to achieve it primary objectives. In support, Reddy (2016: 468), finds minimum success by the B-BBEE in SA, because less information has been provided regarding the Act by government. Another major challenge that has impaired the success of the B-BBEE Act is the practice of fronting (Emuze and Adlam 2013: 131; Reddy 2016: 468; Anwana 2020: 3).

2.12.2 Government Incubation Programmes for Construction SMEs

Incubation is explained by Sanga and Mselle (2018: 14) as the systematic process of prescribing and regulating external and internal conditions, to make them favourable for development of the new firm, through solving growth constraints in a particular field. The contention is that structured programmes led by government are a pro-active approach (Sanga and Mselle 2018: 15).

Al-Mubaraki and Busler (2015: 20) argue support of start-up firms aims to foster accelerated business or technological growth to conduct public-private construction projects. The authors discovered that business incubation programmes offer the necessary tools and skills to enable start-up firms to grow and survive in the market, through the stages of growth, until the firm is fully established and can contribute to the economic growth of the country (Al-Mubaraki and Busler 2015: 18). In support, Schutte (2019: 1) argues that in SSA incubation has been classified as a crucial project that will enable entrepreneurs and owners of construction SMEs to start-up and grow their businesses in successful manner.

In addition to the above discussion, the incubation process is further understood to be a two-dimensional approach, namely, technological and entrepreneurship

(Sanga and Mselle 2018: 14). The technological approach is interested in ensuring new technology is fully cultivated before it is handed over for application in the marketplace, whereas the entrepreneurship approach is interested in ensuring entrepreneurial skills are correctly nurtured and fully developed to withstand business challenges (Sanga and Mselle 2018: 14). Hence, the incubation process was developed (Schutte 2019: 12). Accordingly, the aim of the incubation process is to ensure the transfer of experience, skills, and knowledge from incubators to participants. Moreover, incubators facilitate networking, a means of connecting entrepreneurs with highly influential people that help the business to grow in its initial stages (Bosch 2021: 9).

Wiggins and Gibson (2003: 60) developed five critical tasks the business incubation process must achieve in order to reach maturity stage. These include to, define a clear system of measurement for success for the SME business under the incubation programme, facilitate entrepreneurial leadership for the SME owner, create and offer value-added services to SME firms in the programme, and identify a balanced new-firm selection process for incubation, as well as to nurture SME firms under the incubation programme, so they may attain access to required human and financial resources to succeed (Al-Mubaraki and Busler 2015: 18).

Activities performed by incubators to foster construction SME growth are illustrated (Figure 2.4) below. These activities include development of key expertise, building strong local networking, creation of local solutions and the facilitation of access to finance (Bosch 2021: 9). The impact of these activities on construction SMEs is to increase their economic contribution and capabilities (Schutte 2019: 12; Wiggins and Gibson 2003: 60).

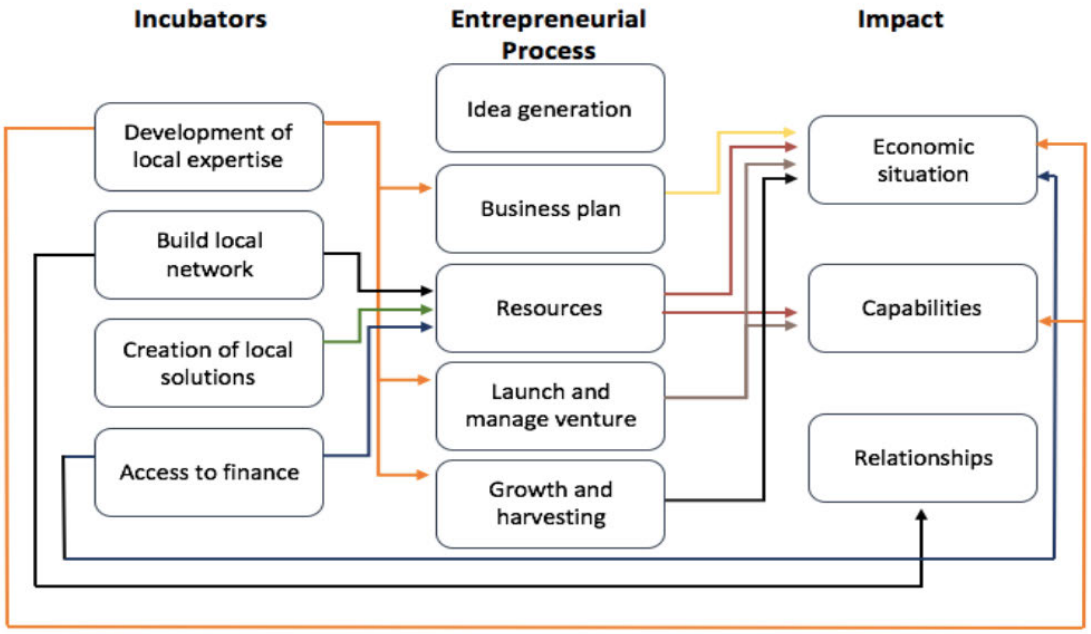

Figure 2.4: Impact of Incubation

Source: Bosch (2021: 9)

According to Sanga and Mselle (2018: 14), the purpose of the business incubator programme initiated by the governments in Belgium and Spain was to facilitate the establishment of foreign business, while in Germany, it was aimed at ensuring the development and survival of start-up firms. Furthermore, the German government used incubators to enable transition to a market economy (Schutte 2019: 1). This has resulted in a success rate of 90 percent for incubated businesses in Germany (Muriithi *et al.* 2018: 204). The South African government can learn from Germany by implementing incubation centres across the country, as these centres provide an opportunity to increase the incubated business success rate (Agrawal, Kumar and Tyagi 2021: 140).

In the case of SA, the Department of Public Works (DPW 2008) emphasise the importance of Contractor Incubator Programmes (CIP) for incubation of SME contractors, with the aim of assisting construction SMEs owned by Previously Disadvantaged Individuals (PDIs) to sharpen their expertise and managerial skills, so they can survive and remain sustainable in the construction market (Dapaah *et al.* 2017: 1). As a result, a substantial amount must be set aside by government to invest in SME business incubation from the small business and innovation fund, to encourage and assist start-up businesses (Schutte 2019: 1).

The primary objective of the CIP is to facilitate an environment conducive for construction SME growth and development of to be sustainable in the construction industry, by developing their expertise and managerial skills (Dapaah *et al*. 2017: 1). The incubation process (Figure 2.5), which takes three years for the construction SME to complete, has six stages, namely, construction SME selection process and skills gap identification, implementation of the required training, initial assessment on training provided, and on-job mentoring of participants by incubator, along with exit assessment to determine the sustainability of the construction SME; and exit examination to certify the construction SME has completed the CIP (DPW 2008: 28).

According to the DPW (2008: 28), the above process is continuously monitored and evaluated by the incubator management team responsible for participant certification.

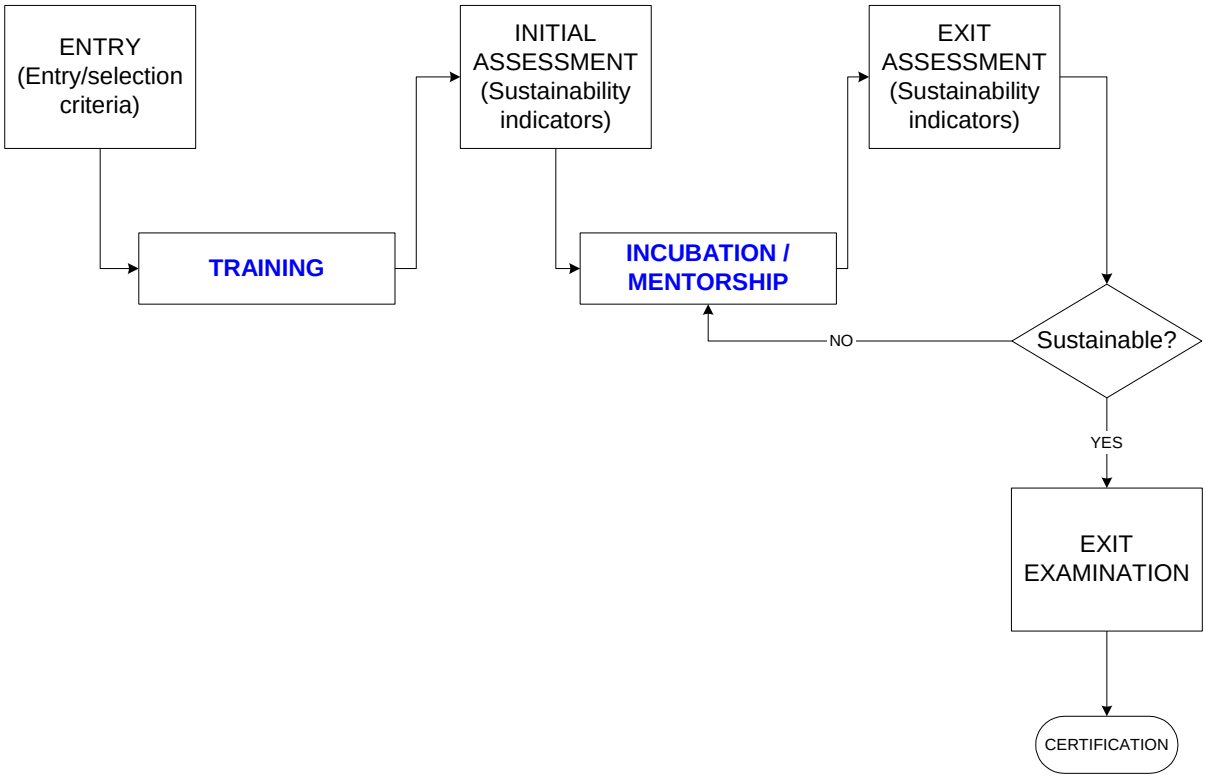

Figure 2.5: Incubation process

Source: DPW (2008: 28)

A study on factors affecting SME start-up and growth in Tanzania, conducted by Anderson (2017: 22), discovered insufficient effective programmes for business incubation. The author found inadequate effective incubators and resource centres

to facilitate skills transfer from large companies to SMEs (Anderson 2017: 22). Therefore, the South African government needs to ensure programmes in place for incubators facilitate the transfer of skills, knowledge, and experience to construction SMEs, by putting measures in place that will monitor the entire incubation process.

The importance of business incubation in developing countries was studied by Al-Mubaraki and Busler (2015: 25). The authors discovered incubation programmes such as contractor development programmes (CDP) in developing countries such as SA, Ghana, and Tanzania, can be used as a catalyst to fast-track economic development and advance entrepreneurship climates and technology transfer when applied in a strategic manner. This can be achieved by ensuring the South African government sets sufficient budget aside to support CDP to enable participation by large companies (Anderson 2017: 22; Dapaah *et al.* 2017: 8).

Findings from a study by Dapaah *et al*. (2017: 8) on performance evaluation of construction SME development programmes in SA, show although incubation programmes met their intended goals, implementation of the mentorship phase was not properly rolled out, due to unavailability of large organisations. To attract these organisations, the South African government can implement tax incentives for organisations; both incubators and construction SMEs who participate in the programmes. While their study showed complete implementation of CIP for construction SMEs, Dapaah *et al*. (2017: 8) state there is limited evidence on whether the CIP enabled construction SMEs to contribute positively to economic growth. For the CDP to contribute positively to the performance of construction SMEs, government and CDP implementing agencies need to be observant of the importance of mentorship and recruit mentors who meet the minimum qualification as prescribed by the South African Council for the Project and Construction Management Professions (Dapaah *et al*. 2017: 8).

2.12.3 Construction Sector Development

Globally, there is a need for the development of small and medium construction firms, with the focus on those businesses operating within the lower grades of the CIDB, for enablement of the SMEs to produce quality infrastructure (Wentzel *et al*. 2016: 1478). Construction sector development is a determined, well-managed and

organised process aimed at improving construction sector capacity to meet the need to support national economic growth (Ofori-Kuragu *et al.* 2016: 136).

According to Ofori (2012: 8), the primary aim of construction sector development is to increase value for money to industry patrons, enable the viability and competitiveness of local construction companies, and optimise the role of all contributors and stakeholders, by taking full advantage of technological and human resource development processes. The DPW (1997, cited in Thwala and Phaladi 2009: 535) states in SA, contractor development is crucial to enable previously disadvantaged people to form part of the construction sector and facilitate the redistribution of wealth, since most contractor businesses are black.

Mahadea and Simson (2010: 393) state SA registered a positive economic growth through construction sector development, because of the stimulus from public sector investment, which saw the construction of roads and the Gautrain in preparation of the 2010 Soccer World Cup. Afterwards, the construction sector contributed positively to the South African economy through the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) from private sector investment, which saw the construction of wind energy and solar photovoltaic (PV) projects to increase electricity supply availability in the country (Eberhard and Naude 2016: 2).

PWC (2013: 6) discovered that between 2012 and 2013, construction sector development in SA was achieved through public sector spending, which resulted in positive economic growth. Qifa (2013: 1297) found a considerable dependency between UK construction sector development and the country's national economy.

PWC (2013: 8) states the government is a major contributor to spending capital in the construction sector through SOEs such as SANRAL, Eskom and Transnet. Hence, the Eastern Cape Socio-Economic Review and Outlook (2015: 83) indicates that private investment is planning to spend R120 billion to fund IPP projects, placing this funding amongst the top 10 largest privately funded renewable energy programmes in the world. In addition, the report states the Eastern Cape province has secured investment of R21 billion for renewable energy construction projects, which amount to 17.5 percent of R120 billion of the

total investment for the country (Eastern Cape Socio-Economic Review and Outlook 2015: 107).

The South African government, furthermore, plans to inject R2.6 billion in the Eastern Cape province towards the construction of two new 400kV transmission lines and six 132kV transmission lines, as part of the larger programme by Eskom (Eastern Cape Socio-Economic Review and Outlook 2015: 105).

Based on the above, it would appear both public and private sectors are primary indicators of the construction sector's performance in SA and the Eastern Cape province. Therefore, construction SMEs must be aligned through eliminating challenges they are facing to participate in these interventions. Thus, this study is aimed at addressing factors influencing the construction SME contribution to the economy.

2.13 CONCLUSION

This chapter provided relevant literature on the study background, overview on challenges facing the SME sector, definition of SMEs, and the current state of SMEs in Eastern Cape, as well as the contribution of SMEs to the South African economy, global challenges faced by construction SMEs, and challenges faced by construction SMEs in SA. The objective of this chapter was to review literature on the contribution of construction SMEs and investigate challenges facing these SMEs in SA.

It was discovered that in both developed and developing countries, construction SMEs can be utilised as a catalyst for economic growth and development, when their performance is properly managed (Mafundu and Mafini 2019: 2). Hence, the strategic benefits for nations to support and promote construction SMEs to enhance their contribution has been clearly outlined and discussed. The need for construction SMEs to continue to play a significant role, to create sustainable business environment, has been clearly defined.

The chapter further analysed different theories, including innovation and growth of the firm theory, followed by entrepreneurship and stewardship theory. Current government interventions for the support of the SME sector in SA were also reflected on. Lastly, this chapter explored forms of business for construction

SMEs, categories of construction and government's strategic support for construction SMEs in the Eastern Cape province.

The following chapter will examine the literature on internal and external environmental factors influencing construction SMEs. The aim is to provide an overview on factors influencing construction SMEs in SA, as well as identifying construction SME characteristics that affect construction SME performance.

CHAPTER THREE: ENVIRONMENTAL FACTORS (EXTERNAL AND INTERNAL) INFLUENCING EASTERN CAPE CONSTRUCTION SMEs IN SOUTH AFRICA

3.1 INTRODUCTION

The previous chapter reviewed literature on the challenges facing the SME sector, both locally and globally. This chapter intends to discuss the environmental factors influencing construction SMEs. These environmental factors are divided into internal and external factors. Internal factors influencing construction SMEs that are discussed in this study include lack of technical skills, lack of business management skills, skills shortage, and a lack of proper entrepreneurial skills, as well as the lack of marketing skills, lack of business networking, lack of education and training, and lack of leadership. While the external factors discussed in this study include insufficient access to finance, delay in payment, political, and economic factors, along with social, technology and legal factors.

While these SMEs are important to economic growth through job creation and poverty alleviation (Msomi and Olarewaju 2021a: 103), it is vital to acknowledge that they operate in an environment. Ngibe (2020: 63) argues the environment in which businesses function is an important factor with a huge influence on construction SME operations. This supports Khan, Çera and Nétek (2019: 112), who posit business activities are fully reliant on the business environment that defines the conditions under which construction SMEs operate.

It is important to note that environment and business environment are used interchangeably, with Eruemegbe (2015: 479) confirming this. According to Jaya, Nasir and Dewi (2021: 39), the environment comprises all factors that exist outside of the business but, at the same time, are closely related to the business. This adds to findings by Bushe (2019: 17) that environmental factors are matters the construction SME has limited control over and need to be considered as part of its strategic planning. In addition, Jaya *et al.* (2021: 39) state the environment comprises all factors that are closely related to but exist outside the company.

Cepel (2019: 66) asserts the business environment is, furthermore, used to indicate anything that surrounds the business and directly affects company

decisions, strategies, processes, and its performance. There is consensus amongst authors that business environmental factors construction SMEs face include political, legal, technological, and social, as well as economic aspects (Anderson 2017: 5; Cepel 2019: 66; Indris and Primiana 2015: 189; Eruemegbe 2015: 479). In addition, Anderson (2017: 5) maintains these business environmental factors are beyond the construction SMEs' control. Therefore, the business environment is very important for the survival and sustainability of construction SMEs.

The business environment consists of two sub-environments; the internal environment (also called the micro-environment), and the external environment, which is made up of the market environment and the macro-environment (Tien, Anh and Ngoc 2021: 30). In support, Farooq (2020: para. 1 line 1) states there are several internal and external factors that, both positively and negatively, affect every business, referred to as the business environment. However, Mafundu and Mafini (2019: 1) are of the view these factors are only bottlenecks or restrictions to the attainment of specific objectives and goals for construction SMEs. In addition, Tayeh *et al.* (2019: 52) claim the effect of internal and external factors does not only concern business owners and investors but rather, it affects the socio-economic development process in general.

Aigbavboa and Thwala (2014: 774) contend construction SMEs have unique factors compared to SMEs in other sectors and these greatly hinder their effective cash flow, growth, and development, with this view supported by Bikitsha and Amoah (2022: 2028). In addition, these factors greatly affect construction industry performance, in particular construction SMEs in SA (Adeyemi and Aigbavboa 2018: 1566). Ali (2021: 22) indicates an improvement of construction SME performance through eliminating these factors will have a great impact on the sustainable growth of the country.

The internal environment includes situational factors within the business control, whereas external environment consists of those things outside its control (Eruemegbe 2015: 482). According to Farooq (2020: para. 10 line 1), internal factors include the work culture, level of machinery used, and management process, where external factors can range from individuals, government

regulations, and environmental concerns to other organisations and businesses. In SA, internal and external factors have resulted in construction SMEs delivering poor project performance and poor quality of work in construction project execution (Adeyemi and Aigbavboa 2018: 1566).

It is, therefore, critical for construction SMEs to have adequate knowledge of both internal and external environmental factors, as this will help their businesses to thrive (Sherman 2019: para. 1 line 3). In addition, construction SME owners or managers must interact with and respond to these factors, whether internal or external to their organisation's control (Aigbavboa and Thwala 2014: 774). Furthermore, environmental factors that are basic constraints to a business should be systematically addressed (Eruemegbe 2015: 479).

As identified by Yüksel (2012: 53), the PESTEL (Political, Economic, Socio-cultural, Technological, Environment and Legal) analysis is used to examine environmental factors influencing the contribution of construction SMEs to economic growth. With the view to address these factors, Dithebe *et al.* (2018:1191) suggest the CIDB should play a critical role by empowering small and emerging construction businesses in providing skills and training initiatives, mentorship programmes, as well as technical assistance, because this will positively influence the performance of these entities.

According to Shah, Gundu and Abhikjain (2017: 8), internal and external factors are impediments to construction SME growth. For example, the research by Wang, using enterprise survey data from the World Bank on 119 developing countries, identified the main factors that constrain SME growth are access to finance, high tax rate, competition, and electricity, as well as political factors, particularly in Africa (Wang 2016: 174). Moreover, the study proved that lack of funding is the biggest obstacle to construction SME growth. To prove this, research on SME constraints in Nigeria (Mambula 2002: 63) discovered that lack of finance, poor infrastructure, difficulty in acquiring machinery and spare parts, and sourcing raw materials, are main factors that hindered business growth (Taiwo and Falohun 2016: 39).

Research conducted by Louis and Macamo (2011: 44) on SME businesses in Maputo, Mozambique, discovered financial, legal, social, and external and internal

barriers are key constraints to SME growth. Furthermore, Refiloe *et al.* (2020:136) revealed that access to finance, high interest rates, and income tax affect SMEs in SA more than in Lesotho. Therefore, internal and external challenges that affect SME businesses, particularly construction SMEs in SA, need to be studied thoroughly and their challenges fully addressed. This will enable sustainable business growth (Refiloe *et al*. 2020: 136).

The following section discusses the internal factors that influence construction SMEs.

3.2 INTERNAL FACTORS INFLUENCING CONSTRUCTION SMES

Internal factors can be described as the resources, behaviour, strengths, and weaknesses, as well as the synergy and distinctive completeness within or internal to the construction SME (Eruemegbe 2015: 482). Aigbavboa and Thwala (2014: 772) argue these internal factors hinder SMEs, including construction SMEs, from achieving entrepreneurial growth across the world, and in SA. Nonetheless, Mafundu and Mafini (2019: 3) point out these internal factors inhibit companies from achieving their business goals and objectives. Rizal and Kholid (2017: 50) state that since the internal environment encompasses different aspects within the business, a thorough analysis of the internal environment by construction SMEs should consider the strengths engaged in corporate strategy.

Many studies have focused on internal factors; however, the emphasis has been on large firms in the construction industry (Rahman *et al.* 2020; Adeyemi and Aigbavboa 2018; Dithebe *et al.* 2018). Hence, there is a gap in research on internal factors affecting construction SMEs. This study intends to examine the internal environment of SMEs in the construction industry to identify critical factors affecting construction SMEs. It is critical for the construction SMEs to focus on strengths and weaknesses, potential and existing opportunities and, thereafter, respond swiftly to identify competitive advantage over rivals (Eruemegbe 2015: 479). The internal factors influencing construction SMEs are discussed below, namely, lack of technical skills, lack of business management skills, skills shortage lack of proper entrepreneurial skills, lack of marketing skills, lack of business networking, lack of education and training, and lack of leadership.

3.2.1 Lack of technical skills

Based on the above discussion, internal constraints faced by construction SMEs require close and proper analysis. Oyelana and Fiseha (2014: 677) argue although construction SMEs are critical to the contribution of GDP, it is evident most of these SMEs lack technical skills. To support this viewpoint, Sogaxa *et al.* (2021: 119) and Aigbavboa *et al.* (2018: 102) highlight the lack of technical skills is one of the key constraints affecting construction SME growth and operational requirements. For example, in Scotland, Lawani *et al.* (2022: 1) state that 66 percent of construction SMEs reported a major concern regarding the shortage of bricklayers in the house building sector, which impacts the development of new houses. The authors further highlight that the impact COVID-19 is likely to aggravate the shortage of bricklayers in Scotland (Lawani *et al*. 2022: 2).

Windapo and Cattell (2013: 67) indicate although many skills are supplied to the construction market, in most cases, these skills are not aligned with construction sector needs, which results in a skills gap and in a decrease in professionalism within the sector. Offei, Kissi and Nani (2019: 60) suggest the skills gap is due to construction SMEs recruiting employees who do not have technical skills. Hence, Ametepey, Jnr and Cobbina (2022: 40) state the barrier to growth for construction SMEs is linked to insufficient project management skills and lack of financial management skills.

This supports research conducted by Aigbavboa and Thwala (2014: 771) on challenges facing black-owned construction SMEs in SA, which identified lack of skilled professionals as an internal factor affecting these businesses. Similarly, Nyakala (2022: 8) studied road initiative projects in SA, and discovered lack of technical skills by SME contractors, particularly contractual skills, leads to poor quality and loss of profits. The study by Offei *et al*. (2019: 49) on factors affecting capacity of construction SMEs in Ghana revealed the lack of technical skills as one of the factors that constrain these firms.

Nyakala (2022: 2) associates the lack of technical skills with inadequate training by construction SMEs. Hence, as a remedial action to address the lack of technical skills, Aigbavboa and Thwala (2014: 777) recommend construction SMEs should invest more in training of their managerial staff. This agrees with Papulová and

Mokroš (2007: 7), who suggest since technical skills are critical for construction SME growth and sustainability to cultivate an innovative culture. Therefore, this study seeks to test if this hypothesis is correct in the context of the construction SMEs in the Eastern Cape. Further to this, construction SMEs should utilise services of better qualified staff and employ construction mentors who can close the gap of technical and managerial skills (Aigbavboa and Thwala 2014: 777).

Lawani *et al*. (2022: 16) advocate that governments should collaborate with technical schools and recruit young school leavers to be equipped in different trades. This intervention will close the technical skills gap. This study seeks to investigate whether there is a lack of technical skills in construction SMEs and the level thereof. The next section will discuss lack of business management skills as an internal constraint to construction SMEs.

3.2.2 Lack of business management skills

Manjula and Sindhura (2021: 2109) maintain business management is a streamlined process that involves planning, organising, setting of human resources, and directing, as well as controlling the business. The authors aver business management can offer construction SMEs certain tools for strategic planning and policy development (Manjula and Sindhura 2021: 2109). According to Asante, Kissi and Badu (2018: 366), management is the key driver for the smooth running and development of construction SMEs. The authors further state that crises occur when an entrepreneur (usually a founder or owner) of a fully developed enterprise lacks the needed knowledge and managerial skills to run the business (Asante *et al.* 2018: 366). This supports Thwala and Phaladi (2009: 536), who highlight one of the major causes of business failure of small and medium construction firms include the non-existence of effective management during the initial stages of the business, which result in poor record keeping. Therefore, this study seeks to test if this hypothesis is correct in the context of the construction SMEs in the Eastern Cape. Lekhanya (2015: 412) states management incompetence is one of the key contributing factors to the failure of SMEs. Furthermore, Windapo *et al.* (2020: 424) maintain that many business owners and managers of construction SMEs do not appreciate the need to improve their management skills, partly because of the high costs associated with training and advisory services but, mostly, because many entrepreneurs are content with their

existing skills. In addition, Eke *et al.* (2015: 1056) believe lack of skills to manage cash flow is an impediment to construction SME growth, which often leads to business failure.

Fatoki and Garwe (2010: 732) argue managerial skills are of critical importance for the survival and growth of a new construction SME. Hence, Nqala (2019: 2) discover that in SA, managerial experience is a key factor in the success of construction SMEs and without managerial experience, these SMEs fail. Based on the above discussion, lack of business management skills is the great challenge faced by construction SMEs, with these firms not seeing the need to improve their business management skills. A study by Olarewaju and Msomi (2021a: 119) examined accounting skills and SME sustainability in SA and discovered SME owners lack financial skills, including bookkeeping. Therefore, important intervention must be taken to change the mindset of the construction SMEs to see the need to improve their financial and accounting skills.

Consequently, there is consensus amongst authors that, over the years, the management of construction SMEs has deteriorated drastically (Lekan *et al.* 2021: 19; Wentzel *et al.* 2016: 1480; Eke *et al.* 2015: 1058; Thwala and Phaladi 2009: 536). According to Wentzel *et al*. (2016: 1480), this emanates from the lack of business management training and skills, as well as limited family business culture in SA.

While Muriithi (2017: 40) identify lack of government support for construction SMEs as a major contributing factor to lack of business management. In the same vein, Pim-Wusu, Aigbavboa and Thwala (2023: 101) find a lack of government support is a barrier for construction SMEs to achieve adaptive capacity. In most cases, new entrepreneurs lack basic business management, which hinders the growth of small construction firms. For example, during the start-up of their business, owners are unable to separate their business and family situations, resulting in business funds being used to pay for private expenses, instead of limiting it to business expenses only (Anzagira, Owusu-Manu and Badu 2021: 151; Thwala and Phaladi 2009: 536).

In some cases, business owners of small construction firms also employ unqualified family members and this, sometimes, leads to rapid business closure

(Arifi 2018: 190). Eke *et al.* (2015: 1058) agree non-effective financial management during the start-up stages of the business is a major cause of construction SME failure. Furthermore, Mafundu and Mafini (2019: 7) contend that particularly in black-owned, construction sector SMEs, there is an evident lack of practical business management, which is a significant impediment for business performance. Shah *et al.* (2017: 7) indicate a critical challenge resulting in construction SMEs remaining stagnant is the reluctance or lack of owners or managers to diversify control over company functions to professional managers.

Tangible and practical measures such as government support should be put in place to transform business management in the construction SME sector, if performance is to be optimised (Mafundu and Mafini 2019: 7; Mutti and Hughes 2002: 31). According to Thwala and Phaladi (2009: 538), construction SME owners need to know and understand what the existing skills are that are needed and must attend refresher courses on business management skills. In support, Olarewaju and Msomi (2021a: 119) state that more training and awareness is required by construction SME owners, including accounting skills, which will assist businesses to keep records of business transactions crucial for banks when financial assistance is required. Thus, it is evident that lack of business management skills can be a barrier to the success of a construction SME (Shah *et al*. 2017: 7). The next section will discuss the impact of the skills shortage within construction SMEs.

3.2.3 Skills shortage affects construction SMEs

Hayes (2022: 1) defines skilled labour as a segment of workers that have specialised knowledge, training and experience to execute more complex physical, or mental tasks than routine job functions. The common practise is that skilled labour is characterised by higher education, as well as expertise levels attained through training and experience (Hayes 2022: 1). Langeni (2020: 4) points out, although the South African government is addressing the issue of skills shortage through interventions such as equity legislation, the skill shortage remains a reality in the country. Aigbavboa and Thwala (2014: 772) concur and aver the unemployment rate has currently increased tremendously in SA, owing to the shortage of skilled labour, which remains prominent in the country.

The South African construction sector is not immune to the challenge of skills shortages, since one of the major constraints is the lack of competent skilled labour for many construction SMEs (Aigbavboa and Thwala 2014: 777). Furthermore, Silva, Warnakulasuriya, and Arachchige (2018: 76) are of the view that the low skills level among construction industry workers is one of the major challenges that results in poor contractor performance. Interestingly, there is much need for skilled labour in SA, yet there are too many unemployed individuals who do not possess sufficient skills to fill these vacancies (Reddy 2016: 468).

Dithebe *et al.* (2018: 1190) confirmed the deficiency of key critical skills is one the factors influencing construction sector performance in SA. A study by the UK Construction Industry Training Board discovered that 43 percent of construction businesses did not take on projects due to the lack of a skilled workforce, with 50 percent of these businesses struggling to recruit workers (Lawani *et al*. 2022: 1). While in Scotland, construction businesses in the building sector are experiencing a shortage of bricklayers, which impedes the building of new houses (Lawani *et al*. 2022: 2). Therefore, skills deficiency is a global challenge experienced by construction firms.

According to Silva *et al*. (2018: 79) and Rasool and Botha (2011: 1), the major problem associated with a skills shortage is that it affects the productivity level. Akomah, Ahinaquah and Mustapha (2020: 84) concur that a skills shortage impacts productivity performance, as it is difficult to fill vacancies. A further impact is that a skills shortage forces firms to lower their recruitment standards and fill positions with less productive workers, resulting in low productivity performance (Mcguinness 2009: 23).

To address the issue regarding a shortage of skills in construction SMEs, Dithebe *et al.* (2018: 1191) suggest the South African regulatory body, namely the CIDB, should ensure developed construction firms perform skills and training transfer to construction SMEs. This supports the view of Oshodi and Aigbavboa (2018: 163) that a skills shortage, particularly of engineers, could be one of the factors that affect construction SME performance. Thus, this study seeks to investigate whether a shortage of skills affects the construction SME contribution to economic growth in the Eastern Cape. The next section will discuss lack of proper

entrepreneurial skills as a factor in the contribution of construction SMEs to economic growth.

3.2.4 Lack of proper entrepreneurial skills

Opute, Irene, Jawad and Agupusi (2024: 24) and Nieuwenhuizen (2013: 3) identifies an entrepreneur as a person who recognises the needs of the customer as an opportunity to create a business, to produce goods and services to satisfy a profitable need. According to Vasilska (2020: 18), the training of entrepreneurs on critical skills is a major contributor to the success of construction SMEs. In support Nana, van Staden and Coetzee (2021: 1) state the shortage of local entrepreneurship is a limitation in SA. In addition, Wentzel *et al. (*2016: 1480) contend there is a need for entrepreneurship development by sharpening the expertise of construction SME owners. Opute, Kalu, Adeola and Iwu (2021: 217) points out that entrepreneurship has played a critical role in steering sustainable growth in many countres. Furthermore, Nana *et al*. (2021: 1) are of the view lack of entrepreneurship can be resolved through education and training on operating a business.

Ladzani and Van Vuuren (2002: 155), therefore, suggest construction SMEs who see a need to develop entrepreneurship by education, assume lack of training for entrepreneurs is the key reason for SME failure. This view is supported by Iwu and Opute (2019: 1440), who state lack of entrepreneurship leads to insufficient capital and results in business failure. Moreover, research shows entrepreneurs develop skills and knowledge through education and training, which enable SMEs to grow and expand (Baah-Mintah *et al.* 2018: 143).

The failure of construction SMEs, as Wentzel *et al.* (2016: 1483) explain, has been accelerated by the lack of entrepreneurial skills, evident from their: inability to set strategic goals; inability to plan forward actions; reluctance to seek advice; lack of management commitment, and unwillingness to adapt to change. Therefore, lack of entrepreneurial skills is a threat to the construction SME contribution to economic growth (Baah-Mintah *et al.* 2018: 143). Thus, to enable the contribution of construction SMEs by maximising business profits, construction SME owners must adopt entrepreneurial skills. This study seeks to investigate whether a lack of entrepreneurship by construction SME owners or managers influences the

construction SME contribution to economic growth in the Eastern Cape. The lack of marketing skills will be discussed in the next section.

3.2.5 Lack of marketing skills

Yankah, Aigbavboa and Thwala (2018: 281) define marketing in construction management as the combination of all activities undertaken in order to obtain future work. The authors further highlight marketing is a critical task for construction SMEs and many researchers view marketing as part of strategic management (Yankah *et al*. 2018: 281). Furthermore, marketing is defined by Sithole, Sithole and Chirimuta (2018: 3) as a process that enables businesses to create value for their customers and to build strong, unbreakable ties with those customers. In addition, the authors maintain marketing does not only assist businesses to survive but enables them to create market share and profits through the attraction of new and retainment of existing customers (Sithole *et al*. 2018: 3). Van Scheers (2018a: 33) agree marketing has the potential to predict whether the construction SME will survive in the long-term.

Marketing research, according to Nyathi (2022: 27), has always been mostly focused on large firms, with very little on SMEs. This adds to van Scheers (2018a: 28), who believes construction SMEs lack marketing knowledge, and they therefore make uninformed decisions when faced with business challenges that require marketing skills. Ngibe (2020: 74) agrees SME businesses fail due to a lack of effective key marketing strategies, which include place, price, product, and promotion. This supports Lekhanya (2015a: 416), who discovered marketing skills is one of the key internal factors affecting construction SME business performance.

Van Scheers (2018a: 33) established that since construction SME owners or managers face many factors affecting their businesses, the value of marketing tends to be overshadowed by these factors, resulting in the lack of marketing skills for SME business owners or managers. Lack of interest in marketing by SMEs is attributed to budgetary constraints (Nyathi 2022: 27). However, Lekhanya (2013: 4) advocates for business owners or managers to use social, particularly Facebook and twitter to market their businesses, since social media is growing rapidly in the South African business and social sectors. A study conducted by

Malesev and Cherry (2021: 77) examined the impact of digital and social media as key marketing strategies and discovered that should SMEs correctly adopt and implement these strategies; it will result in an effective and cost-efficient means to gain a competitive edge in the market. However, Rugova and Prenaj (2016: 86) argue the use of social media as a low-cost marketing strategy for construction SMEs has not been explored, particularly developing countries.

In Nigeria, the study by Oyewobi *et al.* (2022; 19) found the use of social media by construction SMEs had a significant influence on the performance of these businesses as it builds business networks. Therefore, this study seeks to test if this hypothesis is correct in the context of the construction SMEs in the Eastern Cape. For construction SMEs to take advantage of social media, Malesev and Cherry (2021: 78) recommend owners must go through formal training and development in marketing management and integrated marketing communications, with more focus on social media skills and strategies. Hence, the study intends to investigate the use of social medial as a marketing strategy by construction SMEs to attain a competitive edge.

3.2.6 Lack of business networking

Mole, North and Baldock (2017: 477) claim encouragement and support from business associates or advisers are crucial to improve SME performance and competitiveness. Öberga (2018: 125) describe a business network comprises the weight and social ties between individuals for the purpose of business exchange. While Hikmah, Ratnawati and Darmanto (2021: 456) are of the view business networks are key in bringing competitive advantage in a business, the perception is that business networks are a starting point for new and fresh ideas (Öberga 2018: 125). This supports Hallen and Johanson (2004: 158), who identify business networks as an integration of relationships between a business firm and an individual; with the intention to benefit all parties involved. Hence, Ritter, Wilkinson and Johnston (2004: 175) state businesses should not operate in isolation but in an integrated business system.

Hallen and Johanson (2004: 159) agree and stress that a company does not exist in a vacuum; it requires resources produced by other companies to survive. Furthermore, Ritter *et. al* (2004: 175) contend a relationship is the most valuable

resource that the company must seek to protect at all costs. Therefore, it is of critical importance for construction SMEs to ensure business relationships and networks are maintained and managed properly (Ritter *et al.* 2004: 175). Based on the above, construction SMEs need to adopt business networks.

Cisi and Sansalvadore (2019: 2) find collaborations within SMEs, through business networking, has generated valuable benefits such as increased production quantities and new market entry. However, it remains a challenge for construction SMEs to maximise the benefits of using business networks, which (Michna, Kmieciak and Czerwinska-Lubszczyk 2020: 221) attribute to a lack of trust and fear of being dominated by big companies from the industry. The authors highlight the connection between business networking and construction SME performance in the construction sector has not been sufficiently investigated, leaving a gap (Michna *et al.* 2020). Hence, this study seeks to close this gap.

Through business networks, construction SMEs can attain a strategic opportunity to grow their potential for innovation, achieve synergies, reduce costs, and enter new markets, as well as expand new segments, and acquire critical skills for interacting with other firms (Cisi and Sansalvadore 2019: 2). Therefore, since business networks are key for the development of construction SMEs, this study intends to explore the use of business networking for marketing purposes by construction SMEs.

3.2.7 Lack of education and training

Isaacs *et al.* (2007: 613) assert that in SA, the main determinant to establish a successful culture of entrepreneurship is education, which is achieved though stakeholder support from government, educators, and learners themselves. According to Lobler (2006, cited in Ngibe 2020: 44), the word “education” was established from the Latin word “*exducere*” which refers “to lead out”. Human capital theory advocates that education and training is an investment in human capital, which results in improved employee productivity and efficiency, thus enabling the firm to contribute to economic growth (Rosman *et al.* 2018: 774).

Ngibe (2020: 44) highlights that education has, furthermore, been acknowledged as empowering managers or leaders to increase business competitiveness, productivity, and the possibility of achieving growth. The author further states

education has the power to greatly improve the entrepreneurial space of construction SMEs. Nevertheless, the lack of financial resources for SMEs has been linked to the lack of education and managerial skills of SME owners/managers (Karadag 2016: 4). In the UK, the term education generally refers to the individual's empowerment through personal development, mindset, skills, and abilities (Lackeurs 2015: 7).

Anderson (2017: 5) maintains education on entrepreneurship for construction SME owners and/or managers has a substantial value for SME start-up and growth and is directly linked with social networks. Furthermore, Cassim, Soni and Karodia (2014: 36) found almost all policy analysts acknowledged appropriate education is rated as a key policy instrument empowering entrepreneurship. Moreover, education is also one of the key factors that offers the entrepreneur confidence to start a business (Anderson 2017: 5). Consequently, education and training do not only serve to boost entrepreneur confidence but can also be used as a powerful tool for attracting employees to a construction SME (Dawe and Nuyen 2007: 22). In addition, Liptáková (2016: 1) states appropriate, quality education increases the opportunity for graduates to be employed in the market, while Lekan *et al*. (2021: 19) attribute the success of construction SMEs to suitable training.

Isaacs *et al*. (2007: 616) contend that education and training enable the creation of new business ventures, ensure businesses are profitable, and grow for sustainability. In addition, the authors suggest education and training need to be localised through researching the local environment and circumstances, as this will foster appropriate development of the construction SME, resulting in job creation (Isaacs *et al*. 2007: 616). Tomy and Pardede (2018: 11) agree education and training are the result of accumulated human resources that enable the construction SME owner to contribute positively to firm performance. Nevertheless, Bomani, Fields, and Derera (2019: 3) point out that through education, SMEs gain technological knowledge and skills that advance production levels and improve quality products.

The importance of training and education is globally acclaimed for its key role in construction firms performing better through greater collaboration amongst professions (Nadim and Goulding 2007: 240). Dawe and Nuyen (2007: 22)

maintain training can be done by means of vocational education and training (VET) system that can include the use of apprentice and traineeships, including other forms of nationally recognised (accredited) training. Furthermore, Anderson (2017: 22) concluded education and training is a measure for combining knowledge and experience, which is key for construction SME start-up and a great determinant for business success, varying from entrepreneurship knowledge to managerial soft skills.

According to Isaacs *et al*. (2007: 614), entrepreneurship education is the systematic and intentional intervention by an educator in the life of a student, to teach key entrepreneurship qualities and skills that will enable the student to survive in the business sphere. Putro *et al.* (2022: 1670) state entrepreneurship education, furthermore, equips students with an entrepreneurial part as a critical aspect of their competencies. Entrepreneurship education is, additionally, also perceived as a recipe for innovative talents, which are acknowledged as a driver for future development of a construction SME (Wei, Liu and Sha 2019: 1). Moreover, Wei *et al.* (2019: 1) maintain entrepreneurship education enables student entrepreneurs to gather critical information, knowledge, and other resources they need, thereby forming a string atmosphere for innovation and entrepreneurship. Therefore, this study seeks to test if this hypothesis is correct in the context of the construction SMEs in the Eastern Cape.

Karadag (2016: 12) determined the value of strategic importance of educational levels, which equip construction SME owners/managers with critical managerial skills, resulting in increased construction SME performance. In addition, Subhan, Mehmood and Sattar (2013: 16) found education has a recognisable role in SME performance, resulting in their contribution to the economic growth and development. In the context of adaptive capacity in Ghana, the study by Pim-Wusu *et al*. (2023: 101) discovered education and training played a crucial role in the implementation of adaptive capacity by construction SMEs.

Conversely, Douglas *et al.* (2017: 231) established a high level of education is not the most important factor contributing to construction SME performance and success. This confirms findings by Ogubazghi and Muturi (2014: 642) agree that the education level of SME owners or managers does not have a significant effect

on the probability of construction SMEs accessing bank loans. These authors do not see value in education as a catalyst to assist construction SMEs to achieve success. Therefore, there is no consensus in the literature on the influence of the entrepreneurship education level on construction SME performance. Thus, this study seeks to establish whether education and training have an influence on the contribution of construction SMEs to the economy.

3.2.8 Lack of leadership in construction SMEs

Madanchian and Taherdoost (2017: 240) maintain leaders are important in every business and play a crucial role that enables the organisation to attain high performance and achieve a competitive edge in the market. Yet, the leadership concept is one of the terms organisations have paid less attention to (Giritli and Oraz 2004: 253). Mngeni (2015: 1) defines leadership as one's ability to encourage and motivate followers to achieve a vision or set of goals. Moreover, Harms and Creda (2010: 6) define leadership as a systematic process that enables an individual to convince a group of individuals to work towards achieving a common goal. Furthermore, Kocherbaeva, Samaibekova, and Isabaeva (2019: 89) indicate the good qualities of a leader are to develop a defined vision, set clear goals and avoid distraction. In addition, the authors affirm leaders must perform continuous monitoring, as well as provide and receive feedback on implementation of the vision (Samaibekova, and Isabaeva 2019: 89).

In the context of construction SMEs, Archer, Verster and Zulch (2010: 431) define leadership as a trait developed by the individual who has a clear understanding for the construction SME requirements to develop, direct, control, and motivate, while also communicating the vison pertaining to sharing, mentoring, and coaching subordinates and integrated construction decisions.

Soomro *et al.* (2019: 3) point out leadership is the only tool that enables business owners to not follow the traditional hierarchal chain of understanding and control but, instead, utilise critical business skills to manage the business. In addition, Giritli and Oraz (2004: 253) aver there are generally two types of leadership styles that can be explored by construction SME owners. These include the democratic or participative leadership style, which is an employee-centred type; and the autocratic and authoritarian leadership style, which is task-centred. The authors

discovered four core types of management style, namely, exploitative-authoritative, benevolent-authoritative, consultative and participative. Nevertheless, the most critical style leaders should adopt, is participative (democratic) (Giritli and Oraz 2004: 254).

There is consensus among researchers of leadership effectiveness and efficiency being an important factor, with a direct influence on the performance of any organisation (Mngeni 2015: 1; Madanchian and Taherdoost 2017: 240). Mwangi *et al.* (2013:8) argue there are shared findings that organisation leadership is linked with the attainment of positive business results. Furthermore, Madanchian and Taherdoost (2017: 240) highlight there is sufficient evidence that SME performance is linked to the leadership style of the leader.

Mwangi *et al*. (2013: 8) state good leaders must have specific leadership traits, which include self-motivation, leadership motivation, honesty and integrity, as well as self-assurance. These leadership traits result in the positive efficacy of follower performance which, in turn, produces better organisational performance (Madanchian and Taherdoost 2017: 240). Moreover, construction SME owners must ensure their activities are aimed at helping them and their businesses to enhance their expertise, knowledge, and experience (Kocherbaeva *et al*. 2019: 92). Good leadership, according to Madanchian and Taherdoost (2017: 241), has been identified as one of the key factors required for the success of construction SMEs. The authors further attribute the failure of construction SMEs to poor leadership skills. Sogaxa *et al.* (2021: 121) concur that previous SME failures are primarily caused by lack of leadership and unsuitable leadership capabilities in the SME sector.

This makes it imperative for construction SMEs owners and/or managers to develop their leadership skills, in order to guard against poor organisational performance (Madanchian and Taherdoost 2017: 241). To achieve this, the development of leadership skills of employees with the ability to fill an influential position in the business or organisation, is of critical importance (Kocherbaeva, *et al*. 2019: 89). Furthermore, Giritli and Oraz (2004: 253) contend there are different views on the leadership style that should be adopted by leaders in the construction industry.

Naum (2001: 219) states for complex projects, where decisions require different styles of leadership, a participative style of leadership is more suitable than other styles. This is contrary to Nicholas (1990), who is of the view the directive style is more suitable, particularly when there is mounting pressure for a project to be completed (Giritli and Oraz 2004: 253). While there is enough literature on organisational leadership for SMEs and the construction sector, there is limited literature on organisational leadership in construction SMEs. Hence, this study seeks to investigate the influence of leadership in construction SMEs. The next section will discuss lack of entrepreneurial leadership.

3.2.8.1 Lack of entrepreneurial leadership

Mwangi *et al.* (2013: 15) are of the view entrepreneurial leadership, particularly for the SME sector, has received little attention from researchers. The authors believe entrepreneurial leadership in this sector should receive as much attention as other sectors, since it is volatile and vulnerable by its nature (Mwangi *et al.* 2013: 15). Nevertheless, Soomro *et al*. (2019: 3) argue leaders of SMEs, including construction SMEs, need to adopt modern leadership styles unlike old leadership styles, and this is referred to as entrepreneurial leadership.

Gupta, MacMillan and Surie (2004: 242) maintain entrepreneurial leadership is, furthermore, a forerunner of leadership that “generates visionary scenarios utilised to formulate and mobilise a support group of whoever becomes part of the vision of exploration and realisation of strategic value creation”. In addition, Soomro *et al*. (2019: 4) explain the art of entrepreneurial leadership lies in the ability of an entrepreneur to drive the performance of employees in a direction that will enable them to achieve organisational goals. Gupta *et al*. (2004: 244) concur entrepreneurial leadership is linked with transformational leadership, where a leader induces “the spirit of high-ranking performance through earnest assistance of supporters” (Mwangi *et al*. 2023: 8).

The greatest challenge for entrepreneurial leaders, is the skill to anticipate future possibility and to be able to align current business transactions with the future (Gupta *et al*. 2004: 244). The main personal characteristics of entrepreneurial leaders include proactiveness, innovativeness and risk taking (Soomro *et al*. 2019: 4). Furthermore, Kocherbaeva *et al*. (2019: 92) are of the view one characteristic

crucial for the entrepreneur, is intrinsic motivation that leads to SME growth. In addition, intrinsic motivation enables construction SME owners to control results and their actions in determining the goals to be achieved (Kocherbaeva *et al*. 2019: 92).

Soomro *et al*. (2019: 4) determined that strategic, motivational, personality and communicative factors are the central factors that may enhance entrepreneurial leadership in SMEs of Pakistan. However, their study did not include the benefits of entrepreneurial leadership. Further to this, it does not offer the perspective of the managers and founders in the SME construction sector. Mngeni (2015: 7) suggests poor SME performance in Tanzania is linked to the lack of entrepreneurial leadership. While this study shows a positive correlation between entrepreneurial leadership and business performance, there is limited conclusive evidence to support the direct cause and effect of this relationship. Hence, this study seeks to explore the cause and effect of this relationship. The next section will discuss external factors influencing construction SMEs.

3.3 EXTERNAL FACTORS INFLUENCING CONSTRUCTION SMEs

Kruger, Dickson and Meyer (2020: 4) and Ayandibu and Houghton (2017: 58) contend the external environment consists of all factors business has no control over, which include the economic environment, markets, infrastructure, and crime, as well as corruption, and labour. These greatly affect business performance and hinder growth for new SMEs (Lekhanya and Mason 2014: 332). In addition, Wentzel *et al.* (2016: 1480) state external factors facing construction SMEs include: the state of the economy, compliance with regulations, resource scarcity and crime, as well as corruption, and rapid change in technology. However, some of these external factors can be manipulated, while the firm can adjust to other external forces (Ayandibu and Houghton 2017: 59). Nevertheless, external factors faced by construction SMEs are not only a risk to business growth but also a risk to business sustainability (Kruger *et al.* 2020: 4). It is, therefore, of great importance to carefully study and analyse the external environment construction SMEs operate under, for these firms to be well informed of this external environment.

3.3.1 Lack of access to finance

Zhang *et al.* (2020: 1490) define financial constraints, also known as credit constraints, as funding restrictions due to the inability to raise finances outside the construction SME. External financing is more costly than internal financing. Zhang *et al*. (2020: 1492) state prior to the 2007/2008 global financial crisis, businesses were able to raise funds through bank loans and cash flows from daily business activities; mostly external financing that relied on relationships between firms and the banks. However, since the economic recession in late 2007, banks processes to lend money have become stricter and tighter, when compared to the lending period between 2001 and 2003, where access to credit was smooth and easy (Windapo and Cattell 2013: 67). Hence, the ongoing research on financial restrictions faced by SMEs shows access to finance as one of the limiting factors to business success (Msomi and Olarewaju 2021a: 106).

Asah and Louw (2021: 2) highlight, in developing countries such as SA, non-availability and lack of access to finance is the key constraint affecting SMEs. Selamat, laili Jabar and Kaliwon (2022: 592) echo the viewpoint that lack of financial back-up by construction SMEs affects their ability to expand and achieve growth. In support, Wentzel *et al.* (2016: 1478) confirm that the South African SME construction sector is facing certain challenges, which include lack of capital, because of their difficulty in accessing finance.

The second most described contributor to new SME creation and failure in SA is due to the lack of financial support (Ametepey, Jnr and Cobbina 2022: 41; Fatoki and Garwe 2010: 731; Oyelana and Fiseha 2014: 676). In support, Msomi and Olarewaju (2021a: 103) state the declining growth of small businesses and lack of success in SA, are linked to poor financing. Furthermore, FinMark Trust (2006, cited in Fatoki and Garwe 2010: 731) and Asah and Louw (2021: 2) discovered only 25 percent of SMEs in SA were approved by the banks for a loan, while 75 percent of SME applications for bank credit was rejected. Consequently, from this point of view, the growth of new SMEs, including construction SMEs, may not be possible and may limit their contribution to the economy (Fatoki and Garwe 2010: 732).

Oyelana and Fiseha (2014: 676) agree the majority construction SMEs are unable to increase their contribution to socio-economic development due to their lack of access to finance. Thwala and Phaladi (2009: 536) state that although the South African government has made interventions such as the introduction of government agencies, including SEDA, to increase accessibility to finance, there is a lack of efficiency in the promotional programmes used to conduct awareness by these agencies. A report conducted for the National Credit Regulator (NCR) on literature concerning SME access to credit and support in SA, discovered major constraints that hinder SMEs in all sectors of the economy. These include lack of business managerial skills, lack of information on available products, lack of financial literacy, poor business plans and external factors (NCR 2011: 10).

The success or failure of construction SMEs is argued by Msomi and Olarewaju (2021b: 282) to depend on financial sustainability. Kamau and Nguni (2014: 51) believe proper access to finance will improve the growth opportunity of construction SMEs. Thwala and Phaladi (2009: 537) revealed that in countries such as Swaziland, there were four major banks with a proper system in place to support SME construction companies once they are awarded construction work.

As a measure to address the lack of funding, Lekhanya (2015a: 416) recommends the South African government needs to formulate policies to provide construction SMEs with financial assistance, since it is difficult to obtain financing from the commercial banks. The author further recommends a financial scheme should be created where entrepreneurs can have at least equal, if not concessional, access to finance (Lekhanya 2015a: 416). Moreover, Msomi and Olarewaju (2021b: 282) advocate financial awareness is needed for construction SME owners or managers to help them manage financially and help with short- and long-term investment decisions.

Based on the above discussion, it can be deduced that lack of funding for construction SMEs can be a factor that could affect their performance. Hence, Asah and Louw (2021: 2) view finance as the lifeblood of all businesses. Therefore, this study intends to investigate whether lack of access to finance by construction SMEs is a constraint to their contribution to economic growth in the Eastern Cape.

3.3.1.1 Lack of government finance

The South African government acknowledges the significance of SMEs, so much so, a new MSBD was established in early 2014 with the sole purpose of facilitating the promotion and development of small businesses (SEDA 2016: 5). According to Ogujiuba *et al.* (2022: 2) and the NCR (2011: 27), the South African government has increased financial initiatives aimed at promoting and supporting SMEs. Consequently, the government has many different support and funding initiatives available for SMEs, where construction SMEs can access funding, for example, the SEDA, Khula Enterprise Finance and Ntsiki Enterprises Promotions Agency (Agwa-Ejon and Mbohwa 2015: 3). SEDA (2016: 6) states the Small Enterprise Finance Agency (SEFA) was combined with the South African Micro-Finance Apex Fund (SAMAF) and Khula Enterprise Finance Limited, to support SME businesses that need finance up to a limit of R3 million.

The primary purpose of SEFA is to offer bridging finance, revolving loans, term loans, asset finance and funding working capital needs for SMEs (SEDA 2016: 6). Furthermore, the South African government established a financing organisation known as the National Empowerment Fund (NEF), which finance businesses up to the value of R50 million (Sartorius and Botha 2008: 441). However, Wentzel *et al.* (2016: 1478) are of the view the lack of finance is an old challenge faced by construction SMEs in SA. In support, Balogun, Ansary and Agumba (2018: 474) state lack of finance in construction SMEs has resulted in the decrease of their productivity, performance, and contribution to economic growth. Based on the views expressed by the previous authors, it can be argued that despite the tangible intervention by the South African government in the empowerment and development of SMEs, by introducing different financing agencies, SMEs including construction SMEs have not benefited from these initiatives.

While there are several government agencies that support and fund SMEs, it is unclear whether construction SME owners are aware of these organisations (Cant, Erdis and Sephapo 2014: 577). In support, Agwa-Ejon and Mbohwa (2015: 3) claim 75 percent of SME owners are not cognisant of the organisations put in place by the South African government for support of these firms. Moreover, the accessibility to provincial offices, lack of informed accredited service providers, difficult administrative requirements, and poor knowledge transfer by consultants,

are constraints to simple access to finance for construction SMEs (NCR 2011: 32). Hence, it is agreed lack of access to government finance remains a common challenge for construction SMEs in SA (Asah *et al.* 2020: 2; SEDA 2016: 7; Wentzel *et al*. 2016: 1478). The reason government interventions have not been successful, is attributed to incompetent staff delivering support services (NCR 2011: 32).

Government financial support is an enabler of business sustainability for construction SMEs. According to Ogujiuba *et al.* (2022: 3), the government in Spain introduced financial assistance for SMEs, which resulted in improved productivity, enabling these firms to contribute to job creation in the country. Based on the above, it can be argued that South African government interventions towards SME financial support are not efficient and extra measures need to be put in place. Thus, this study is aimed at recommending strategies that will close this gap.

3.3.1.2 Lack of access to bank financing

Govori (2013: 701) states that, as part of growth, SMEs including construction SMEs come to a stage in their life cycle where they need new financing investment from banks or other sources to expand operations or implement innovation. According to the NCR (2011: 44), in OECD countries commercial banks are a reliable source of external finance for SMEs, as these banks view SMEs as an attractive line of business. In support, research conducted by the World Bank in 2007 discovered constraints in accessing finance in the South African private banking sector were extremely low, with a quick turnaround of 4.13 days, as opposed to the international average of 11.03 days (NCR 2011: 46).

Contrary to this, Govori (2013: 703) stated that in emerging countries such as SA, construction SMEs typically have challenges in obtaining loans from private banks, due to the high risk of not being able to service the loan and lack of surety required by banks. In support, Lekhanya and Mason (2014: 335) assert the availability of finance for SMEs from commercial banks and other private financial institutions is more limited than for large businesses. Furthermore, Eke *et al.* (2015: 1058) argue access to finance for construction SMEs from private institutions is restricted, since they lack surety and are perceived to be a high risk. Nonetheless, Msomi

and Olarewaju (2021a: 104) maintain access to private financial institutions by SMEs has deteriorated sharply, which limits the capacity of these firms. Thus, lack of private finance for construction SMEs may be one of the factors influencing their contribution to economic growth. Hence, this study seeks to explore the impact of lack of private finance on construction SMEs.

Govori (2013: 703) contends the reason for the lack of private financing is caused by weak banking institutions and inadequate policies pertaining to credit and collateral assessment. Another study by Asah *et al.* (2020: 7) discovered the lack of appetite by private financial institutions to provide credit to SMEs is due to these firms not having either collateral or audited financial statements, as well as the nature of their relationship with the bank. In addition, a report conducted by the Policy Board for Financial Services and Regulation (2019: 83) affirms the lack of appetite to fund construction SMEs by commercial banks is because of SMEs possibly having a credit-risk profile that is too high.

The credit-scoring models used by most commercial banks put a severe load on SMEs, restraining their access to funding (Cunha *et al.* 2020: 5). Msomi and Olarewaju (2021a: 104) argue the lack of finance from private entities is due to a lack of financial and accounting skills by construction SMEs. It is, therefore, important to investigate the influence of lack of private finance to the construction SMEs' contribution to economic growth. The next section deals with the impact delays in payment have on construction SMEs.

3.3.2 Delays in payment

Late payment of construction SMEs is a global challenge (Namaiwa 2022: 686). According to BACs Payment Schemes Limited research, almost half the UK's SMEs, which includes construction SMEs, suffer late payment with an average of 72 days (Pickup 2018: 1). According to Thwala and Mvubu (2009: 355), many construction companies have suffered financial constraints and bankruptcy because of late payments, which usually happen with government contracts. Furthermore, Hosken (2019: 1) states delays in payment of work done by government bodies are a huge challenge, which is crippling the construction industry, especially for emerging construction SMEs. A study by Kaya (2022: 24) on late payments to SMEs in Europe, revealed the reason SMEs suffer most,

when compared to large businesses, is because these small enterprises lack financial resources to alleviate the influence of late payments when it occurs.

Manyana (2019: 1) highlights that in SA, companies were forced to close their doors because of non-payment by state owned enterprises, which has resulted in the construction sector losing 142 000 jobs in the first quarter of 2019. Gqoboka, Anakpo, and Mishi (2022: 1397) and Salau and Nurudeen (2022: 194) find delayed payment make it difficult for SMEs to run their business operations, since they are unable to pay salaries and wages to staff, VAT and rental, among others. In addition, Salau and Nurudeen (2022: 192) state that delay in payments hinders the growth of SMEs. Therefore, payment delays can be regarded as a high risk to survival of the construction SMEs, which is a threat to the contribution of these firms to economic growth.

According to the Public Service Commission report, from the start of June 2022 to the end of September 2022, the number of SMEs' invoices unpaid by government department, increased from 959 to 2 454 (Chabalala 2022: 1). The report further notes that Eastern Cape, Gauteng and North West provinces were the main contributors to non-payment of SMEs, resulting in some of these firms closing down, while others are blacklisted, which makes it difficult to secure future financial assistance (Chabalala 2022: 1).

Thwala and Phaladi (2009: 537) agree several construction businesses have undergone financial ruin and insolvency/liquidation because of late payments, which is a common trend with government-financed contracts. For example, in Swaziland, research conducted in 2007 showed delays in payment as a reason for construction SME failure in that country (Thwala and Phaladi 2009: 537). Bikitsha and Amoah (2022: 2033) assessed challenges and risks influencing the operations of emerging contractors in SA and discovered delay in payments by government departments and private clients was a key challenge facing these firms. According to Namaiwa (2022: 690), delays in payment on completed work influence the completion of construction projects in Nigeria.

In addition, Ncwadi and Dangalaza (2005: 11) revealed poor cash flow and late payments were major challenges that affected construction SMEs in SA. Bolton *et al.* (2022: 4), Al Alawi (2021: 1350), Namaiwa (2022: 686) and Kaya (2022: 2)

assert delays in payment have a negative influence on the cashflow of SMEs and hamper their ability to pay their creditors, due to a lack of cash. The study by Al Alawi (2021: 1357) discovered a significant correlation between late payments and productivity of construction SMEs.

Late payment of completed works by construction SMEs is often due to government delays in implementing approved budgets (Namaiwa 2022: 686). Furthermore, one of the contributing factors of delay in payments is that small construction firms do not know how to prepare documents for timely payment, thus affecting their cash flow (Thwala and Mvubu 2009: 355). Moreover, Abe, Troilo and Batsaikhan (2015: 10) claim the contributing factor to delay in payments of SMEs lies in many SMEs that have a poor accounting system to monitor business finances. Mutti and Hughes (2002: 26) state cash flow challenges and a shortage of working capital can, in extreme situations, “push efficient and profitable firms into insolvency”. Therefore, there is a need to investigate whether construction SMEs in the Eastern Cape suffer payment delays, the cause of such delays, and the extent to which it affects construction SME contribution to economic growth.

3.3.3 Competition within South African construction SMEs

3.3.3.1 Local competitors

Competition is inevitable in the construction industry where, according to Windapo *et al.* (2020: 424), businesses ranging from construction SMEs to well-established large contractors must compete in the same market. This confirms the view by Goga *et al.* (2019: 822) that competition is very important, because it forces businesses to develop new products to achieve competitive advantage. Cromhout and Duffett (2022: 2) argue SMEs lack key marketing expertise and skills that result in failure of these firms.

Competitors use different schemes such as price competition to achieve a competitive edge in the market (Safari, Farhang and Rajabzadehyazdi 2016: 74). Amadasun and Mutezo (2022: 2) state that when SMEs adopt critical marketing tools, they are likely to intensify their competitive edge, thus, obtaining competitive growth and are enabled to contribute positively to the country’s economy and national economic development. As such, it can be assumed construction SMEs who employ marketing tools are more likely to experience sustainable growth.

Öney-Yazýcý and Acar (2006: 438) highlight these tactics are linked with price manipulating, improving product differentiation, or modern methods of using channels of distribution. The South African government has found competition influences the SME contribution to the economy (DTI 2005: 11). Furthermore, Cromhout and Duffett (2022: 3) are of the view lack of marketing tools by SMEs negatively influences the growth of these firms. This view needs to be evaluated, along with its impact on the construction SME sector in the Eastern Cape.

For construction SMEs to survive in the market, they need to adopt certain marketing strategies that might be associated with bidding prices and using innovation methods (Öney-Yazýcý and Acar 2006: 438). Consequently, those construction SMEs will have the power to attract new customers and retain existing customers, thus, achieving market growth (Amadasun and Mutezo 2022: 7). This study, therefore, suggests use of marketing tools will enable construction SMEs to gain competitive advantage in the market, and more importantly, achieve sustainable business growth.

3.3.3.2 Global competitors

Globalisation refers to the multidimensional process by which markets, firms, production and national financial systems are connected on a global scale (Oyewobi *et al.* 2022: 17; Burlacu, Gutu and Matei 2018: 122). The authors argue that should globalisation be correctly managed by governments, particularly in developing countries, globalisation will not have a negative effect (Burlacu *et. al,* 2018: 125). In support, Rani *et al*. (2023: 553) state globalisation enables growth and competitiveness of the construction industry, since it brings investment through free trade agreements.

This contradicts Windapo and Cattell (2013: 67), who point out the huge impact caused by globalisation in developing countries where construction activities are imported by international construction firms, which deprives local construction SMEs from accessing available projects to enable them to grow. In addition, Murray and Appiah-Baiden (2002: 281) argue globalisation in the construction industry is not helpful to the economy of developing countries, since international construction firms often take over contracts that local construction firms could easily execute in their own countries.

According to Ofori (2012: 3), disadvantages of globalisation to the construction sector in developing countries include, local construction firms lack funding and expertise compared to fully developed international firms, local construction firms have insufficient technical and managerial capability to undertake most foreign-funded projects, globalisation deprives local construction firms the opportunity to grow, and local construction firms may not acquire skills and technology that will facilitate growth. Hence, Dlungwana *et al.* (2002: 7) explain globalisation comes with many challenges and opportunities, and construction SMEs must adopt an appropriate culture, systems, and tools, to survive in the market. There is agreement among scholars on the globalisation impact on the construction industry. It is, therefore, important to investigate the influence of globalisation on the construction SME contribution to economic growth. The next section discusses political factors that may influence the construction SME contribution to the economy.

3.3.4 Political factors

A politically stable country, as stated by Krammer and Kafouros (2022: 4), does not only facilitate foreign investment, but it also enables business development and help businesses to attract funding and acquire technical knowledge from abroad. In addition, the authors state a stable political situation facilitates innovation in firms (Krammer and Kafouros 2022: 4). It is, therefore, important for governments to create a stable political environment, as it enhances growth and development and also encourages both foreign and local investment. Krammer and Kafouros (2022: 1) further argue construction SMEs that operate in countries facing political instability are exposed to great uncertainty, exorbitant operating costs, and adverse political patronage. In this regard, Rehman *et al.* (2019: 2) are of the view an unstable political situation results in low labour productivity in construction SMEs.

Rehman *et al.* (2019: 4) determined policies related to political instability were, furthermore, often a major constraint to the growth of SME businesses in Albania, Georgia, Morocco, and Nigeria, as well as Pakistan. In support, Mohammed and Bunyaminu (2021: 3) highlight a study conducted by Wang (2016) that found political instability is one of the key obstacles faced by SMEs in developing countries. Subsequently, businesses have moved their operations from countries

such as Zimbabwe and Congo to SA, due to unstable political activities that result in unpredictable markets (Muzurura 2019: 114 and Ngibe 2020: 80). In Pakistan, it was discovered that political support offers limited support to SMEs (Khan *et al.* 2022: 2). Therefore, this study seeks to test if this hypothesis is correct in the context of the construction SMEs in the Eastern Cape.

As such, it can be concluded a country with stable political conditions is likely to facilitate a good environment for construction SMEs, aiding their contribution to economic growth. Therefore, unstable political conditions could be a hindrance to construction SME growth and success, thus, disabling them from contributing positively to economic growth. Hence, the South African government needs to intentionally develop friendly policies that foster political stability that will enable the sustainability of construction SMEs. Globally, every aspect of politics and its relation to other countries highly affect the business condition (Farooq 2020: para. 1 line 1). In conclusion, it is important construction SMEs ensure political factors relate to business interaction with local government and agencies, developing a good working relationship with the mayor and city staff members (Kokemuller 2021: 1).

3.3.4.1 Corruption – awarding of tenders

Ezebilo, Odhuno and Kavan (2019: 2) maintain corruption associated with the public sector is often perceived as one of the biggest threats to construction SME growth in developing countries such as SA. Schoeman, Evans and Du Preez (2022: 1) and Nordin *et al.* (2011: 330) concur corruption is a threat to construction and engineering businesses, as well as those institutions and companies that fund and/or guarantee construction projects. The World Bank defines corruption as the abuse of public office for private gain by public officials (Abed and Gupta 2002: 25).

According to Ezebilo *et al*. (2019: 2), scholars such as Sharma and Mitra (2015), Fisman and Svensson (2007) and Athanasouli (2011) have conducted studies on the impact of corruption on firm growth, revealing the following key impediments to SME growth, namely: bribe payments, which diminish business profitability and technical efficiency; bribery, which decreases firm growth; corruption diminishes the probability of new products being introduced; and businesses that engage in

corruption have a lower level of performance. Furthermore, Nordin *et al*. (2011: 330) highlight corruption could result in wasted tender expenses, tender uncertainty, increased project costs and reputational risks for construction SMEs. Hence, Lekan *et al*. (2021: 2) assert one of the challenges facing construction SMEs is corrupt governmental policies.

A study on the Malawi construction sector discovered corruption is a major contributor to tender awards, where construction businesses pay bribes to be awarded a contract (Phiri and Smallwood 2010: 109). Mmbengeni, Mavhungu and John (2021: 2) point out SA struggles with high levels of fraud and corruption that negatively affect the business environment in the country. Ezebilo *et al*. (2019: 14) studied the perceived impact of corruption conducted in SA and discovered corruption has dire consequences for construction SMEs, which include hindrance to innovation, competitiveness and effectiveness of these firms. Consequently, this limits their contribution to economic growth due to government losing revenue that should have been collected through tax (Ezebilo *et al*. 2019: 14). Based on the above literature, it can be argued corruption is the greatest enemy to the growth of construction SMEs, limiting their contribution to economic growth. Thus, governments must develop interventions that will enable a corruption free environment for construction SMEs, since growth of the construction SME is proportional to its revenue and profits (Kor *et al*. 2016: 1729).

There is consensus that to fight corruption, extensive measures must be formulated by governments, which include regulatory reforms, as well as further reductions in business activity regulations and improvements in the management and oversight of public funds use (Ezebilo *et al*. 2019: 14; Ibrahim, Erdogan and Nielsen 2019: 137; Abed and Gupta 2002: 559). Nevertheless, Nordin *et al.* (2011: 333) suggest countries must have a whistle-blowing policy to combat corruption, implemented within all construction businesses. In addition, government must develop expertise associated with the anti-corruption field, to formulate policies when dealing with construction projects. Based on the above literature, there is a need to investigate whether corruption exists and influences construction SME performance. The next section is aimed at dealing with economic factors that affect construction SMEs.

3.3.5 Economic factors' influence on construction SMEs

Eruemegbe (2015: 485) finds the main economic factors that may influence many businesses are inflation, interest rates and unemployment. According to Dvorský *et al.* (2020: 98), economic factors are key determinants of business conditions in every nation, hence, these factors can significantly influence construction SME profitability. The authors further claim the overall business performance cannot be separated from the impact of economic factors and these factors influence construction SMEs at both local and international levels (Dvorský *et al*. 2020: 98).

Leitch *et al.* (2010: 250) believe business growth is not without risks, however, entrepreneurs are able to find innovative ways of mitigating risks associated with business growth. Farooq (2020: para. 1 line 1) caution since the global economy is volatile, most construction SMEs must be careful of its impact at all times. Based on the above literature, it is important for construction SMEs to position themselves such that economic factors have less impact on their operations.

3.3.5.1 High material prices

According to Cengiz, Aydınli and Oral (2019: 2), where cost of materials for construction SMEs is concerned, suppliers have an upper hand that greatly affects the performance of the construction SMEs. Hence, Porter's model accepts that when suppliers have bargaining power, they can put much pressure on businesses in the construction industry, consequently affecting profits of the construction businesses (Öney-Yazýcý and Acar 2006: 438). This occurs particularly when varying supplier costs are high. Tayeh *et al.* (2019: 56) point out that escalated and unstable construction material prices attributed to suppliers are evident in the construction sector. This links back to Taiwo and Falohun (2016: 43), who maintain the excessive price of materials has been widely acknowledged as one the challenges facing construction SMEs in developing countries.

In support, Dosumu and Aigbavboa (2018: 19) highlight escalating building material costs is one of the factors that affect the construction industry. Adeyemi and Aigbavboa (2018: 1565) agree and state that high prices of materials hinder construction industry performance. One of the key factors found by Melba, Dhanya and Ganapathy (2015, cited Adeyemi and Aigbavboa 2018: 1570) that influence construction project profit margins, is excessive materials cost quoted. This study

concludes high prices of materials owed to suppliers have the likelihood of influencing the contribution of construction SMEs. Therefore, it is critical for this study to ascertain the cause and impact of high material prices on construction SMEs in the Eastern Cape.

3.3.5.2 Increased inflation

Inflation can be defined as an increase in the cost level of a good or service (Musarat, Alaloul and Liew 2021: 407). According to Musarat *et al.* (2021: 407), the inflation rate has a huge implication for budget estimates of projects, which leads to budget revisions and ultimately, an increase in project costs. Musarat *et al.* (2020: 2) agree this is caused by inflation playing an important role in the increase of material costs, labour, and machinery (Musarat *et al.* 2021: 407). In addition, Musarat *et al.* (2020: 2) state an increase in the inflation rate is linked with the increase in materials cost, where employees will also want a raise in salaries to compel the higher living cost. In support, Eze *et al.* (2020: 44) state inflation increases the material prices, which result in delayed payments by construction SMEs. Hence, Buhlungu and Tuan (2021: 3) claim high inflation complicates preparation and implementation of projects.

Ademosu and Morakinyo (2021: 35) indicate that the inflation rate depreciates the value of loans to SMEs, decreasing opportunities for construction SMEs to access finance. Furthermore, a study by Ofeimun, Nwakoby and Izekor (2018: 22) on the effects of inflation in Nigeria, found a considerable correlation between inflation and small business growth. This means construction SMEs rely on inputs to action their services or production, therefore, the steadier the prices of such inputs, the better for construction SMEs. To minimise the impact of inflation, construction SMEs need to develop a budget estimation strategy that will consider past material costs with the inflation rate (Musarat *et al.* 2020: 11). In addition, Asante *et al.* (2018: 366) suggest government must develop SME policies that will lessen the impact of high interest rates and high inflation to facilitate construction SME development.

Based on the above literature, it can be argued inflation does not only increase the costs of construction SMEs doing business but hinders these firms in obtaining funding from financing agencies. Thus, these businesses need to develop

strategies that will protect them from these possible increases in inflation. This can be achieved by means of the construction SMEs saving some cash that will compensate for these inflation costs, as an when imposed on them by authorities.

3.3.5.3 High interest rates

Interest rate can be defined as a premium obtained by a money lender over a defined period (Kisseih 2017: 45). Ferrari, Masetti and Ren (2018: 6) state the level of interest rates is based on the cost financial institutions pay to borrow the money they loan out. High interest rates are not good for construction SMEs (Cant and Wiid 2013: 714; Balogun and Ansary 2017: 230). For example, Kisseih (2017: 45) argues when the interest rate is high, businesses tend to delay borrowing money until the cost of borrowing decreases. Nonetheless, Mutezo (2013: 153) contends high interest rates escalate the costs of SMEs doing business, which reduce their profit margins and, consequently, nullify the merits of obtaining external funding. The author states high interest rates are not good for SMEs long-term development (Mutezo 2013: 153). Asah *et al.* (2020: 3) highlight the current position of the South African economy, where interest rates are a major challenge, implies it will be difficult for construction SMEs to have positive leverage.

According to Balogun *et al.* (2018: 521) and Eyiah, Kheni and Acquah (2018: 28), high interest rates is one of the factors that hinders construction SMEs to obtain credit from financial institutions. In support, Aghimien *et al.* (2019: 214) state it is not easy for construction SMEs in SA to access funding, due to the continuous interest rate increase making it difficult for these firms to thrive in the competitive market. This echoes findings from the study by Cant and Wiid (2013: 714), which confirmed one of the macro environmental factors affecting South African SMEs is the high interest rates associated with loans.

In Ghana, Ametepey, Jnr and Cobbina (2022: 52) and Kisseih (2017: 52) discovered that, one of the greatest challenges associated with financial barriers faced by construction SMEs, is high interest rates on loans when borrowing money from lending institutions. Based on the above research, it can be deduced that high interest rates make it financially unsustainable for construction SMEs to acquire funding from lending institutions. Therefore, it is vitally important for the

researcher to investigate whether high interest rates influence the construction SME contribution to economic growth in the Eastern Cape.

3.3.6 Social factors affecting construction SMEs

Social environmental factors in any business comprise “societal movements, changes in public values and attitudes people in the marketplace have toward working for your business” (Kokemuller 2021: 1). According to Jin, Liu and Chen (2022: 507), social trust as one of the factors, is a critical component of an external cultural environment for businesses such as construction SMEs. Furthermore, high degrees of social trust were found to be linked with anticipated outcomes by the community (Ouechtati, Masmoudi and Slim 2022: 15).

Every society has its unique requirements that shape regional business personas and are one of the primary external factors for business environment (Farooq 2020: para. 1 line 1). Indris and Primiana (2015: 189) state the social surrounding is made up of factors linked to the day-to-day organisational activities that affect short- and long-term decisions. These include economic forces that administer the exchange of materials, money, energy, and information, the influence of technology, and the influence of political law, which allocates power and provides coercion and protection laws and rules, as well as the power of socio-cultural norms that set the values, traditions and customs of an indigenous environment.

Based on this view, Jaya *et al.* (2021: 39) state companies need to analyse the competitive environment, choose a good strategy, and find the resources needed to implement the company’s plan to achieve a sustainable competitive advantage, with social factors playing a key role in this process. Thus, construction SME entrepreneurs need to take innovative actions that allow them to take full advantage of opportunities presented by social factors (Tur-Porcar, Roig-Tierno and Llorca Mestre 2018: 2).

3.3.6.1 Crime relative to Eastern Cape construction SMEs

According to Nyathi (2022: 26), the high levels of crime in SA have been recognised as the worst when compared to the global fraternity. Several authors have tried to conceptualise the impact of crime to the business sector (Nyathi 2022; Bhorat and Naidoo 2017; Kyobe 2010). Nevertheless, crime in the construction industry has not received the attention it requires in the construction

field (Engebø *et al.* 2018: 337). Due to the nature of the construction industry, Flysjö (2020: 1) and Engebø *et al*. (2018: 337) argue it is vulnerable to organised crime and that has dire consequences for the sector. Hence, the research on crime in the construction industry should be intensified.

A study by Ncwadi and Dangalaza (2005: 8) on challenges faced by emerging contractors in the Nelson Mandela Bay Metropole in the Eastern Cape, found construction SMEs were heavily affected by crime in construction sites, which negatively affected these firms. Crime is a threat to the construction industry and its SMEs who are navigating through difficult conditions. For example, the Mtentu bridge in the Eastern Cape, which is one of 60 SANRAL critical projects in the country that was stopped due to organised crime conducted by mafias demanding 30 percent of the project contract value (Irish-Qobosheane 2022: 9). These mafias used guns to threaten contractor employees, resulting in the site being inaccessible for 84 days (Irish-Qobosheane 2022: 9).

For this reason, it can be argued the effects of crime in the construction industry are appalling, considering government failure to enforce stringent regulations to protect the construction industry from the mafias, who refer to themselves as business forums (Donnelly 2019; Pocock 2018). Consequently, Mulaudzi and Lancaster (2021: 1) highlight many projects in SA have been aggressively disrupted and stopped due to crime activities, giving rise to engineers and highly skilled technical people leaving the country, with fewer projects to accommodate their skills. Therefore, it can be concluded crime denies construction SMEs the opportunity to grow through key projects such as the Mtentu bridge, owing to stoppages of these projects.

Donnelly (2019: 1) and Pocock (2018: 6) report this crime is often caused by entities who identify themselves to be local community or business forums and demand a share of 30 percent of the project value. Pocock (2018: 6) describes these activities as mafia modus, which occurs when a group of protestors is organised to access a construction site to disrupt construction activities). Donnelly (2019: 1) found the phenomenon of construction mafia that affects the construction industry originated in KwaZulu-Natal (KZN), and is now happening in the Eastern Cape, Gauteng and Mpumalanga provinces.

Pocock (2018: 6) argues these actions originate from the provisions of the amended regulations to the Preferential Procurement Policy Framework Act (PPPFA) (Act 5 of 2000), where contractors executing government projects amounting to R30 million and above must sub-contract at least 30 percent of the value to Exempted Micro Enterprises (EMEs) or Qualifying Small Business Enterprises (QSEs) or a small business as defined in the Small Business Act (SA: Department of Small Business Development 1996).

Based on the above, it is clear crime in the construction industry is expanding across all the provinces in the country and it prohibits construction SMEs from contributing to SA's economic growth. Hence, there is a need for urgent government intervention to prevent the industry from collapsing because of crime. This can be achieved through government reviewing laws and regulations that encourage and perpetuate the mafia tendencies in the country. The next session discusses poverty and unemployment as a social factor that influences construction SMEs.

3.3.6.2 Poverty and unemployment

Cheteni, Mah and Yohane (2018: 1) are of the view that SA is highly affected by three key social harms namely poverty, high crime, and inequality. In addition, Makaringe and Khobai (2018: 2) state the level of unemployment in SA is very high and this results in the loss of human capital, social exclusion, increase in the level of crime, and illness. According to Makaringe and Khobai (2018: 3), economic growth plays an important role reducing unemployment and poverty.

Post 1994, the ANC government put measures in place to improve the country's economic advancement and this saw a doubling in national income, resulting in millions of South Africans being pulled out of poverty and into the middle class (Awuah 2019: 1; Leke *et al.* 2015: 1). This viewpoint supports Mahadea and Simson (2010: 391), who found that since eradication of the apartheid era in SA, the economy recorded positive economic growth, where the average growth rate was three percent for the period 1994-2003 and five percent from 2004 to 2007. Leke *et al.* (2015: 12) argue that infrastructure development through the construction industry has been the major driver of economic growth and eradicating poverty and unemployment, with the South African government making

infrastructure delivery a policy priority. Therefore, the role of construction SMEs as a major driver in eradicating poverty and employment cannot be underestimated.

The alarming rate of high unemployment remains one of the main challenges in the South African economy is struggling with and this is partially caused by a chronic shortage of skilled labour (SEDA 2016: 5). The rate of unemployment in SA increased from 25 percent in 2016, to 27.1 percent in 2017 and decreased to 26.9 in 2018. In year 2019, the unemployment rate in SA increased to 28.8 percent and in 2020 it remains steady, recording 28.5 percent (StatsSA 2019: 7).

A report by Statistics SA (2019: 8) revealed that South African youth aged 15-24 years remain the most susceptible labour market with the highest globally recorded unemployment rate of 40.7 percent in the first quarter of 2019. The unemployment rate increased by 0.5 percent when comparing Q1 of 2019 and Q4 of 2018 with the largest increase in Mpumalanga, Limpopo and Eastern Cape that recorded an increase of 2.2 percent, two percent and 1.3 percent, respectively, as shown (Table 3.1) below.

Table 3.1: Unemployment rate in SA by province

	Official unemployment rate					Expanded unemployment rate				
	Jan-Mar 2018	Oct-Dec 2018	Jan-Mar 2019	Qtr-to-qtr change	Year-on-year change	Jan-Mar 2018	Oct-Dec 2018	Jan-Mar 2019	Qtr-to-qtr change	Year-on-year change
	Per cent			Percentage points		Per cent			Percentage points	
South Africa	**26,7**	**27,1**	**27,6**	**0,5**	**0,9**	**36,7**	**37,0**	**38,0**	**1,0**	**1,3**
Western Cape	19,7	19,3	19,5	0,2	-0,2	22,5	23,1	22,7	-0,4	0,2
Eastern Cape	35,6	36,1	37,4	1,3	1,8	46,0	46,8	48,3	1,5	2,3
Northern Cape	29,5	25,0	26,0	1,0	-3,5	41,0	38,6	41,5	2,9	0,5
Free State	32,8	32,9	34,9	2,0	2,1	38,4	39,3	40,1	0,8	1,7
KwaZulu-Natal	22,3	25,6	25,1	-0,5	2,8	40,6	41,3	42,4	1,1	1,8
North West	25,8	26,6	26,4	-0,2	0,6	41,8	42,9	44,4	1,5	2,6
Gauteng	28,6	29,0	28,9	-0,1	0,3	33,6	33,6	33,6	0,0	0,0
Mpumalanga	32,4	32,0	34,2	2,2	1,8	42,5	41,1	43,0	1,9	0,5
Limpopo	19,9	16,5	18,5	2,0	-1,4	37,6	38,8	43,1	4,3	5,5

Source: Statistics SA (2019: 7)

According to the CIDB (2021: 2) the high level of unemployment and poverty means businesses, which include construction SMEs, are not contributing as expected to the economic growth in SA. Hence, Twum *et al.* (2020: 222) argue a low level of unemployment creates greater opportunities for government to collect more tax from private individuals and this, ultimately, contributes to the nation's

GDP. Based on the above literature, it is important for government to support construction SMEs in order to ensure their full contribution to economic growth, which will lead to low levels of unemployment and poverty.

3.3.6.3 COVID-19 epidemic

On 11 March 2020, the COVID-19 outbreak that started in China in December 2019 was declared a pandemic by the World Health Organisation (WHO) (Crettelli, Sahota and Jbara 2020: 1). The pandemic spread across the world including to SA, resulting in the government placing the country into 21-days lockdown from 23 March 2020, in order to curb the spread of the virus (Fubah and Moos 2022: 5). During the lockdown, all businesses including construction SMEs were instructed to close operations, except the essential goods and services which had to obtain permits to continue operating. According to Engidaw (2022: 2), the COVID-19 pandemic brought much destruction to lives and livelihoods, including social and economic systems globally. The author further states the pandemic has had severe effects on business activities, where big and small firms were shuttered with no income whatsoever.

Another way in which COVID-19 is influencing the global economy, is its impact on the construction industry (King *et al.* 2021: 359). It was predicted the ongoing COVID-19 pandemic would likely leave a long-lasting if not an indelible impact on the construction SMEs in SA (Rajagopaul, Magwentshu and Kalidas 2020: 2).

According to Rajagopaul *et al.* (2020: 2), construction SMEs in SA faced major challenges prior to the COVID-19 pandemic, however, COVID-19 has worsened these and brought new, additional challenges. For example, lockdown measures imposed by the South African government resulted in revenues in many construction SMEs to fall precipitously and the majority reported the need to cut back on business spending to survive (Rajagopaul *et al*. 2020: 2). This had a ripple effect on economic growth. In support of this view, King *et al*. (2021: 359) argue any decrease in construction activities may affect overall economic activities, as there is a very strong relationship between construction activities and GDP.

Al-Fadly (2020: 630) states the challenge faced by SMEs is the COVID-19 pandemic has not only become a public health problem but an economic crisis as

well, threatening the SME sector. Fubah and Moos (2022: 2) contend that although the country is amongst the top countries heavily affected by COVID-19, there is still limited research on COVID-19 challenges faced by construction SMEs in SA.

However, King *et al*. (2021: 359) state several studies have investigated the COVID-19 pandemic impact in different industries. Crettelli *et al*. (2020: 1) found that because of COVID-19, the construction industry has been hit hard, which has led to many obstacles linked to contractual obligations, availability of resources, deliverables, as well as health and safety measures, and project delays or cancellations. Zamani *et al.* (2021: 2) found COVID-19 has impacted the construction industry by causing operational and financial challenges.

These operational and financial issues are caused by projects that were stopped during lockdown and changes to the legislation. Furthermore, Fazel (2021: 21) found the outbreak of COVID-19 had a negative impact on the construction sector resulting in the postponement of major construction projects affecting construction firms, particularly SMEs. Amoah, Bamfo-Agyei and Simpeh (2022: 1112) discovered the effects of COVID-19 on small construction firms in Ghana include financial and cashflow issues, along with site management, amongst others. Therefore, the influence of COVID-19 on the contribution of construction SMEs to economic growth cannot be underestimated and needs to be uncovered. The following section discusses the influence of infrastructure on the contribution of construction SMEs.

3.3.6.4 Infrastructure

According to Gaal and Afrah (2017: 1), infrastructure refers to the basic equipment and buildings, for example airports, electricity, roads and bridges, as well as water supply, sanitation and sewerage, which are basic requirements for construction SMEs. Mbaku (2013: 1) argues proper infrastructure enhances economic growth and development. This echoes Kamal and Flanagan (2012: 195), who argue that lack of infrastructure is a major challenge to construction SMEs, particularly for projects located far from urban areas and this condition does not promote development of absorbent capacity.

In support, SEDA (2016: 7) states inadequate access to physical infrastructure has always been a hindrance to firm growth and increased business operational costs. An example is that construction SMEs in rural areas may struggle to obtain equipment such as a concrete pump (Kamal and Flanagan 2012: 195). Hence, Msomi and Olarewaju (2021a: 122) discover inadequate infrastructure as a factor that limits the success of construction SMEs. This suggests without the correct infrastructure to facilitate construction activities, growth of construction SMEs executing work in sites far from urban areas is likely to be limited. Research by Usman and Alaezi (2016: 4) in Nigeria shows construction SMEs have not performed to the required expectation, due to increased unemployment and poverty, and lack of infrastructure for economic development. The study by Mbomvu *et al.* (2021: 9) on the impact of electricity load shedding in SA discovered these rolling blackouts are negatively affecting SMEs, including construction SMEs, and ultimately reducing profit margins, as some construction activities require electricity.

Thus, Ngibe, Lekhanya and Garbharran (2019: 4) argue proper infrastructure is a key driver to improve growth in emerging countries such as SA. Hence, proper infrastructure is viewed as an enabler for construction firms to be innovative and competitive in the market (Zainon, Skitmore and Mohd-Rahim 2022: 11). Without proper infrastructure such as electricity, roads and telecommunications, the contribution of construction SMEs to economic growth could, therefore, be limited (Lekhanya and Mason 2014: 336).

3.3.7 Technology affects the construction SME contribution

According to Farooq (2020: para. 1 line 1), technology is one of the primary drivers in today's world, since it helps businesses build competitive advantage by producing more competitive products and services and more effective processes or creating completely new business (Yu and Hao 2011: 366). This is confirmed by Cherian and Kumaran (2016: 1), who state that ICT, which is a large part of Information technology, has revolutionised the process of information creation, exchange, storage, and access, as well as the ability to view. The tools mainly used for ICT are the internet, computer, telephone and wireless signals (Cherian and Kumaran 2016: 1). Based on the above, it is clear ICT is crucial for every construction SME, could improve the stream of information and reduce costs that

would lead to improved performance and a higher profit margin. Therefore, there is a need for construction SMEs to acquire new knowledge, in order to create competitive advantage from innovation.

Consequently, Acar *et al.* (2005: 713) state construction SMEs can use ICT as an enabler for integration, collaboration, knowledge management, and procurement, along with site management, and process improvement. In addition, Cherian and Kumaran (2016: 1) affirm the construction sector SMEs could take advantage of ICT by using the four most internal processes of ICT, which are e-tendering, e-site, e-procurement and e-quality. Ntwoku, Negash and Meso (2017: 297) argue SMEs in developing countries, such as Cameroon and SA, may not have the resources to innovate their own ICTs. The application of E-business in the construction sector is illustrated (Figure 3.1) below, where different outputs are integrated.

Figure 3.1: E-Business application in Construction Sector

Source: Cherian and Kumaran (2016: 4)

Acar *et al.* (2005: 713) argue although ICTs are powerful tools for rapid and broader diffusion of technical knowledge, few SMEs are taking full advantage of their benefits. In Cameroon, Ntwoku *et al*. (2017:311) examined the adoption of ICT by SMEs and discovered only well-established firms who turned to the use of ICTs. This supports Cherian and Kumaran (2016: 1), who view the use of ICT in the construction sector as low, even though it has the greatest potential of increasing productivity.

In contrast, Azevedo and Almeida (2021: 2) find SMEs easily adapt and take advantage of new technology due to fast decision-making, owed to shorter communication lines. In support of previous authors, Anjum (2019: 1238) contends SMEs globally have recognised the importance of ICT, which is why more SMEs are planning to invest in technology related projects to achieve an improved competitive edge amongst larger businesses. The author further argues technology enables innovation within the SME, hence, SMEs understands embracing ICT is now a necessity (Anjum 2019: 1238). In India, it was observed that project stakeholders are geographically situated in different locations, and this results in delayed project completion, due to delays in receiving accurate information and resources (Cherian and Kumaran 2016:1). Adoption of ICT provides a major solution to having information available by means of, for example, cloud computing (Anjum 2019: 1239).

According to Cherian and Kumaran (2016: 1), technology offers businesses opportunities to be competitive where transactions are carried out on a global scale. Furthermore, Cooper (2022: 3) contends technology is a game-changer, providing SMEs an opportunity to remain competitive in the market, while competing with bigger companies. Therefore, the implementation of E-Business in the construction sector could offer construction SMEs the opportunity to reform and remodel the old way of doing things. In addition, its impact can be of great significance, leading to improved business performance (Cherian and Kumaran 2016: 3).

However, Ntwoku *et al.* (2017: 311) believe a challenge remains with the use of ICTs. For example, in Norway, a study on enablers and inhibitors to fourth industrial revolution (IR 4.0) technology by Mogos, Eleftheriadis and Myklebust (2019: 628), discovered key factors that prevent SME adoption of IR 4.0 technology are, limited knowledge on IR 4.0 advantages and disadvantages, lack of digitalisation skills and high technological costs associated with IR 4.0. Therefore, this study seeks to test if this hypothesis is correct in the context of the construction SMEs in the Eastern Cape. In India, Anjum (2019: 1249) examined ICT adoption and its influencing factors by SMEs and discovered technology up-gradation is a key significant factor in capacity development. In Nigeria, Eze and Ugulu (2021: 168) examined factors that prevent construction SMEs form using IR

4.0 and discovered key inhibitors include lack of finance, insufficient management support, lack of knowledge regarding industry 4.0, and resistance by junior and muddle management staff.

In SA, a study on evaluation of modern technology use for effective material management in the construction industry by Odubiyi *et al.* (2019: 5) discovered factors influencing construction firms on adopting modern technology include lack of finance, culture barriers and work environment challenges. Literature on adoption of modern technology by construction SMEs in SA is, however, limited. Based on the above literature, it can be concluded that while there is an undisputable benefit associated with technology adoption (Eze and Ugulu 2021: 165; Anjum 2019: 1239), research indicates critical factors such as culture barriers and lack of finance associated with adopting modern technology. Hence, there is a need to investigate use of modern technology by construction SMEs in the Eastern Cape. The next section will discuss legal factors that influence construction SMEs.

3.3.8 Legal factors influencing construction SMEs

Kent (2013: 1) avers there are “too many laws that are killing small business, and banks have made it harder for small business to borrow money”. Ngibe (2020: 80) argues the government of every country is responsible for implementation of these laws, which govern compliance conditions for small businesses. Hence, Windapo *et al.* (2020: 2) indicate regulatory barriers that are a huge risk to the growth and sustainability of construction SMEs. The impact of legal and regulatory framework in Tanzania led to excessively difficult registration and licensing requirements that put a strain on SME operations, resulting in poor performance (Anderson 2017: 22).

In Indonesia, a study by Suliantoro, Winarno and Handayani (2019: 13) assessed the success factors of SMEs on public procurement and found government regulations to be an obstacle to SMEs. In Malaysia, a study by Salleh *et al.* (2021: 30) on business risks that affect construction SME performance, corroborates that government regulations are a risk to the success of these firms. Likewise, in Jordania, a study by Lutfi *et al.* (2022: 11) found government regulation influenced the decision of SMEs in adopting big data analytics. Thus, the impact of

regulations for construction SMEs has dire effects that expose these businesses to major operational challenges, including business registration and compliance.

3.3.8.1 SME Business Registration and Licensing

In every country there are many licences, registrations and certifications that need to be adhered to by SMEs to conduct a business and these are regulated by government (Sawaya and Bhero 2018: 546). SMEs are not exempt from the constraints associated with macro environmental factors, such as payment of registrations, licence fees and taxes (Cant and Wiid 2013: 707). In addition, Abdissa and Fitwi (2016: 48) contend that regulatory constraints, which include registration and licencing of businesses, is one of the factors that negatively affects construction SME performance in both developed and developing countries. Moreover, Sitharam (2014: 29) states SME owners experience challenges with matters regarding licencing of their business, as they are not allowed to operate without a range of licences and permits. Furthermore, Akinyemi and Adejumo (2018: 5) identify matters associated with business registration processes as a bottleneck to small firms during the start-up phase.

In most cases, the nation's legal and regulatory laws negatively influence the operational performance of construction SMEs, because of complex registration and licencing requirements (Anderson 2017: 22). Ngibe (2020: 61) states regulatory requirements for construction SMEs, such as compliance with income tax registration, VAT, UIF, COID, and Pay As You Earn (PAYE), are a huge financial and administrative burden for businesses, including the construction industry. These regulatory requirements influence competitiveness and profitability of construction SMEs to a great extent (Akinyemi and Adejumo 2018: 4).

This is confirmed in a study on construction SMEs in Nigeria by Lekan *et al*. (2021:19), who discovered government policy as a major factor affecting the success of these firms. Similar to Kenya, registration and licencing compliance of SMEs prove to be a complicated and tedious process, putting a lot of strain on businesses, with the result that SME owners are forced to evade some of these critical procedures, which in the long run, affect business performance (Maingi *et al.* 2019: 1). Likewise, in SA, it takes 176 days for the business owner to deal with

licencing issues, with 18 procedures to be followed in ensuring licencing matters are fully addressed (Abor and Quartey 2010: 224).

Lekhanya (2015a: 413) also points out that SME owners/managers in SA, in dealing with bureaucratic licencing procedures, face a major challenge. Furthermore, Maingi *et al.* (2019: 1) also highlight the challenges associated with bureaucratic licencing procedures in SA are like the effect on business procedures in Kenya. The authors discovered registration and licencing procedures influence the growth of youth-owned SMEs (Maingi *et al.* 2019). Based on the above literature, it can be concluded business registration and licences can be a major obstacle and financial burden to construction SME success. This is due to construction SME owners/managers not having the necessary skills to ensure compliance with the registration and licencing, which leads to having to outsource these services. In addition, construction SMEs are required to pay a fee to the statutory bodies dealing with registration and compliances.

Windapo *et al.* (2020: 2) argue some of these regulations are not relevant but attract unnecessary compliance costs that are a burden to construction SMEs. This study argues that depending on how government uses policies relating to business registration and licencing, these polices can be beneficial or harmful to construction SMEs. There is thus a need to investigate the influence of business registration and licencing on construction SMEs in the Eastern Cape. The next section discusses different legislations affecting construction SMEs.

3.3.8.2 Legislation affecting construction SMEs

3.3.8.2.1 Construction Industry Development Act No. 38 OF 2000 (CIDA)

The CIDB is a public entity, established in terms of the Construction Industry Development Act, No. 38 of 2000 (CIDA). Its aim is to encourage and facilitate the construction sector contribution in meeting national construction demand and to promote industry performance at large (Ofori-Kuragu *et al.* 2016: 143). According to Appels (2010: 24), the primary purpose of the CIDA is to create a statutory body to drive the integrated development strategy and stimulate growth of the construction sector.

The Minister of Public Works, honourable Patricia de Lille, in the 2020/2021 annual report highlighted the construction industry has a crucial role to play in

reinvigorating the economy in SA (Fazel 2021: 11). With the CIDB as a driving force, this goal is achievable through implementing infrastructure development and ensuring achievement of the National Development Plan (NDP) goal to increase public sector infrastructure investment to 10 percent of GDP by 2030 and the three-year rollout infrastructure development plan of R947 billion (CIDB 2017: 5).

According to Adediran and Windapo (2016: 214), in fulfilling its mandate, the CIDB established the NCDP, to remove impediments that are a risk to construction SME growth. The authors further state the NCDP ensures contractor development for construction SME is achieved by government entities whenever there is procurement of infrastructure (Adediran and Windapo 2016: 214). However, Bikitsha and Amoah (2022: 2035) contend the CIDB is not doing enough to manage competition within the construction SME sector, which affects the performance of construction SMEs. As such, the support of the CIDB is questionable to the growth of construction SMEs.

As part of compliance, in terms of the CIDB Act 38 of 2000, the board is mandated to establish and maintain the register of construction firms, which categorises these firms in a manner that enables public sector procurement and promotes construction firm development (CIDB Act, No 38 of 2000). In addition, the CIDB is also mandated to establish the national register of projects to collect information on the nature, value and distribution of projects, where clients are expected to register infrastructure projects with the board (CIDB 2017: 16). According to the CIDB (2017: 16), construction businesses can register in five categories of work, namely civil engineering, general building, mechanical engineering, and electrical engineering, as well as specialist work, with are nine grades offered, as detailed (Table 3.2) below.

Table 3.2: Registration across grades and classes of construction work

DESIGNATION	CE	EB	EP	GB	ME	SW	TOTAL
1	37754	1834	7240	71581	7015	20717	**146141**
2	2950	248	305	4160	443	958	**9064**
3	1416	99	158	1054	145	238	**3110**
4	1614	166	392	1527	301	265	**4265**
5	913	96	239	798	166	168	**2380**
6	1161	91	278	1018	199	156	**2903**
7	679	51	140	544	106	88	**1608**
8	247	9	54	215	56	28	**609**
9	104	4	39	65	45	12	**269**
TOTAL	**46838**	**2598**	**8845**	**80962**	**8476**	**22630**	**170349**

Note: Contractors may be registered in multiple classes of work
CE – Civil, **EB/EP** – Electrical, **GB** – Building, **ME** – Mechanical, **SW** – Specialist class of works

Source: CIDB (2017: 16)

3.3.8.2.2 Preferential Procurement System in SA

According to the CIDB, procurement is a process of acquiring goods and services through a defined process that creates, manages, and achieves contracts pertaining to the expansion and execution of engineering goods and services, the contracting of people, plant and equipment, and the enablement of a process to obtain rights and concession (Hlakudi 2015: 60). In addition, Magoro and Brynard (2010: 5) define procurement as a structured process of obtaining goods and services from external suppliers. Hence, public procurement is defined as a process utilised by government to purchase goods and services required from the private sector (Hlakudi 2015: 60).

Furthermore, Reddy (2016: 468) states there is often a need to execute infrastructure projects for the development of communities as part of the South African government achieving its mandate, which is done through the procurement of supplies or payment for services rendered by the private sector. The author further highlights that these goods and services required by government are obtained through public procurement, which is incorporated in the procurement policy as a measure to enable social and economic empowerment (Reddy 2016).

Hlakudi (2015: 56) believes the Preferential Procurement Policy was developed to redress inequalities resulting from the previous apartheid government, by ensuring full participation of previously disadvantaged black South Africans including women, youth and those living with disabilities, in the mainstream economy.

Moreover, Reddy (2016: 468) points out that during the apartheid regime, public procurement contracts were awarded based on price, whereas in the current era, government preference in tender awards is to historically disadvantaged individuals (HDIs).

3.3.8.2.2.1 Preferential Procurement Policy Framework Act No. 5 of 2000 (PPPFA)

Magoro and Brynard (2010: 7) explain the primary objective of the procurement policy is to ensure a process by government in awarding contracts that is fair, equitable, transparent, and competitive, as well as cost effective; with HDIs given preference in awarding government projects, to address past injustice caused by the apartheid regime. Nkwe, Singh and Karodia (2015: 97) contend the PPPFA provides guidance on the categories of preferences in public sector contract allocation, along with protection, or development of persons disadvantaged by unfair discrimination. The authors further state the PPPFA gives effect to Section 217 (3) of the Constitution of the Republic of SA, providing the framework for implementation of the procurement policy as mentioned in Section 217 (2). The National Treasury (2004: 23) argues although the PPPFA promotes empowerment of HDIs by allocating preferential points during tendering, the policy has flaws associated with fronting practices through partnership and JV arrangements.

The PPPFA preference point system, as outlined in the PPPFA, is used to adjudicate and evaluate bids or tenders, where scoring is done through the 80/20 preference point system for goods and services that are R500 000.00 inclusive of VAT, and the 90/10 preference point system is used for goods and services above R1 000 000.00 inclusive of VAT (Magoro and Brynard 2010: 5; Nkwe *e. al.* 2015: 97). Furthermore, Reddy (2016: 468) states when government adjudicates tenders, the supplier with the highest points-based preference system score is awarded the tender, with the B-BBEE status level of that supplier also considered. The PPPFA is the vehicle for the South African government to achieve preferential policy objectives, as adopted by Cabinet (National Treasury 2004: 17). Moreover, Hlakudi (2015: 61) argues that for the policy to achieve its intended purpose, the procurement system must be utilised correctly.

There are evident challenges experienced by government in implementing the preferential procurement system including, conflict of interest by tender adjudicating officials, lack of suitable HDIs or black businesses, fronting, and inferior quality of completed works by inexperienced SMEs, as well as unfavourable pricing by SMEs (Reddy 2016: 468). In addition, Magoro and Brynard (2010: 14) identify key factors that hinder the preferential procurement policy implementation, namely, lack of strategy by government to apply the policy, fraud during the adjudication process, insufficient government involvement, and political interference. Hlakudi (2015: 6) discovered challenges relating to the procurement system implementation are due to a lack of top management support by government, fraud and corruption, as well as lack of correlation between the PPPFA and B-BBEEA. Based on the above literature, it is clear the PPPFA in its current form is experiencing challenges that result in the act not being beneficial for the construction SMEs.

3.3.8.2.3 Corporate Income Tax Act No. 58 of 1962

Young *et al.* (2016: 563) maintain the collection of taxes globally, is a critical source of revenue for the provision of social goods and payment of essential services, resulting in economic growth. Twum *et al.* (2020: 222) agree the collection of tax from private individuals and businesses plays a critical role in contributing to the nation's GDP, for both developing and developed countries. Thus, governments worldwide have put interventions in place to ensure full compliance with tax laws (Twum *et al.* 2020: 222). According to the National Treasury (2004: 23), the South African government shall not enter a business transaction with any supplier who does not have a valid tax clearance certificate. Therefore, no contract may be awarded to a business that cannot produce an original or valid tax clearance certificate from the South African Revenue Service (SARS) certifying the taxes of that firm to be in order or that suitable arrangements have been made with SARS (National Treasury 2004: 36).

For young businesses such as construction SMEs that might have financial challenges with tax registration, this might have huge implications on their operations. Nevertheless, over the years the Corporate Income Tax Act (No. 58 of 1962) has resulted in SA achieving continuous positive results in collecting tax among businesses (Scholtz and Gravenorist 2019: 1). However, Fatoki and Garwe

(2010: 730) argue the payment of tax by construction SMEs has a negative impact on their growth. In addition, Smulders and Naidoo (2013: 264) maintain tax compliance places a greater burden on SMEs, as these businesses must pay high tax compliance costs as a percentage of their turnover. In support, Lavic (2022: 94) argues these conditions make it difficult for fragile SMEs to achieve sustainable growth and development.

Based on the above literature, construction SMEs cannot undertake any project unless they are tax complaint and for these firms to be tax complaint, they need to pay high tax costs to the South African government. Therefore, the Corporate Income Tax Act is more likely to have an influence on the construction SME contribution to economic growth.

3.3.8.2.4 National Minimum Wage Act No. 9 of 2018

Strieker and Baruffini (2020: 157) find the National Minimum Wage Act (No. 9 of 2018) can affect business operations in two ways. First, it may alter the optimal combination of business and employee characteristics. Second, when the minimum wage is above business affordability, it will simply reduce jobs (Strieker and Baruffini 2020: 157). However, Mason, Carter and Tagga (2006: 102) found the increase in the minimum wage in October 2013 had a minor impact on UK small businesses, since employees were being paid more than the minimum wage. However, Strieker and Baruffini (2020: 171) found a rise in minimum wage in the Switzerland construction sector will increase the construction costs, should labour productivity remain the same. In addition, the increase in minimum wage costs has resulted in employment reduction in the construction sector. This is in line with Levin-Waldman (2002: 1), who found that when the mandatory minimum wage is higher than what the business can afford, it will lead to the business employing less employees than required (Mason *et al.* 2006: 102).

Mason *et al.* (2006: 102) aver there are differing opinions on the impact of minimum wage regulation on employment, since other studies discovered minimum wage has no impact on employment. According to Jordaan (2019: 1), the national minimum wage of R20 per hour in SA came into effect in January 2019, applicable to all sectors, excluding domestic, farm or forestry employees and employees of the Expanded Public Works Programmes (EPWP). Businesses in

the affected sectors, including the construction sector, are obliged to increase their employee wages to equal or more than the minimum wage of R20 per hour (Jordaan 2019: 1).

Based on these varying views, it can be deduced the National Minimum Wage Act may or may not have any impact on construction SMEs. This is because, when construction SMEs are paying more than the prescribed minimum wage, the wage will not increase the operational costs of construction SMEs. However, should construction SMEs be paying less than the prescribed minimum wage, this wage will increase the operational costs of construction SMEs. Hence, this study will seek to evaluate what the impact of the minimum wage regulation has had on construction SMEs since its implementation.

3.3.8.2.5 Occupational Health and Safety Act No. 85 of 1993 (OHSA)

The purpose of the Occupational Health and Safety Act (No. 85 of 1993) (OHSA) is to ensure the health and safety of employees or any other persons are always maintained in the workplace, protecting them from harm in connection with the use of plants and machinery (Mojapelo and Kok 2017: 55). Esterhuyzen (2019: 34) highlights that all businesses SA, including unregistered companies, are required to comply with the requirements of health and safety legislation. Mojapelo and Kok (2017: 58) aver this legislation is necessary as there are a high number of health and safety incidents in SA, caused by non-compliance of construction business with the OHSA. Esterhuyzen (2019: 38) argues that for construction SMEs to fully comply with OHSA requirements, there is a need for construction SME owners and managers to have in-depth knowledge and a good attitude towards the OHSA. This can be achieved through formal education and training (Esterhuyzen 2019: 38).

Mojapelo and Kok (2017: 54) state that businesses, including construction SMEs, are expected to comply with OHSA directives by implementing sufficient systems that will improve workplace health and safety standards. However, Kent (2013: 1) maintains OHSA requirements are destroying construction SMEs. Furthermore, Esterhuyzen (2019: 36) highlights the failure by small businesses to comply with OHSA directives can lead to penalties and fines.

Based on the above literature, construction SMEs are expected to comply with the OHSA by implementing critical systems, which is possible when construction SME owners/managers acquire the necessary education and training on OHSA requirements. These requirements attract costs associated with ensuring health and safety tendering and on-site compliance that leads to financial loss (Amoah and Mlenzana 2021: 152).

3.3.8.2.6 Broad-Based Black Economic Empowerment Act No. 53 of 2003 (B-BBEE)

The South African government defines Black Economic Empowerment (BEE) as an inclusive and comprehensible socio-economic process that contributes to economic transformation, with the aim of ensuring several black people have a fair chance to participate in the country's economy, while also closing the income inequality gap (DTI 2016a: 15; Nkwe *et al.* 2015: 96). Kruger (2011: 207) states the ANC government introduced BEE with the clear intention of overcoming the economic legacy of apartheid, by means of enlarging participation in the economy, particularly for those who were previously excluded from contributing to the economy.

Reddy (2016: 467) argues many black people could not engage in the formal business in the past, and this resulted in inequalities in income, wealth and skills between race groups. Therefore, B-BBEE was created by the country's DTI as part of the growth strategy through equity and empowerment policies, to restructure the South African economy and enable significant participation of black people, women and underprivileged communities, to ensure their positive contribution to economic growth (Kruger 2011: 208).

The DTI (2016a: 7) highlights that B-BBEE involves the empowerment of all South African black people, including women, youth and those living with disabilities. In support of this, Reddy (2016: 467) highlights the Act was formulated to provide opportunities of empowerment to disadvantaged societies, which consist of all black people, youth, and those living with disabilities. The Codes of Good Practice for BEE outline a comprehensive explanation of the framework and measurement of ownership, including numerous mathematical formulae for the calculation of the

seven individual elements (Table 3.3) used to weight the B-BEEE scoring (Kruger 2011: 211).

Table 3.3: Weightings of generic B-BBEE scorecard

Element	Weighting	Code series reference
Ownership	20 points	100
Management control	10 points	200
Employment equity	15 points	300
Skills development	15 points	400
Preferential procurement	20 points	500
Enterprise development	15 points	600
Socioeconomic development initiatives	5 points	700

Source: Kruger (2011: 211)

Kruger (2011: 211) states that the guide used to measure the enterprise as a contributor, in terms of the generic scorecard, informs its B-BBEE status on the basis of qualification in terms of points scored that includes its B-BBEE recognition level as shown (Table 3.4) below.

Table 3.4: B-BBEE Generic Scorecard

B-BBEE Status	Qualification	B-BBEE recognition level (Percentage)
Level One Contributor	≥100 points on the Generic Scoreboard	135
Level Two Contributor	≥85 but <100 on the Generic Scoreboard	125
Level Three Contributor	≥75 but <85 on the Generic Scoreboard	110
Level Four Contributor	≥65 but <75 on the Generic Scoreboard	100
Level Five Contributor	≥55 but <65 on the Generic Scoreboard	80
Level Six Contributor	≥45 but <55 on the Generic Scoreboard	60
Level Seven Contributor	≥40 but <45 on the Generic Scoreboard	50
Level Eight Contributor	≥30 but <40 on the Generic Scoreboard	10
Non-compliant Contributor	<30 on the Generic Scoreboard	0

Source: Kruger (2011: 211)

BEE legislation classifies SMEs into two categories, namely EMEs, which represent firms with an annual turnover of less than R10 million, and QSEs, which represents firms with an annual turnover range between R10 and R50 million (Pieterse 2015: 1). Pike, Puchert and Chinyamurindi (2018: 1) contend B-BBEE is a major obstacle to the South African SME sector, since SMEs need to be B-BBEE compliant.

Reddy (2016: 467) states for the appropriate measurement of B-BBEE, the criteria used that form part of the standard framework include: active ownership and management of the business by black people; the extent to which the business procures goods and services from companies that are B-BBEE compliant in terms of the code; all initiatives intended to the development of socio-economic linked to black people; and plans aimed at ensuring promotion of access to the economy for black people. According to Pike *et al*. (2018: 2), the B-BBEE in SA has largely affected SMEs, since it requires businesses to place greater importance on investment in black ownership and control.

Challenges relating to compliance with the B-BBEE Act

Anwana (2020: 3) states that while there have been various amendments to the B-BBEE Act over the past 25 years to improve the plight of black people and correct past injustice, judgement by scholars has proven the Act has failed to achieve its primary objectives. According to Reddy (2016: 468), the reason for the minimal success of the B-BBEE Act, is that of the 88 percent black population in SA, only 18 percent is in management positions. This makes it difficult for businesses to source black individuals to fill management position in South African organisations. The author adds another reason contributing to the lack of B-BBEE success, is the lack of information provided about the Act by government (Reddy 2016: 468).

A further major challenge that has impaired the success of the B-BBEE is fronting (Emuze and Adlam 2013: 131; Reddy 2016: 468; Anwana 2020: 3), which according to Reddy (2016: 468), occurs when businesses pretend to be complaint with B-BBEE priorities to obtain contracts from government. Anwana (2020: 2) highlights that critics of the B-BBEE Act believe it has created ‘black elites’ and advanced acts of corruption in the business space. Reddy (2016: 468) points out failure to effectively implement the B-BBEE is due to the preference in companies

to conduct business with well established businesses, rather than small enterprises. In SA, the many vacancies for skilled labour cannot be filled by the many unemployed individuals who do not possess sufficient skills to fill these vacancies (Reddy 2016: 468). This also hinders companies from implement B-BBEE through employment of skilled, previously disadvantaged races.

Implications of B-BBEE Act on construction SMEs

The CIDB (2021: 2) highlights to enhance transformation in the construction industry, readiness and preparedness of black-contractors is key. To achieve this, any transformation strategy must ensure increased participation of the black-sector in both public and private sector spend, by means of effective policies and regulations (Emuze and Adlam 2013: 131; Kruger 2011: 209). According to Pike *et al.* (2018: 2), the South African government has introduced B-BBEE as a measure for empowerment of black people and transformation of different sectors including construction sector. Pike *et al*. (2018: 1) state B-BBEE has been in the spotlight in SA since it is an obstacle to construction SMEs as a result B-BBEE is a leading topic for government.

In criticising B-BBEE, Pike *et al*. (2018: 1) argues the main challenge with the B-BBEE is the requirement for the SMEs to be complaint. Emuze and Adlam (2013: 139) believe B-BBEE condones unethical issues in the South African construction industry, which has seen an increase in questionable tendering practices in the country. In addition, Pike *et al*. (2018:1) highlight the negative side of B-BBEE is that it presents administrative costs, and SMEs that implement B-BBEE compliance practices must present certification, prior to being awarded a bid for government projects.

Steyn (2015) and Emuze and Adlam (2013: 139) established the biggest challenge for government is fronting; used as a solution for B-BBEE compliance. Emuze and Adlam (2013: 131) state that while companies may be willing to transform, they struggle to find a competent black candidate with sufficient skill and experience of executive management structures. The authors claim those candidates with adequate skill and experiences are limited in number, and come at high costs to the company, thus straining company remuneration bill.

Emuze and Adlam (2013: 138) are of the view the majority businesses do not have essential skills to coach and grow emerging black firms, which presents a challenge, particularly in the construction sector. Kruger (2011: 212) argues B-BBEE does not benefit emerging entrepreneurs but creates a small class of unskilled and unproductive black individuals, who have a relationship with ANC politicians who have become strong allies of the economic oligarchy.

However, there are great benefits associated with B-BBEE that include B-BBEE enabling black construction SMEs to stand a better chance of winning a tender with bigger organisations, since government is encouraging those to do business with B-BBEE complaint SMEs (Cenfed 2016). Pike *et al*. (2018: 1) discovered the positive contribution of the B-BBEE strategy resolved inequalities of the past caused by apartheid, through increasing opportunities for black individuals to acquire ownership and control of new and existing businesses. Reddy (2008: 12) highlights that B-BBEE fosters collaboration of small construction businesses with larger firms through JVs that facilitate the growth of construction SMEs.

Based on the above literature, while B-BBEE is good for black-owned construction SMEs, it has unfavourable consequences for white-owned construction businesses. This is because construction SMEs that are white-owned and are not compliant with the B-BBEE codes do not stand a chance to receive a contract from any government entities. Therefore, the question remains as to whether the B-BBEE act supports construction SMEs in SA. The next section presents the conceptual framework, based on literature reviewed in the study.

3.4 CONCEPTUAL FRAMEWORK BASED ON LITERATURE REVIEW

The following figure 3.2 demonstrates variables that have passed through the above literature review.

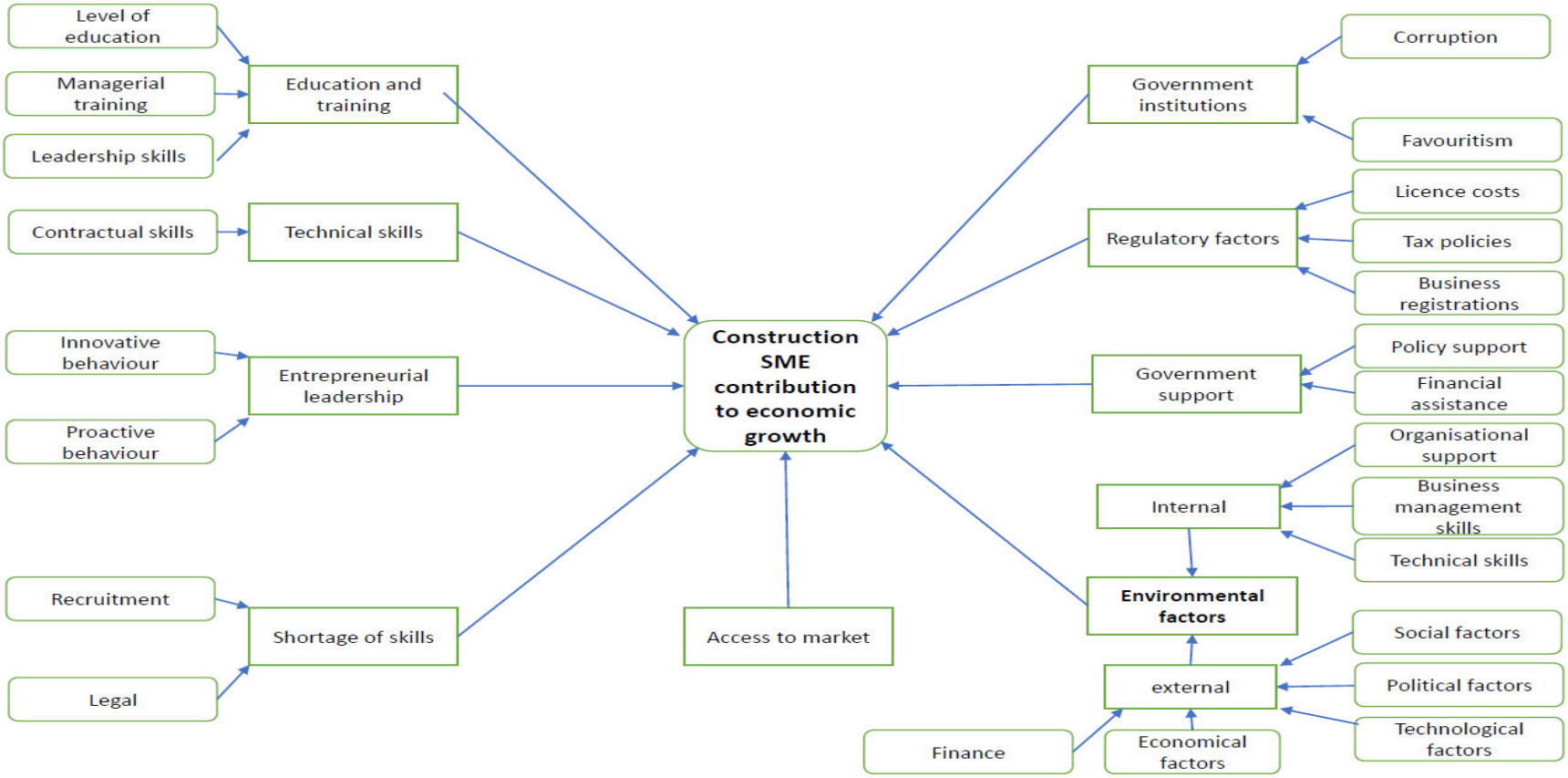

Figure 3.2: Conceptual framework based on literature review

Source: Developed by researcher

3.5 CHAPTER SUMMARY

The aim of this chapter was to determine the environmental factors that influence the performance of construction SMEs. The environmental factors were spilt into internal and external factors. Internal factors influencing construction SMEs were reviewed, which include lack of technical and managerial skills, inadequate business management skills, skills shortages within construction SMEs, and insufficient appropriate entrepreneurial skills, as well as deficient marketing skills, business networking, and education and training, along with the lack of leadership in construction SMEs. Furthermore, external factors influencing construction SMEs include lack of finance, global competition within the South African construction SMEs within local construction SMEs, and high prices of materials, along with political, economic, social, and technology, as well as legal factors. Therefore, the literature gathered and outlined in this chapter will be used to recommend tactics and strategies that can be utilised by SMEs to gain a competitive edge and improve business operations, to improve their performance. In the next chapter, the research methodology and design employed to conduct the empirical study will be discussed.

CHAPTER FOUR: RESEARCH METHODOLOGY AND DESIGN

4.1 INTRODUCTION

The primary purpose of this chapter is to discuss in detail how the data of the study were collected and analysed. This chapter addresses the research, questionnaire and interview schedule designs, different types of analysis conducted on the data, and the issue of validity and reliability of the data for the methods chosen. In addition, potential errors are highlighted, as well as how these were addressed by the researcher. The research methodology entails a discussion that evaluates the two main research approaches and substantiate the reason why a mixed methodology was adopted for this study.

The quantitative stage of the research utilised a survey questionnaire for data collection. The data were collected from construction SME owners/managers on factors influencing the contribution of Eastern Cape construction SMEs to the economy. In the qualitative stage of the study, semi-structured interviews were employed to more closely scrutinise factors identified by the quantitative study. The aim of these investigations was to assist the researcher in developing a prototype model that will assist construction SMEs to contribute to economic growth.

The following primary and secondary research objectives were addressed through an extensive literature review, as part of the mixed-methods (quantitative and qualitative) approach used in this study:

Primary objective: To identify factors influencing the contribution of construction sector SMEs to economic growth in the Eastern Cape province in SA.

Secondary objectives

Objective 1: To establish factors that influences the construction SMEs' contribution to economic growth in the Eastern Cape province;

Objective 2: To examine the extent to which construction SMEs' contribution aligns with the government economic growth policy in the Eastern Cape province;

Objective 3: To determine characteristics of construction SMEs affecting their contribution to economic growth in the Eastern Cape province;

Objective 4: To explore how government regulations and laws influence the construction SMEs' contribution to economic growth in the Eastern Cape province;

Objective 5: To suggest a prototype model for construction sector SMEs' contribution to economic growth.

4.2 RESEARCH DESIGN

Kumar (2011: 96) defines research design as the development of a detailed plan and logistical arrangements within which research is conducted for the collection and analysis of data. This echoes Kothari (2004: 31), who described the research design as the conceptual structure within which a research study is conducted, which establishes a blueprint for data collection, measurement, and analysis. According to Creswell and Plano Cark (2007: 58, cited in Boru 2018: 1), research design is a method adopted by the study for collecting, analysing, interpreting, and reporting data. Kumar (2011: 96) states the research design should provide critical information on who will form part of the population, define the selected sample frame, outline the data collection method, and address ethically related issues.

Snyder (2019: 334) indicates several methodological approaches used for conducting research, namely, qualitative, quantitative and mixed-methods. According to Starr (2014: 239), qualitative research utilises data expressed in words, while Luther (2017: 268) indicates qualitative research allows a researcher to collect unstructured data by means of interviews, participation, notes and reflections, to fully understand a complete picture of the problem being investigated. Kothari (2004: 3) argues that qualitative research is more interested in the qualitative phenomenon.

Although quantitative research is a primary tool to gather data on empirical relationships, Stockemer (2019: 9) maintains it is not suitable to explain the constituents or casual mechanisms behind a statistical relationship. Creswell (2009: 29) highlights that quantitative research concerns the numeric description of trends, attitudes, or opinions of the targeted sample of the population, with the primary purpose of generalising the sample to the population. Furthermore, Boru (2018: 8) argues one of the disadvantages of a quantitative design, is it does not offer an opportunity for the researcher to obtain a deep explanation regarding the problem being investigated. Therefore, quantitative empirical research needs

support from the qualitative to acquire a broader view of the research problem (Boru 2018: 8). Hence, mixing qualitative and quantitative research design was introduced for optimum data collection.

Leech and Onwuegbuzie (2009: 267) describe mixed-methods as a research strategy that encompasses collecting, analysing, and interpreting quantitative and qualitative data in one research or in a series of studies that seek to examine the same fundamental phenomenon. The mixed-methods research design is highly recognised for its use of an integrated approach of quantitative and qualitative data collection (Creswell 2014: 274; Almalki 2016: 288). There is agreement among authors that a mixed-methods approach provides the researcher with a deep understanding to address questions that cannot be answered by qualitative or quantitative methods on their own (Johnson and Schoonenboom 2017: 108; Boru 2018: 9; Sekaran and Bougie 2016: 103). In addition, the approach offers the researcher a complete picture by noting trends (Almalki 2016: 291) and generalisations, as well as comprehensive knowledge and understanding of participant perceptions (Boru 2018: 9).

Berman (2017: 7) discovered that by mixing both qualitative and quantitative research, the researcher gains tools to identify aspects of a phenomenon more accurately and provides a more complete and comprehensive understanding of the research problem. The underlying assumption is that the mixed-methods pragmatist research paradigm takes full benefit of the strengths of both qualitative and quantitative through an integrated approach; a valuable and appropriate design and methodology for this study (Creswell 2014: 266).

The primary aim of mixed-methods research, through integrating qualitative and quantitative components, is to expand and strengthen the study conclusion (Schoonenboom and Johnson 2017: 110). This supports Sekaran and Bougie (2016: 103), who maintain the mixed-methods approach incorporates inductive and deductive thinking, using different types of data. Creswell (2014: 266) posits that a mixed-methods strategy is selected because of its advantage in drawing on both qualitative and quantitative research and minimising the limitations of both approaches. Tashakkori and Teddlie (2003, cited in Saunders *et al.* 2009: 153) are

of the view that multiple methods offer the researcher better opportunities to address the research questions.

The research questions and the phenomenon of the problem investigated by this study were the reasons for the selected method. Despite there being different research design styles appropriate to different problems, the researcher believes for this study the most suitable and appropriate style was a mixed-methods design, based on the descriptive nature of this research. According to Creswell and Plano-Clark (2011: 154), there are different types of mixed-methods, listed below:

- **Convergent parallel design:** The timing to apply the quantitative and qualitative is done concurrently.
- **Explanatory sequential design:** Data are collected in two phases. The first phase starts with collecting and analysing quantitative data, afterwards, the second phase follows with collection and analysis of qualitative data. It is important to note qualitative results are built on the first phase of the quantitative results.
- **Exploratory sequential design:** In this design, the first phase starts with gathering and analysing qualitative data. The second phase focuses on the collection and interpreting of quantitative data. Here, quantitative results are built on qualitative results.
- **Embedded design:** Collects and analyses both qualitative and quantitative data at the same time, with one type larger than the other.
- **Transformative design:** This design is shaped by the researcher to be aligned with the transformative theoretical framework of the quantitative and qualitative data analysis.
- **Multiphase design:** This design merges both sequential and concurrent strands, collected during a prolonged period, with the aim to address project objectives.

For this study - to design a strategic prototype model for construction SMEs in the Eastern Cape to contribute to economic growth - a mixed-methods, explanatory sequential design was adopted, comprising two phases for gathering and analyses of data.

There are three commonly recognised research paradigms namely, positivism, constructivism, transformative and pragmatism (Hall 2013: 2). This study adopted a mixed-methods pragmatism research paradigm, in which both qualitative and quantitative techniques, approaches, and methods were used.

4.2.1 Mixed-methods explanatory sequential design

The primary aim of this study was to identify factors influencing the contribution of construction SMEs to economic growth and recommend an appropriate model that will enable these firms to contribute positively to economic growth. Therefore, the explanatory, sequential, mixed-methods design in particular, using fully mixed sequential dominant status design (Leech and Onwuegbuzie 2009: 271), was considered the best method for this study (Creswell 2014: 274), since it takes full advantage of the strengths of both the qualitative and quantitative methods (Creswell 2014: 266), where quantitative data were collected first, followed by the collection of qualitative data. In support, Guest and Fleming (2014: 586) state explanatory sequential design is a two-phase approach that begins with the gathering and analysis of quantitative data, followed by the collection and analysis of qualitative data, to justify the initial quantitative results. This process is illustrated (Figure 4.1) below.

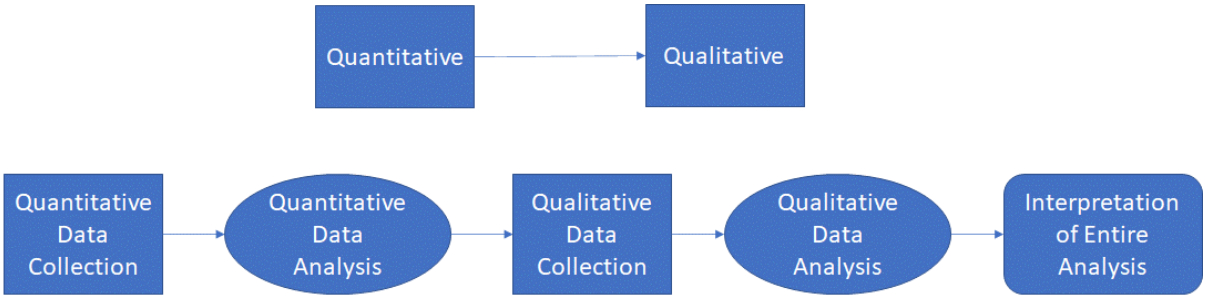

Figure 4.1: Explanatory sequential design

Source: Creswell (2009:194)

The explanatory sequential mixed-methods approach also enhances the chances of developing a better measuring instrument for the study (Creswell 2014: 282), since the data collected in each phase are used in the planning of the following phase (Leech and Onwuegbuzie 2009: 272). According to Fetters, Curry and Creswell (2013: 2135), integration of the two data forms result in the quantitative

enquiry informing the development and refinement of the qualitative instruments or generating hypotheses in the quantitative component for testing in the qualitative instrument.

Schoonenboom and Johnson (2017: 108) explain, for the researcher to obtain a broad purpose of breadth and depth of understanding and corroboration, mixed-methods research must be utilised through integration of qualitative and quantitative viewpoints, data collection and analysis. The authors further argue in all research studies the use of mixed-methods design yields the results of addressing the research questions (Schoonenboom and Johnson 2017: 110). This supports the viewpoint expressed by Tashakkori and Teddlie (2003, cited in Saunders *et al.* 2009: 153) that the use of multiple diverse methods provides better opportunity for the researcher to answer the research questions and allows the researcher to better evaluate the extent to which the research findings can be trusted, and inferences made from them. Therefore, using mixed-methods research and adopting explanatory sequential design deepens the knowledge and validity of this study (Schoonenboom and Johnson 2017: 110). For this study, the quantitative data are supported by the qualitative data to obtain more in-depth knowledge on the factors influencing the contribution of construction SMEs to economic growth.

Saunders *et al*. (2009: 147) established the main reason in using mixed-methods design, is to achieve triangulation. In support, Creswell (2014: 289) states the purpose of mixed-methods studies is to attain convergence (triangulation), examining different facets of a phenomenon, using the methods sequentially, and learning paradox and fresh perspectives, as well as adding breadth and scope to a project. Saunders *et al*. (2009: 153) highlight better comprehension of the connections between theory and empirical findings is achieved through triangulation, resulting in the development of new theory.

4.3 STUDY AREA

Prior to 1993, the Eastern Cape province was part of the Cape Province. Situated in the south-central side of SA, the Eastern Cape province has a population of approximately 6.71 million people; the fourth largest population in SA, with the majority being youth under the age of 35 years (StatsSA 2019: 1). The Eastern

Cape province contains the biggest volume of rural areas and consists of two metropolitan municipalities namely, Buffalo City and Nelson Mandela, and six district municipalities namely; Alfred Nzo, Amatole, Sarah Baartman, and Chris Hani, as well as OR Tambo and Joe Gqabi. The map below (Figure 4.2) shows the two metropolitan and six district municipalities.

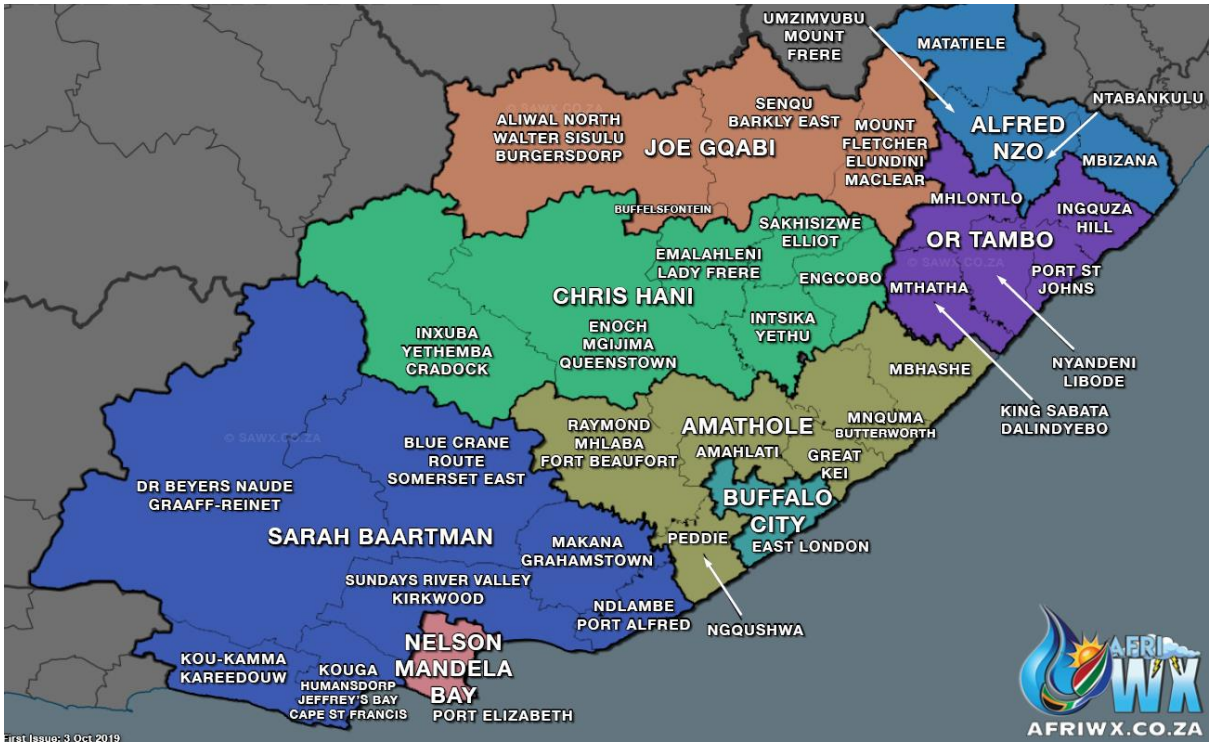

Figure 4.2: Map of the Eastern Cape Province

Source: Provincial and District Municipality Maps (24.09.2020)

The Eastern Cape province has 42 999 registered construction SMEs that conduct business in the province (ECSCC 2021: 10). The researcher is confident these construction businesses could and would offer an in-depth understanding and relevant points on factors influencing the contribution of SMEs to economic growth. The study focused on construction SMEs registered with the CIDB and doing business in the following types of construction industry, namely general building, civil, mechanical, and electrical engineering, as well as specialised works. The study was designed to gather knowledge from owners or managers of construction SMEs on critical factors influencing the economic contribution of these businesses in the Eastern Cape. The next section discusses the data collection and analysis procedures applied in the quantitative and qualitative phases.

The business participants representing companies in the construction firms are SME owners or managers, invited to participate in the study. Gupta and Gupta (2011: 32) define a population as the total number of items or units in any field of research. Strydom, Jooste and Cant (2003: 160) suggest the target population could, at times, be too large to manage in the study process, which may lead to the sample population considered as representative of the overall population. Furthermore, Saunders *et al*. (2009: 156) describe a population as the complete set of cases from which a sample is taken. Kumar (2011: 65) adds that the study population is from whom the required information is obtained to find answers to the research questions.

4.4 DATA COLLECTION STRATEGIES

As defined by Kumar (2011: 132), data collection is a technique used to gather information regarding the problem or phenomenon under study. Saunders *et al.* (2009: 232) argue the aim of data collection is to understand what is happening about the problem being investigated, in order that logical generalisations can be made. There are two unique data collection methods, namely quantitative and qualitative (Starr 2014: 240). The researcher adopted an explanatory sequential mixed-methods design that includes both quantitative and qualitative methods for data collection in two phases; phase one being quantitative data collection followed by the qualitative data collection. Creswell (2014: 274) warns this design requires adequate planning from the researcher to identify what quantitative results to follow up on as part of the qualitative study. Hence, the researcher took time to study the qualitative results to identify critical knowledge required to answer the study objectives.

The primary study data were gathered using a self-administered survey questionnaire and semi-structured interviews, with secondary data collected using a literature review. The theoretical review of factors influencing the economic contribution of construction SMEs was conducted, including identification of variables to generate the survey questionnaire. SME owners or managers of businesses forming part of the construction sector participated in the study. The next section details the primary and secondary data collection methods used for the study.

4.4.1 Primary data collection

Primary data are the first-hand information collected to achieve specific research goals addressing the problem at hand, using identified methodologies that fit the research problem best (Hox and Boeije 2005: 593). Based on the primary data, the variables for the study were identified that enabled the researcher to use these variables to obtain valid results. The validity of the results is critical for this study.

The sources of primary data were construction SME owners or managers who operate in the Eastern Cape province. The primary data for the study were collected by means of a self-administered survey questionnaire that consisted of closed-ended questions, and a semi-structured interview. A literature review of factors influencing the contribution of construction SMEs was conducted to formulate the study questionnaire.

4.4.2 Secondary data collection

Secondary data can be described as data material created and published by other authors made available for reuse by the research community (Tripathy 2013: 1478; Hox and Boeije 2005: 593).

For this study, the main sources for secondary data included academic journal articles, technical reports and textbooks. The literature review chapter for this research was developed from the secondary data used to steer the study direction.

4.4.3 Data collection instruments: Quantitative phase questionnaire and pilot study

According to Stockemer (2019: 6), data collection in any study should be defined by the researcher, since collected data should be of high quality to achieve the study objectives. A survey is a measurement instrument, in the form of a questionnaire, which is used to collect data on attitudes, feelings, experiences, or opinion of a population, by studying the sample of that population (Hox and Boeije 2005: 594). In addition, survey research contains cross-sectional and longitudinal research using questionnaires or structured interviews for data gathering for the representation of a selected population (Creswell 2014: 29).

Kumar (2011: 133) cautions that when the researcher uses a questionnaire to collect data, it must be ensured respondents understand the purpose and

relevance of the study. To achieve this, the researcher submitted a letter of information, provided to the respondents together with the survey questionnaire. Saunders *et al*. (2009: 357) argue the construction of a questionnaire is difficult, since it is aimed at answering the research questions. Hence, when planning a questionnaire, Brace (2018: 56) advocates the researcher must know the exact questions to be asked, and how to gauge their value for the study. Therefore, a survey questionnaire enables the researcher to achieve objectives when the correct questions are asked. Pandey, Pandey, and Miller (2017: 13) state a survey is a most preferred instrument, as it uses computer-aided statistics programmes for data processing. Thus, a survey questionnaire is a suitable method for data collection for large participant numbers.

In this study, primary data were collected using a survey to question respondents via online google forms, email, in-person or through a self-administered questionnaire. This method was deemed suitable for this study, since it is convenient for respondents with internet, as well as those without internet access. Stockemer (2019: 64) argues the use of an online questionnaire compromises full representativity, since not everybody has access to the internet. The survey questionnaire was administered by the researcher on the construction SMEs, to gather data on their opinion of factors influencing the contribution of construction SMEs to economic growth in the Eastern Cape. The next section discusses the questionnaire design.

4.4.3.1 Design of the questionnaire

According to Signh *et al.* (2021: 1292), designing a questionnaire is not an easy task, as there are key factors that need to be considered. For this study, to design a suitable questionnaire, the researcher took guidance from Brace (2018: 12), employing the following principles:

- Questions must not be ambiguous.
- Proper order of questions.
- Adequate response codes.
- Correct questions to be asked.

This supports the views of Marczyk, DeMatteo and Festinger (2005: 70), who state the above-mentioned principles will eliminate subtle errors that may occur during data collection. Hence, the researcher is required to design a questionnaire effectively that assist respondents to perform their duty successfully (Brace 2018: 56).

The Likert scale is a 5-point, bipolar response scale, with the intentions of assessing respondent agreement/disagreement on a 5-point scale (Singh *et al.* 2021: 1292). In addition, Kumar (2011: 162) points out that a Likert scale assists the researcher to rate a group of respondents in descending or ascending order, pertaining to their attitudes on issues being investigated. A questionnaire that uses a Likert scale as part of the data collection instrument was deemed suitable for this study (Appendix 5). The compilation of the questionnaire was achieved by means of reviewing relevant literature; specifically challenges faced by construction SMEs in SA, which include environmental, internal and external factors.

The questionnaire was spilt into sections A and B, where section A comprised the demographic information and section B contained in-depth questions/statements on the study variables. Section A was aimed at understating the population formulation and draw statistical conclusions that could help comprehend and answer the study hypotheses and objectives. For example, through demographic information, on the one hand, the researcher identified whether the level of CIDB grading of construction SMEs influences their contribution. On the other hand, section B was aligned to the study aim and research objectives. Survey responses were recorded anonymously and coded in Excel.

The list of questions was designed to gain the most relevant facts pertaining to factors influencing the contribution of construction SMEs to economic growth in the Eastern Cape. Theoretical literature by local and international scholars on the area of study were reviewed and used to design the online survey questions, with space provided to record respondent comments and opinions.

Questionnaire sample

SECTION A: BIOGRAPHICAL INFORMATION

Please mark with a cross (X) only ONE option in the questions below.

1. Please indicate your gender

1a.	Male.	
1b.	Female.	
1c.	Other, please specify.	

2. Please indicate your age group

2a.	18 - 25 years.	
2b.	26-45 years.	
2c.	46-65 years.	
2d.	Other, Please specify	

3. Please indicate your highest qualification

3a.	Secondary education.	
3b.	Matriculation.	
3c.	Certificate.	
3d.	National diploma.	
3e.	Post Graduate diploma.	
3f.	Bachelor of Technology.	
3g.	Post Graduate Degree.	
3h.	Honours Degree.	
3i.	Master's Degree.	
3j.	Doctor of Philosophy.	
3k.	Other, please specify	

4. Please indicate the type of ownership.

4a.	Sole proprietor.	
4b.	Partnership.	
4c.	Private Company.	
4d.	Public Company.	
4e.	Close Corporation.	
4f.	Other, please specify	

SECTION B: FACTORS INFLUENCING THE SMES CONSTRUCTION FIRMS' CONTRIBUTION TO ECONOMIC GROWTH IN THE EASTERN CAPE PROVINCE

Please indicate your response to the following statements, regarding the factors that influence the SME construction firms' contribution to economic growth in the Eastern Cape Province.
Select an option that is most appropriate to you from strongly agree, agree, neutral, disagree to strongly disagree.

1 = Strongly Agree
2 = Agree
3 = Neutral
4 = Disagree
5 = Strongly disagree

Please mark with a cross (X) for each option that truly reflects your response to the statements below:

5. **Please indicate to what extent the following factors in terms of <u>education and training</u> affect the performance of construction SMEs:**

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
11a.	Level of education improve the leadership skills of construction SMEs entrepreneurs.	☐	☐	☐	☐	☐
11b.	Entrepreneurial training will improve the leadership skills of construction SMEs entrepreneurs.	☐	☐	☐	☐	☐
11c.	Level of education will improve the ability of construction SMEs entrepreneurs to be innovative.	☐	☐	☐	☐	☐

6. **Please indicate to what extent the following factors in terms of <u>governmental support</u> affect the construction SMEs' contribution to economic growth:**

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
12a.	Lack of expertise amongst government officials affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12b.	Lack of government policy support for construction SMEs affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12c.	Lack of government political will to support construction SMEs affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12d.	Lack of government day to day guidelines for SMEs construction firms affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12e.	Lack of technical skills workshop or training provided by government institutions affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12f.	Lack of government financial assistance for construction SMEs affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12g.	Lack of government incubator programme implementation for construction SMEs affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12h.	Lack of government budget for construction SME projects affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12i.	Incapacity to spend funds received for construction SME projects affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐

4.4.4 Pilot study: Questionnaire, findings and further development

A pilot study is a replica and rehearsal of the main survey conducted by researchers to highlight the weaknesses of the questionnaire and survey technique (Kothari 2004: 31). The researcher conducted a pilot study on a small

scale prior to the main study. Scholars are of the same opinion that prior to the questionnaire being used, it should be pilot tested first for the refinement of the questionnaire (Saunders *et al*. 2009: 386; De Vaus 2014: 146; Little 2013: 666). A pilot study is conducted to eliminate ambiguity and confusion in the research instrument (Gupta and Gupta 2011: 23). In addition, pilot testing enables the researcher to obtain assessment of questions' validity and the likely reliability of the data to be collected (Saunders *et al*. 2009: 386). Hence, De Vaus (2014: 62) points out it is not worth researchers taking a risk, they should pilot test first.

Thirty construction SME owners and managers within the construction sector across the Eastern Cape were chosen for the pilot study of the quantitative study. These construction firms were randomly selected in the Eastern Cape, based on the quota characteristics. The researcher also consulted with research experts in the field to develop the quality of the instrument prior to collection of the main primary data.

The researcher administered a questionnaire that consists of two sections. The pilot questionnaire had the following number of items per section as shown (Table 4.1) below:

Table 4.1: Items on pilot questionnaire

Section	Themes	No. of items
A	Demographic information	10
B	Factors that influence construction SMEs' contribution to economic growth	14
Total number of items		**24**

The pilot study was administered to 30 respondents who did not form part of the main study. When conducting the pilot study, the researcher received six on-line survey questionnaires and collected 24 manually completed survey questionnaires from SME owners or managers. The researcher had planned for the pilot study data collection to take two weeks, which was not achieved due to business commitments of respondents. Consequently, data collection of the pilot study took

one month. Since the pilot study was conducted during Covid-19, strict regulations were adhered to throughout the pilot study data collection phase, with Covid-19 protocols always observed.

Based on the pilot study, the researcher observed that from the manually collected survey, some participants did not complete the following question under Section A: Biographical Information:

5. In which type of construction business would you classify your business?

The researcher believes the reason some respondents skipped the question is because this was an open-ended question, with no options given for the participants to select from and it was, therefore, easy to miss this question.

For the main study, the researcher made this a closed-ended question, with options for respondents to select from with regard to the class of business their construction SME falls under, as per the CIDB classes of construction work.

The pilot study of the survey thus resulted in the following improvements to the questionnaire of the main study on Question 5 of Section A: Biographical Information:

5. Please indicate which type of construction business you would classify your business as.

5a. General building (GB)
5b. Civil Engineering (CE)
5c. Mechanical engineering (ME)
5d. Electrical engineering (EB)
5e. Electrical engineering (EP)
5f. Specialist works (SB to SQ)
5g. Other, please specify

4.4.5 Data collection instruments: Qualitative phase

In any research, selection of the data collection instrument is a critical element that requires proper attention (Bastos *et al.* 2014: 918). De Vaus (2014: 5) argues the researcher must distinguish between research techniques that yield structured and unstructured datasets during the data collection stage. For this study, a qualitative data collection instrument was developed, based on the findings from the

quantitative phase of this study and the literature reviewed (Creswell and Plano Clark 2011: 47). This self-designed data collection tool was created to gather qualitative data based on the research objectives. In total, 12 semi-structured interviews were held with eight construction owners, and four construction SME managers. The researcher contacted interviewees both telephonically and/or by email to set up the interview date, time and location. A letter of information (Appendix 3) and letter of consent (Appendix 4) were provided to each respondent to complete and sign. The interview proceedings were recorded using a digital voice recorder and were transcribed by the researcher, with between 40–50 minutes used to complete each interview.

4.4.5.1 Design of the interview instruments

As mentioned above, for the purpose of this study, the quantitative phase results were used to develop the research instrument for the qualitative phase, to completement the quantitative phase findings and achieve research objectives. Semi-structured interview was used in this study as it enables detailed understanding of the explored phenomenon. Kallio *et al.* (2016: 2959) advise that semi-structured interviews are easy to collect and offer a researcher the opportunity to gain a rich understanding of the study phenomenon.

An interview schedule of questions was compiled after conducting data analysis of the quantitative phase. The interview schedule drafted had five open-ended questions that targeted construction SME owners and managers, which measured the following themes:

- Critical aspects found to characterise construction SMEs in the Eastern Cape.
- Assessment whether government economic developmental growth policies in the Eastern Cape support construction SMEs.
- Factors that influence business performance.
- Suggestions by construction SMEs on how government, policy makers and private sector can improve the construction SME situation.
- Suggestions by construction SMEs on aspects for the integrated model to enhance support of construction SMEs.

The research instrument was emailed to participants who had indicated in their survey questionnaire responses for the quantitative phase of the study that they

were also willing to participate in the interviews during the qualitative phase of the study.

4.4.5.2 Pilot study: Interview, findings and further development

According to Kothari (2004: 38), it is critical to pre-test the data collection tool prior to its use for data collection in the main study. The researcher applied this advice by conducting a pilot study on a small, before collecting data for the main study. The purpose of the pilot study was to determine whether there were any difficult or unforeseen challenges with the instrument and establish the accuracy and suitability of the instrument (Saunders *et al.* 2009: 386). Furthermore, pilot testing was conducted to determine the content validity scores of the instrument and improve questions to achieve research objectives (Creswell 2014: 207).

The pilot study collected data from three interviewees. All participants who took part in the pilot study were not included in the main study. Their reflections and views were only used to modify and rectify mistakes on the instrument and changes prior undertaking the main study (Babbie 2010: 406; Creswell 2014: 207). Thereafter, the measuring instrument was approved by the DUT IREC and, subsequently, administered for the main study.

4.4.6 Ethics approval and issues: Main Study

Research ethics formed a crucial part throughout the different stages of the study, from gaining access and data collection, to data storage, analyses and writing up a report. Saunders *et al.* (2009: 183) state ethical concerns arise when a researcher plans a study, seeks access to companies and individuals, collects, analyses and reports the data. As part of ethical clearance, the gatekeeper's letter, letter of information and consent, survey questionnaire and interview schedule were submitted for approval to the research ethics committee. Respondent consent was obtained, with the anonymity of those participating maintained, as indicated in the letter of information (De Vaus 2014: 74).

The researcher ensured ethical clearance was obtained from the Durban University of Technology (DUT) (Appendix 1) prior the research instruments being administered for data collection. Furthermore, a gatekeeper's letter was supplied to the owners of construction SMEs (Appendix 3), aimed at providing assurance to the business' owners regarding confidentiality and anonymity of information

supplied by participants. The researcher took advice from Babbie (2016: 70) to ensure assurance was given that the research is conducted in an ethical manner to create confidence in, and foster co-operation of construction SMEs. Based on the above, it is safe to state the ethical clearance requirements were met by this study.

In addition, respondents were informed all confidential data would be managed in terms of DUT policy and deleted after five years. The researcher took proper measures to safeguard all confidential data, where hard copies of collected data will be stored safely in a filing cabinet and kept in a locked office. All electronic data is encrypted, and password protected.

4.4.7 Study population

According to Gupta and Gupta (2011: 42), sampling is a process of choosing a sufficient portion from the population as the basis of estimating certain information of the entire population. For the researcher to obtain data, it was critical to focus on the representative sample of the target population, since it was not possible to contact every unit of the target population. The study population consisted of construction SMEs operating within the Province of the Eastern Cape. The construction SMEs that form part of this study were from the following five types of construction industry businesses, namely general building, civil, mechanical, and electrical, as well as specialised works. The study population for this study was as follows:

- Quantitative phase

Survey: The Eastern Cape is reported to have 42 999 registered construction SMEs. The researcher obtained a total number of 303 responses from respondents who completed the questionnaire.

- Qualitative phase

Semi-structured interviews: The researcher interviewed a total number of 12 participants for the qualitative phase of the study who were construction SME owners and/or managers.

4.4.8 Sampling

Sampling is the process of selecting a portion that represents the entire population being examined by the researcher (Stockemer 2019: 58). Conroy (2021: 4) maintains sample size is a crucial part of the research and has ethical implications. Since it is impractical to study the entire population, various scholars (agree that a faction of the population called a sample must be selected to from part in the study (Conroy 2021: 4; Greener 2008: 47; Etikan, Musa and Alkassim 2016: 2; Saunders *et al*. 2009: 210).

The justification for using a sample, according to Saunders *et al*. (2009: 210), is that it reduces the amount of data to be collected by considering only data from a sub-group, as opposed to the whole population. Kumar (2011: 42) argues when a sample is selected correctly, it will provide a sufficiently high degree of probability and a true reflection of the sampling population being studied.

Creswell (2014: 158) and Kothari (2004: 58) identify two main kinds of sampling, namely probability and non-probability sampling. For a probability sampling method, every item of the population has an equal opportunity of inclusion in the sample; whereas a non-probability sampling method does not guarantee every item of the population has an equal opportunity to be included in the sample (Kothari 2004: 60). A non-probability quota sampling has been used for the surveys, which is the quantitative aspect of the study, with a purposive non-probability sampling used for the semi-structured interviews as the qualitative aspect of the study.

4.4.8.1 Quantitative phase: sampling of respondents

A convenience sampling method was used to select participants. This is a non-probability sampling where participants of the target population meet a specific criterion that includes geographic proximity, accessibility at a particular time, or who shows willingness to participate in the research (Dörnyei 2007: 98). Although convenience sampling has certain disadvantages (Singh *et al.* 2021: 1292), it was deemed suitable for this study. The reason for using a convenience sampling technique, is that it is low in terms of cost and cases are obtained easily (Kothari 2004: 15). Therefore, convenience sampling guarantees that fieldwork would be

done quickly. The researcher applied the following inclusion and exclusion criteria in selecting participants:

Inclusion criteria:

- Construction SME owners and managers 18 years or older.
- Construction SMEs in all types of construction industry.
- Construction SMEs conducting business in the Eastern Cape province

Exclusion criteria:

- Construction SMEs not doing business in the Eastern Cape province.
- Large construction businesses

4.4.8.1.1 Gaining access to survey respondents

In order to gain access to the respondents, emails were sent to various SMEs, enclosing the gatekeeper's letters, as well as the letter of information and consent. An email was sent enclosing a copy of the survey questionnaire and a copy of the interview schedule, inviting potential respondents to participate that included a URL link where the survey questionnaire could be completed online (De Vaus 2014: 180).

As a means to maximise the response rate to the internet surveys, letters were first emailed to each of the identified businesses' email addresses. Most of the business owners replied granting permission to the researcher. In addition, business owners informed the researcher to correspond with each of the managers individually and request their permission and obtain their consent to participate in the research. Subsequently, the researcher sent an invitation by means of a cover letter to the SME owners/managers to participate in an online survey. The cover letter was also intended to obtain the relevant consent from the selected parties. The cover letter was sent to the identified sample of the construction SMEs selected in the Eastern Cape province.

4.4.8.2 Qualitative sampling of participants

For the qualitative aspect of the study, semi-structured interviews were conducted, where a sample was drawn from SME owners/mangers using purposive sampling (Kothari 2004: 15). The motive behind the selection of purposive sampling was to ensure the researcher intentionally selects a group of people that will provide

necessary information about the research topic, thus ensuring representation. According to Etikan *et al*. (2016: 2), purposive sampling offers the researcher an opportunity to identify and select individuals proficient and well-informed with the phenomenon of the research problem. Kumar (2011: 189) states purposive sampling is beneficial when a researcher wants to construct a historic reality, describe a phenomenon or develop something about a topic where only a little is known. Regarding the qualitative study phase, the sample size for the semi-structured interviews included 12 SME owners/mangers. The researcher started by conducting 10 interviews and thereafter continued until saturation was reached. According to Onwuegbuzie and Collins (2007: 289), a minimum of 10 interviews is sufficient for a qualitative study.

4.4.8.2.1 Target potential interviewees

The sampling frame for the semi-structured interviews comprised SME owners or managers who indicated to the researcher they were willing to participate in interviews. The sample size for semi-structured interviews consists of 12 SME owners or managers. According to Mason (2010: 2), samples for qualitative research are commonly much smaller than those used in quantitative research. In addition, Creswell (2014: 239) discovered that doctoral studies generally adopt the sample size of between three to 10 participants, while Mason (2010: 2) states 10 is the smallest suitable sample for qualitative research. The study on qualitative research by Mason (2010: 18), concluded for students to make properly informed decisions on fieldwork and eventually close their analysis, it is of critical importance to understand and take the concept of saturation into account. In support of this viewpoint, Charmaz (2006, cited in Creswell 2014: 239) explains that in a qualitative study, a researcher must stop collecting data when saturation is achieved. Consequently, the researcher decided to interview a minimum of 10 respondents and thereafter, continue until saturation was reached.

4.4.8.2.2 Gaining access to interviewees

For the researcher to obtain access to the participants, an invitation was either sent via email or included at the end of the online survey questionnaire. When a positive response was received indicating willingness to participate in the interview, an e-mail enclosing a covering letter, together with the interview schedule of the questions was sent to each potential participant. Thereafter, the

researcher made a telephone call to the potential participants confirming a suitable medium of communication with further details venue, date and time decided.

4.5 DATA ANALYSIS: QUANTITATIVE AND QUALITATIVE PHASES

The data collected formed a base for the researcher from which to identify key techniques for data analysis that would be conducive to comprehend the study findings by means of different analytical tests. Ott and Longnecker (2010: 29) state data processing and analysis is important for the study, since it deals with technical matters affecting the study.

4.5.1 Quantitative phase

According to Marczyk *et al*. (2005: 198), the analysis of quantitative data involves preparing of data for analysis, analysing, and then interpreting the data, which includes testing of hypotheses and drawing of valid inferences. Data were analysed and presented using descriptive and inferential analysis, discussed below. Furthermore, Cronbach's alpha was used to measure the internal consistency of the study instrument. The collected data were analysed using the statistical package for social sciences (SPSS) version 27.0.

4.5.1.1 Cronbach's Coefficient Alpha

As explained by Singh *et al*. (2021: 1293), Cronbach's alpha is a method used to test the internal reliability of the study. Souza, Alexandre and Guirardello (2017: 651) argue internal consistency is critical for the research, as it confirms the reliability and validity of the study to ensure all parts of the instrument(s) measure the same thing. This study uses Cronbach's Coefficient Alpha to measure the internal consistency of the survey instrument. Researchers such as Tavakol and Dennick (2011: 54) and De Vaus (2014: 241) agree that Cronbach's alpha ranges from zero to one and the higher the value, the more reliable the scale. De Vaus (2014: 241) further states the minimum acceptable alpha value is 0.7. It can be concluded the Cronbach's alpha is a coefficient of consistency suitable to be used to measure the reliability and internal consistency of the survey questionnaire for this study.

4.5.1.2 Frequency analysis

This study utilised frequency analysis to examine how frequently a respondent made a response to a certain statement and to verify coding of data. Should the

responses not equal the total sample, it implies the data were not accurately captured (Babbie *et al*. 2002: 298). Furthermore, Brown, Suter and Churchill (2018: 254) state frequency analysis shows an overview of the study results and provides a full perspective of the number of cases that belong in different response categories defined in the research questionnaire.

4.5.1.3 Descriptive analysis

Descriptive analysis in this study is used to describe the nature and magnitude of sensory characteristics of the research (Kemp *et al.* 2018: 3). According to Sloman (2010: 20), through summary data collected events are observed, correlated with the circumstance of some target response, using graphs and frequency analysis. For this study, descriptive statistics were used to summarise the results of the collected data and to generate objective, statistically reliable and statistically analysable data (Kemp *et al*. 2018: 3).

4.5.1.4 Inferential statistics and Chi-square test

Inferential statistics are used to determine the differences or connections between variables that can be generalised from the sample to the study population (Bettany-Saltikov and Whittaker 2014: 11). Inferential statistics tests are divided into three types, namely, hypothesis testing, confidence intervals, and regression analysis. The Chi-square (X^2) is a test used to determine whether there is a relationship between rows and columns in a contingency table; it also compares study groups and determines the difference in proportion to the risk factor of interest (Rana and Singhal 2015: 69). According to McHugh (2013: 143), the Chi-Square test (X^2) is used to determine the level of significance between two variables in one or more categories.

For this study, Chi-square tests were used to test the level of significance between the variables, in line with the study objectives and proving the study hypotheses.

4.5.1.5 Correlations

According to Saunders *et al*. (2009: 450), correlation statistical analysis is a measurement of relation between variables. Correlation tests show whether, and how strong a relationship is among pairs of variables (Greasley 2007: 14). This means the strength of the relationship between two ranked variables can be represented by +1 and -1 (Saunders *et al*. 2009: 450).

Therefore, in this study, correlation was utilised to determine and identify factors influencing the contribution of construction SMEs to economic growth in the Eastern Cape.

4.5.2 Qualitative phase

Qualitative data analysis is described by Zireva (2013: 39) as a meticulous process that includes a methodical process of selecting, categorising, comparing, synthesising, and reflecting on the data collected, to achieve deep knowledge of the phenomenon being researched. The process to analyse the qualitative data commenced after collection, which followed on conclusion of the quantitative phase data analysis. During qualitative phase data collection, the responses for semi-structure interviews were recorded and analysed by the researcher using thematic content analysis. In this study, thematic data analysis, which looks at identifying themes and patterns, was utilised to analyse data for the qualitative phase (Aronson 1995: 2).

Once the researcher had conducted the interviews, a process of organising and managing the data in an understandable manner commenced. On completion, the data were coded into themes developed from the interviews (Zireva 2013: 39). The following themes arose from the interview analysis:

- Critical characteristics of construction SMEs.
- Government economic growth policy in the Eastern Cape to support construction SMEs.
- Factors influencing the performance of construction SMEs.
- Ways to improve construction SMEs' situation by government, policy makers and private sector.
- Need for integrated model to enhance support of construction SMEs.

The above key themes were also supported by the study literature, as a foundation for theme development from the data on factors influencing construction SMEs' contribution to economic growth. The researcher analysed transcripts by means of thematic analysis.

4.6 DATA TRIANGULATION

As explained by Heale and Forbes (2013: 98), triangulation is used to describe research in a mixed-methods design within the study of a single phenomenon. In support, Creswell (2009: 289) refers to two forms of methodologic triangulation, namely, simultaneous where both methods are applied simultaneously and sequential, using results of one method to plan the other next method. Sekaran and Bougie (2016: 106) claim the advantage of triangulation is it addresses the research study from different angles.

For this study, triangulation was used to complement findings of the quantitative phase, where the results of the quantitative research were used to develop the instrument for the qualitative research, to gain deep insight of the factors influencing construction SMEs' contribution to economic growth in the Eastern Cape. Furthermore, triangulation was used to improve the validity of the study (Wagner, Kawulich and Garner 2012: 138).

4.7 STUDY RELIABILITY AND VALIDITY

According to Ahmed and Ishtiaq (2021: 2401) and Mohajan (2017: 10), reliability and validity are key critical aspects that need to be considered in any research as they are used to measure the quality of research, which determines how well a methodology, data collection technique or data analysis is planned to test study variables. Reliability can be defined as the level to which the selected data collection technique will produce the same findings in successive observations of a given study, where the phenomenon being measured has not changed (Ngibe 2020: 104; Saunders *et al*. 2009: 156). Saunders *et al*. (2009: 291) warn that in research, observer bias is something that cannot be avoided; however, researchers need to be aware of the threat it presents and that it needs to be controlled if possible.

Validity is the level to which an instrument measure captures what it claims to measure (Mohajan 2017: 13). Noble and Smith (2015: 1) assert validity is concerned with the integrity and application of the measure used to collect data. Thus, the validity of an instrument can be confirmed as valid when it measures what is meant to be measured (Taherdoost 2016: 28). With regard to mixed-methods studies, Creswell (2014: 292) has cautioned researchers on internal

(instruments or experience of participants) and external (generalisation) threats of validity.

4.7.1 Reliability and validity in the quantitative phase

As discussed above, it has been advised by Singh (2007: 78) that Cronbach's alpha is useful when testing reliability or internal consistency. When it comes to multiple questions Cronbach's alpha assesses reliability and indicates to the researcher if the survey instrument is reliable. Thus, in this study, Cronbach's alpha was used to test the reliability of constructs in the questionnaire. Furthermore, a pilot study was conducted before the questionnaire was distributed to the participants to ensure all questions asked were easy to understand and free from ambiguity (Gupta and Gupta 2011: 23). As an additional measure, the researcher made sure the survey questions were derived from the literature review in chapter two and three of this study. To improve the validity of the instrument, the survey questionnaire was released to a professional editor to assess any mistakes and incorrect language.

4.7.2 Reliability and validity in the qualitative phase

As a measure of reliability for the qualitative study phase, content analysis was applied by the researcher. In addition, through triangulation, data collected were assessed by checking for accuracy, trustworthiness, consistency, and credibility. Furthermore, as suggested by Creswell (2014: 251), the validity, such as trustworthiness, of the study was enhanced by having the interview schedule evaluated by specialists. Data were recorded and written down. Current literature was used through thematic content analysis to interpret and analyse the results of the study.

4.8 ETHICAL CONSIDERATIONS

Ethics in research refers to moral choices influencing decisions, norms and behaviour (Greener 2008: 40). Ethics is a critical component of any study (Kumar 2011: 309). According to De Vaus (2014: 72), when conducting a study, ethics is mostly concerned with the five ethical responsibilities in relation to respondents, namely, voluntary participation, informed consent, no-harm, and confidentiality, as well as anonymity, and privacy. When designing a research strategy for the project it is important for researchers to pay serious consideration to ethical issues, as this

will enhance accountability and mutual respect between researcher and participants (Babbie 2010: 120).

Through the gatekeeper's letter (Appendix 2) and letter of information and consent form (Appendix 3), participants in the study were informed regarding the research purpose and nature. The information and consent letter deals with ethical compliance standards, which assured respondents of their confidentiality and anonymity, as well as matters related to storage and discarding of collected data. Consequently, informed consent was gained from study participants. The gatekeeper's and information and consent letters, as well as the survey questionnaire (Appendix 5) were submitted to DUT Faculty of Management Sciences Research Ethics Committee for ethical clearance.

Ethical clearance (Appendix 1) was obtained in August 2021, following which a letter of information and a consent form accompanied by the survey questionnaire, were issued to the respondents. Once data analysis of the quantitative phase was complete, a draft interview schedule was submitted to the Ethics Committee. Subsequently, the letter of information and a consent form, accompanied by the interview schedule (Appendix 6), were issued to the participants. The Ethics Committee ensures this study meets the prescribed ethical requirements (De Vaus 2014: 72).

4.9 CONCLUSION

This chapter presented an overview of the mixed-methods, explanatory sequential design strategy as research methodology adopted for this study. The way the sample frame was selected is discussed. Random sampling was used to select the survey respondents and purposive sampling was used to select interview participants. For the quantitative phase, a survey questionnaire was designed and distributed to 303 participants as part of the study sample. Subsequently, the qualitative phase, with a sample population of 12, was initiated using semi-structured interviews. Furthermore, the chapter also discussed reliability and validity of the two research instruments, along with multiple methods of data analysis for every phase and the statistical tests conducted in every data set. The next chapter presents and analyses the findings of the quantitative and qualitative study phases.

CHAPTER FIVE: DATA ANALYSIS, INTERPRETATION AND DISCUSSION

5.1 INTRODUCTION

The previous chapter outlined the methodology used for this study. This chapter sets out the results, discussing both quantitative and qualitative data collection and presenting the findings obtained from participating construction SMEs. In addition, this chapter will also present and analyse the empirical findings of the qualitative phase, since the researcher followed a mixed-methods technique. The next section presents results and a discussion of the quantitative phase.

5.2 QUANTITATIVE FINDINGS

As indicated in Chapter 4, data on which quantitative findings are derived were gathered from construction SME owners and/or managers. Quantitative data were collected through a completed survey instrument and then captured using Microsoft Excel. Thereafter, IBM SPSS v. 27 was utilised to perform preliminary analyses of the data (Greasley 2007: 3). Lastly, the researcher presented empirical findings of the quantitative phase, analysed, discussed and made conclusions using the literature review as a foundation to achieve the study objectives. As cautioned by many scholars, the researcher utilised literature and own thinking to interpret the data by identifying recurring patterns, consequently reaching the required conclusions (Saunders *et al.* 2009: 56; Creswell 2014: 62; De Vaus 2014: 398; Marczyk *et al.* 2005: 198). Afterwards, the quantitative results were used as a base for the formulation of the interview schedule. The next section will discuss the sample of the quantitative phase.

5.2.1 The Sample

In total, 303 questionnaires were despatched and 303 were returned, which gave a 100 percent response rate. Thus, the attainment of 100 percent response meant a good representation of the population was obtained, providing conclusive generalisation of the population to be studied. The research instrument is discussed next.

5.2.2 The Research Instrument

The questionnaire was divided into two sections, where section A aimed to gather biographical information and section B focused on the factors influencing the construction SMEs' contribution to economic growth in the Eastern Cape province. The survey questionnaire used a Likert Scale format, which consisted of only closed-ended questions. Various themes are illustrated below:

A1-10 Biographic information:

B11 Education and training affect the performance of construction SMEs
12 Governmental support affects construction SMEs' contribution to economic growth
13 Business managerial skills affect the performance of construction SMEs
14 Entrepreneurial leadership affects the performance of construction SMEs
15 Shortage of skills affects the construction SMEs' contribution to economic growth
16 Financial barriers affect the construction SMEs' contribution to economic growth
17 Technology infrastructure affects the construction SMEs' contribution to economic growth
18 Organisational support affects the performance of construction SMEs
19 Access to the market affects construction SMEs contribution to economic growth
20 Delays in payment affect construction SMEs' contribution to economic growth
21 Networking resources affect construction SMEs' contribution to economic growth
22 Social barriers affect the performance of construction SMEs
23 Government institutions affect the contribution of construction SMEs to economic growth
B24 Regulatory factors affect the contribution of construction SMEs to economic growth

The next section will discuss the reliability of the study.

5.2.3 Reliability Statistics

In this study, reliability testing was done using Cronbach's alpha. Reliability is measured using a reliability coefficient, calculated by taking several measurements on the same subjects. The acceptable value for the reliability coefficient is 0.70 or higher, with a reliability coefficient closer to 1.0 considered better.

The Cronbach's alpha for this study was found to be in a range of 0.727 to 0.967, which exceeds the recommended Cronbach's alpha value. This proves a degree of acceptable, consistent scoring for these sections of the research. A detailed analysis is provided (Table 5.1) of the Cronbach's alpha score for all the variables from each objective as per the question.

Reliability analysis was performed in all statements, where questions were categorically organised according to research themes aligned to the research aim and objectives. Reliability scores for all sections exceeded the required Cronbach's alpha value for newly constructed constructs. Consequently, the results show (Table 5.1) the collected data are considered acceptable and consistent for all sections of the study. The factor analysis will be discussed in the next section.

Table 5.2: Cronbach's alpha reliability test

		N of items	Cronbach's Alpha
B11	Education and training affect the performance of construction SMEs	3	0.7266
B12	Government support affects the construction SMEs contribution to economic growth	9	0.919
B13	Business managerial skills affect the performance of construction SMEs	9	0.938
B14	Entrepreneurial leadership affects the performance of construction SMEs	7	0.912
B15	Shortage of skills affect the construction SME contribution to economic growth	4	0.863
B16	Financial barriers affect construction SMEs contribution to economic growth	4	0.940
B17	Technology infrastructure affects construction SMEs contribution to economic growth	4	0.908

B18	Organisational support affect construction SMEs contribution to economic growth	8	0.950
B19	Access to market affects construction SMEs contribution to economic growth	9	0.965
B20	Delays in payments affect construction SMEs contribution to economic growth	5	0.878
B21	Networking resources affect construction SMEs contribution to economic growth	5	0.839
B22	Social barriers affect construction SMEs performance	7	0.907
B23	Government institutions affect the contribution of construction SMEs to economic growth	3	0.917
B24	Regulatory factors affect the contribution of construction SMEs to economic growth	8	0.967

5.2.4 Factor Analysis

In this study, factor analysis was used to ensure construct validity of statements. This was achieved by means of testing whether the statements used to measure actually do measure the same thing. It was applied to each set of items intended to measure the convergent validity. This was achieved through the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity (Table 5.2). The acceptable value for KMO is 0.5 and higher, while a value of 0.7 and higher is considered good and a value below 0.5 is considered weak. The acceptable value of significance for Bartlett's test of Sphericity is less than 0.05.

Table 5.3: KMO and Bartlett's test

		Kaiser-Meyer-Olkin Measure of Sampling Adequacy	**Bartlett's Test of Sphericity**		
			Approx. Chi-Square	**df**	**Sig.**
B11	Education and training affect the performance of construction SMEs	0.691	233.195	3	0.000
B12	Government support affect the construction SMEs contribution to economic growth	0,922	1652.458	36	0.000
B13	Business managerial skills affect the performance of construction SMEs	0.944	2012.422	36	0.000
B14	Entrepreneurial leadership affect the performance of construction SMEs	0.927	1214.895	21	0.000
B15	Shortage of skills affect the construction SMEs contribution to economic growth	0.825	548.826	6	0.000

B16	Financial barriers affect construction SMEs contribution to economic growth	0.869	1066.665	6	0.000
B17	Technology infrastructure affect construction SMEs contribution to economic growth	0.846	789.975	6	0.000
B18	Organisational support affect construction SMEs contribution to economic growth	0.953	2082.913	28	0.000
B19	Access to the market affect construction SMEs contribution to economic growth	0.957	2881.107	36	0.000
B20	Delays in payments affect construction SMEs contribution to economic growth	0.864	769.177	10	0.000
B21	Networking resources affect construction SMEs contribution to economic growth	0.836	551.898	10	0.000
B22	Social barriers affect construction SMEs performance	0.874	1308.206	21	0.000
B23	Government institutions affect the contribution of construction SMEs to economic growth	0.754	652.758	3	0.000
B24	Regulatory factors affect the contribution of construction SMEs to economic growth	0.963	2700.172	28	0.000

A detailed analysis is presented (Table 5.2) of the KMO and Bartlett's test of Sphericity, with scores for all the variables from each objective, as per the question, showing all the requirements for factor analysis are satisfied. This is based on the KMO values being higher than 0.6 and Bartlett's test of Sphericity significance values being less than 0.05 for all the constructs, which show the sampling was adequate. The above results clearly show that the samplings, and all variables under each construct, are satisfactory and statistically significant in measuring the same thing. For example, the tests prove a 0.944 KMO measure of sampling adequacy, indicating that business management skills have an acceptable factor extraction (0.000) on the performance of construction SMEs and thus, their contribution to economic growth. The next section will discuss the biographical data of the study.

5.2.5 Demographic Data

For this study, the survey questionnaire was divided into two sections, namely, biographical information (section A) and factors influencing the contribution of construction SMEs to economic growth (section B). Section A comprised 10 statements that seek to understand the gender, age group, highest qualification, and types of ownership, as well as type of construction industry, number of years

in existence, current position in the business, and CIDB grading of the business, in addition to how many people the business employs, and the average annual turnover in the last three years. The results for section A will be further discussed and analysed in the next sub-sections.

5.2.5.1 Gender distribution of participants

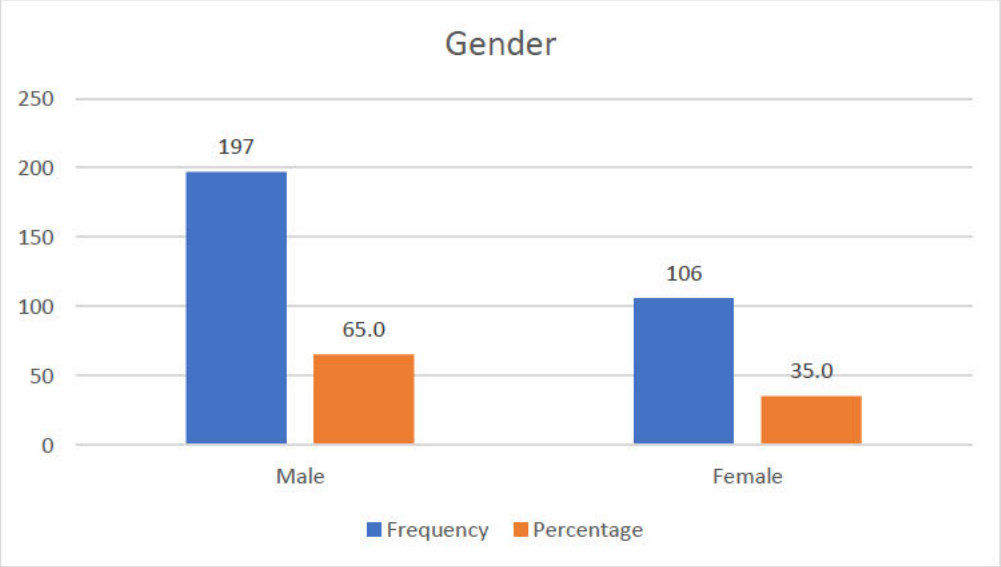

Figure 5.3: Gender

Construction SME respondents were asked to indicate their gender. Figure 5.1 shows the majority respondents (65 percent) are male, with only 35 percent of respondents being female. This result was expected, as there are traditionally more males than females in the construction sector, which shows the sector remains dominated by males. These findings are like those of OECD countries such as Australia, where only one-third of SMEs are owned and managed by women (OECD 2017: 38).

Respondents' age groups are discussed next.

5.2.5.2 Age group

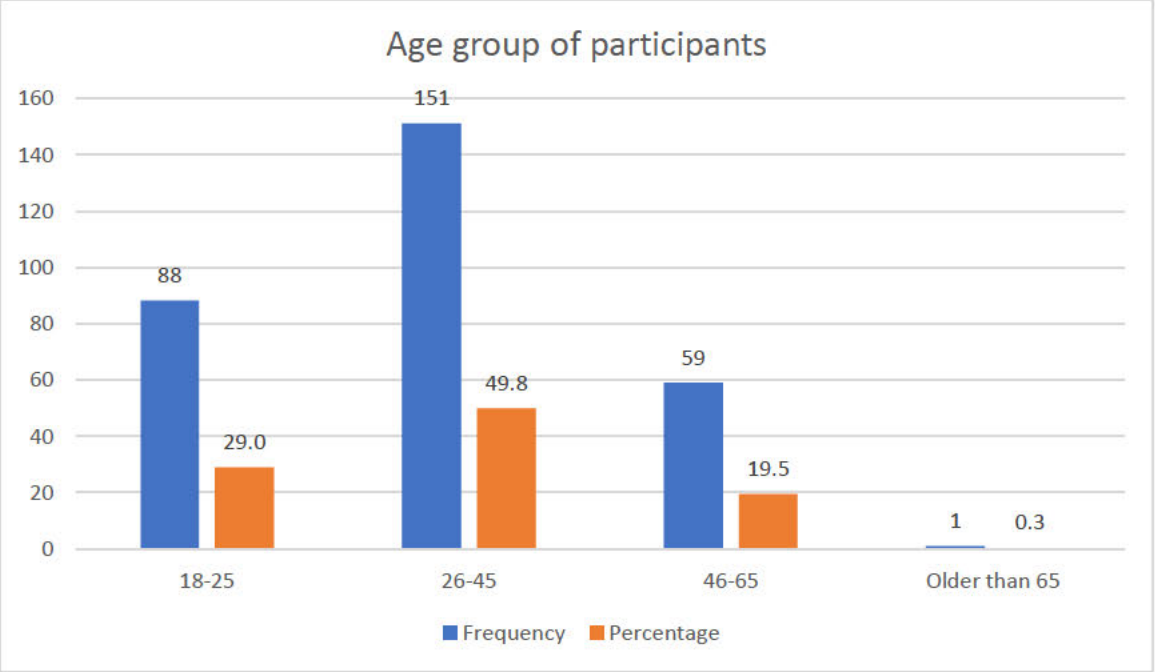

Figure 5.4: Age group

Construction SME respondents were asked to indicate their age, with Figure 5.2 illustrating the results. A significant percentage of the respondents (49.8 percent) indicated their age between 26-45 years of age, followed by 29 percent of respondents between the ages of 18-25 years, while 19.5 percent were between 46-65 years, with 0.3 percent of respondents older than 65 years.

Thus, a significant number of construction SME respondents are between the ages of 26-45 years. Interestingly, the findings show a considerable number of young entrepreneurs working in the construction SME sector. This differs slightly from the OECD report (2017: 16), which highlights entrepreneurs are normally males, aged between 40-50 years. The next section discusses the highest qualification of respondents.

5.2.5.3 Highest qualification

The survey respondents were asked to indicate their highest qualification. Figure 5.3 below reflects that 24.4 percent of respondents indicated a National Diploma as their highest qualification, while 18.5 percent had Matric, followed by 14.5 percent who had a Certificate, and 12.5 percent of respondents that had a secondary education. Furthermore, 10.6 percent of respondents had attained a

Bachelor of Technology, with 8.6 percent a Post Graduate Diploma, while four percent had a Post Graduate Degree and 3.3 percent an Honours Degree, in addition to which 2.6 percent indicated a Master's Degree, and 0.3 percent of respondent had other qualifications and certifications. The results (Figure 5.3) show 68 percent of respondents has a tertiary qualification, with the majority having at most, a diploma.

Therefore, the majority of construction SMEs regard higher education as an important factor for their businesses. These findings are contrary to Dithebe *et al.* (2018: 1186), who claim there are many businesses owners/managers in the construction sector who have neither formal training nor a degree. However, the findings confirm a report by SEDA (2016: 24), which noted that since 2016 the number of tertiary education qualifications for SME owners has increased by 20 percent. The next sub-section will analyse type of ownership of construction SMEs.

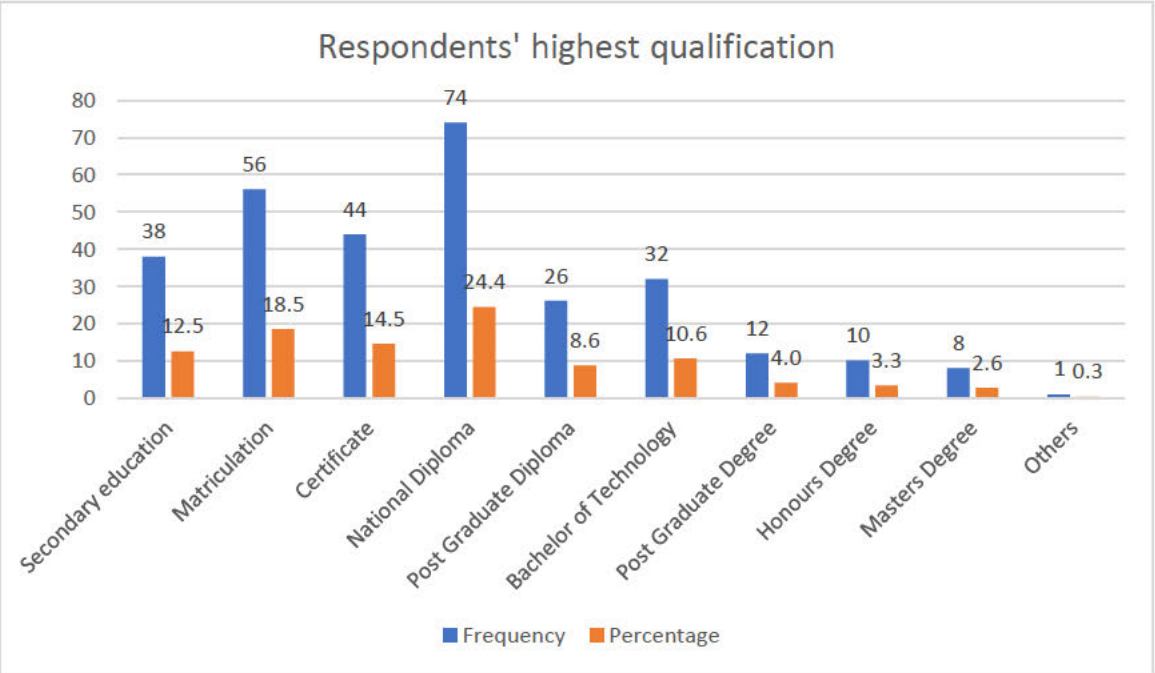

Figure 5.5: Highest qualification

5.2.5.4 Types of ownership

Respondents were asked to indicate their business ownership. Figure 5.4 below denotes the majority (66.7percent) construction SMEs that participated in the study comprises privately owned companies, a few (16.2 percent) are close

corporations, while 8.9 percent is made up of partnership businesses, with 4.2 percent sole proprietors and only four percent public companies.

Thus, most respondents are construction SME owners/managers whose businesses are privately owned companies as illustrated (Figure 5.4) below. The next section will discuss classes of construction businesses.

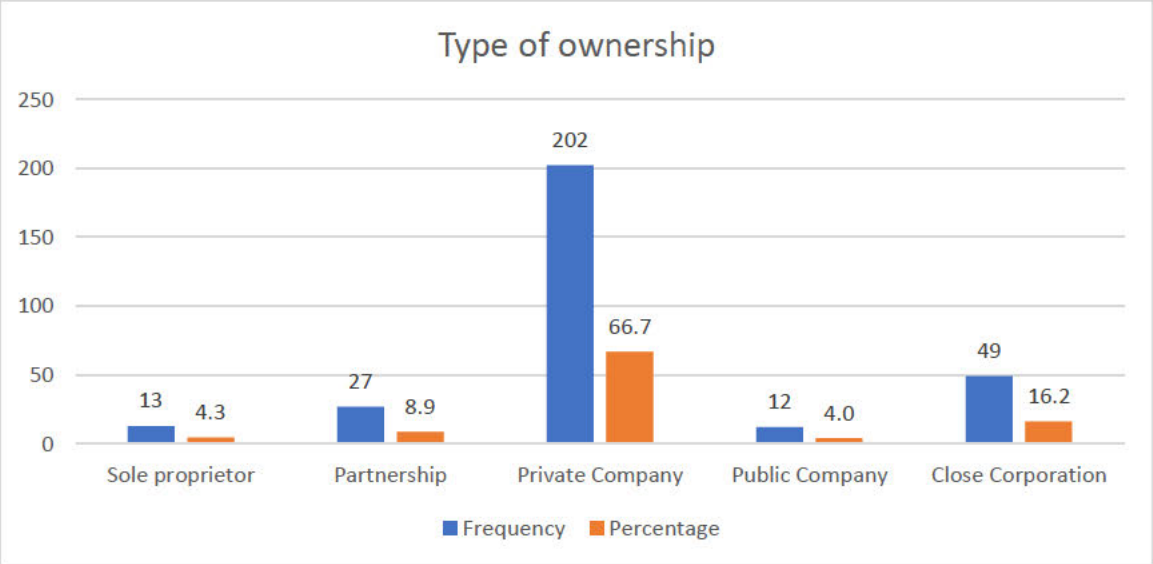

Figure 5.6: Type of ownership

5.2.5.5 Classes of construction businesses

The survey respondents were asked to indicate the type of ownership under which their business operated. Figure 5.5 below reveals the results, showing a moderate number (37 percent) of construction SMEs operating as general building, with 35.3 percent operating in civil engineering, while 10.6 percent operate in electrical engineering (In) and 8.3 percent in mechanical engineering. Furthermore, 7.9 percent operates as electrical engineering (building), with 0.7percent operating in other classes and only 0.3 percent construction SMEs indicated operating under specialised works (SB to SQ).

Therefore, the majority classes that represented construction SMEs in this study were general building and civil engineering. This proves the lesser representation of construction SMEs in other classes of construction. Number of years the construction SME has been in existence is discussed next.

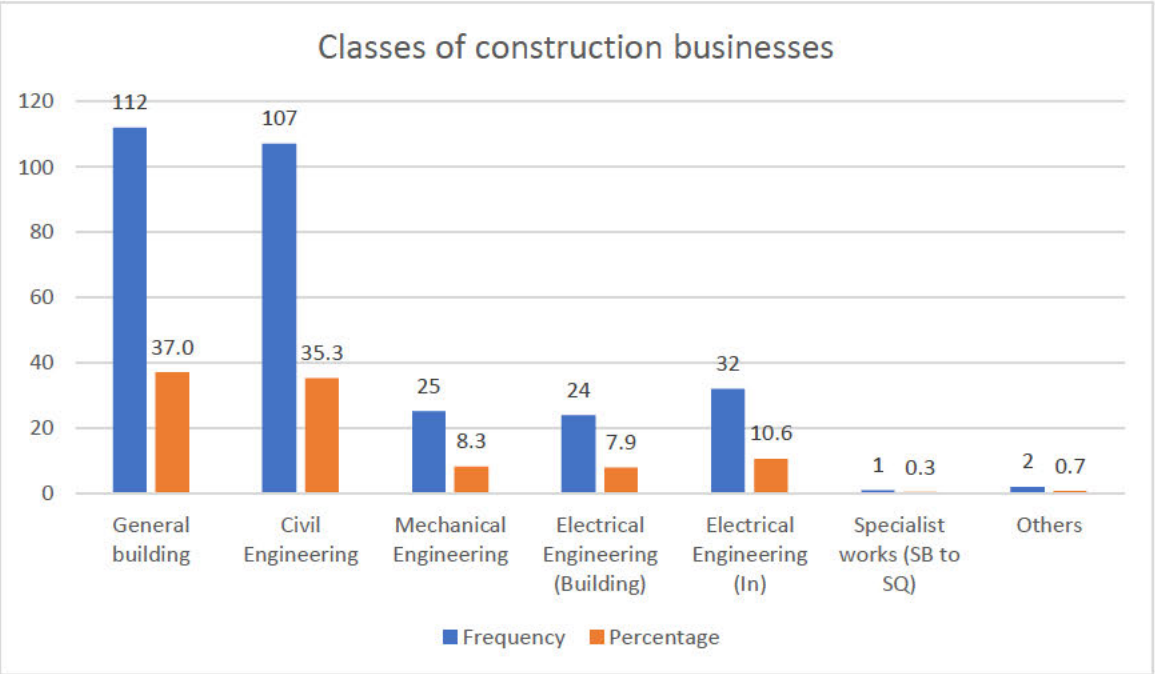

Figure 5.7: Classes of construction businesses

5.2.5.6 Number of years the business has been in existence

Respondents were asked their business class type, with Figure 5.6 illustrating that a moderate number (45.9 percent) of the participating construction SMEs have been in existence for 6 -10 years, with 38.6 percent in existence for less than five years and 14.5 percent for 11-15 years, whereas only 0.3 percent of the construction SME respondents had been in existence for more than 15 years.

Thus, the bulk of businesses that represented construction SMEs had been in existence between 6-10 years (Figure 5.6). These findings are contrary to the literature, with many studies who indicated many SMEs in SA do not survive more than five years (Msomi and Olarewaju 2021a: 104; Asah *et al.* 2020: 2; Nqala 2019:1). It is, nonetheless, claimed by Wentzel *et al.* (2022: 1) that construction SME entrepreneurs who start a new business fail within the first year. The study findings, however, indicate construction SMEs have become more resilient and sustainable. The next section describes the respondents' current position in the business entity.

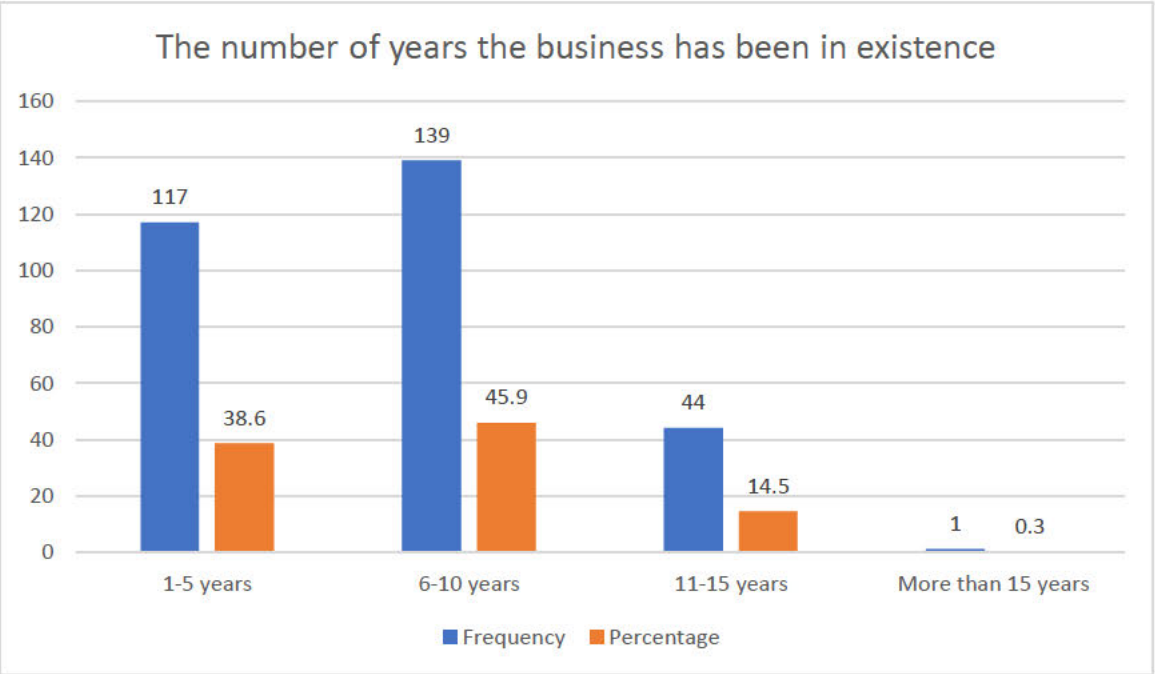

Figure 5.8: Number of years the business has been in existence

5.2.5.7 Current position in the business entity

The survey respondents were asked their position in the business at present. Figure 5.7 indicates slightly less than a quarter (23.4 percent) respondents are owners of businesses, while 18.5 percent are directors of the company, 17.5 percent are managers, and 15.5 percent are managing directors. Very few (9.2 percent) respondents indicated they are employed as senior managers, with 7.6 percent as chief executive officers (CEOs), while five percent indicated they are partners and three percent indicated members of a close corporation as their current position.

Thus, it appears owners were the largest portion of respondents (Figure 5.7) to represent construction SMEs in this study. CIDB grading is discussed next.

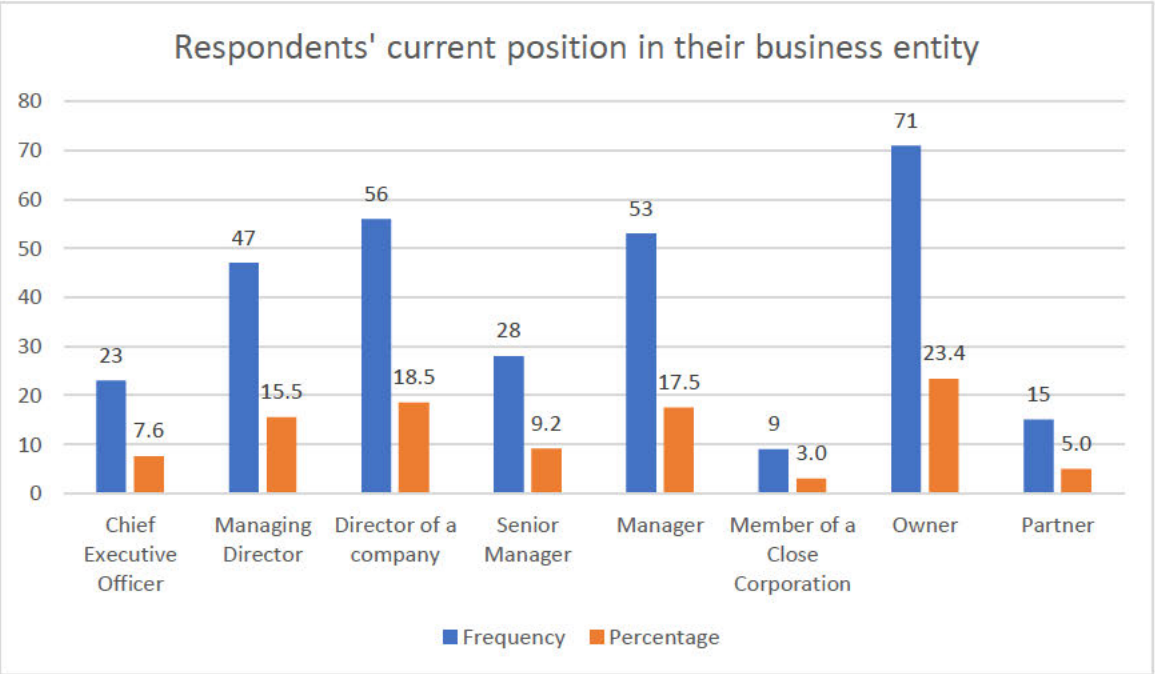

Figure 5.9: Current position in the business entity

5.2.5.8 Construction Industry Development Board (CIDB) grading

The respondents were asked to disclose their current grading in the CIDB. Figure 5.8 below reveals just more than a quarter (27.7 percent) construction SMEs are registered under CIDB grading 3, whereas 24.4 percent are registered as grade 2, with 21.5 percent under grading 1, and 17.8 percent are grade 4. Only 4.3 percent construction SMEs are registered under CIDB grading 5, while four percent are registered under other.

Thus, the largest grade represented by construction SMEs in this study, was grade 3, closely followed by grade 2, and grade 1. These findings contradict the findings by Adendorff *et al*. (2011: 43), who indicated grade one contractors in the Eastern Cape make 91.8 percent of the total number of registered contractors in the province. This shows (Figure 5.8) that the number of grade 2 and 3 construction SMEs in the Eastern Cape has grown over the years. The number of people employed by the construction SMEs is discussed next.

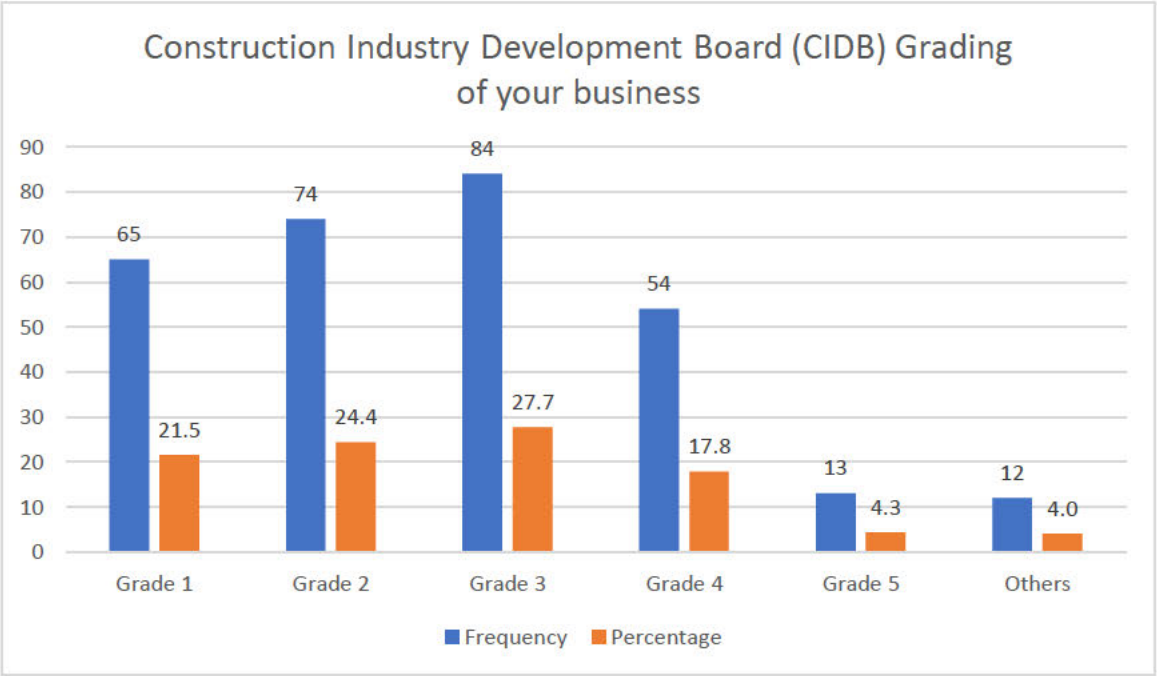

Figure 5.10: Construction Industry Development Board (CIDB) grading

5.2.5.9 Number of people employed by the business

The survey respondents were asked the number of people employed by their business. Figure 5.9 below shows a moderate number (28.1 percent) employ less than 10 people, while 25.4 percent employ between 21 and 50 people, with 20.1 percent construction SMEs that employ between 51-100 people, and 16.20 percent employ between 11-20 people. Whereas 9.2 percent construction SMEs employed 101-200 people, only 0.7 percent construction SMEs fall under other.

It therefore appears a significant number of businesses that participated in the study employ less than 10 people, followed by those that employ between 21 and 50 people (Figure 5.9). The results confirm construction SMEs participated in the study. This is supported by the Small Business Act, No 102 of 1996, which classifies construction SMEs as firms that employ between 1 to 200 employees in their business (SA: Department of Small Business Development 1996: 20). The next section discusses the average annual turnover of the construction SME firm for the last three years.

Figure 5.11:Number of people employed by the businesses

5.2.5.10 Average annual turnover the last three years

Figure 5.10 below indicates a quarter (25.1 percent) construction SMEs that participated in the research had an average annual turnover of less than R200 000 for the last three years, while 22.4 percent had an average annual turnover between R201 000 to R3 000 000 in the last three years, with 20.1 percent that had an average annual turnover between R3 000 001 and R6 000 000 in the last three years, and 17.5 percent, with an average annual turnover between R6 000 001 to R10 000 000 in the last three years. Only 7.3 percent construction SMEs had an average annual turnover between R10 000 001 and R20 000 000 in the last three years, and 6.3 percent had an average annual turnover between R20 000 001 to R26 000 000.

Thus, a significant number of construction SMEs that participated in the study had an average annual turnover of less than R200 000 over the last three years. This means there was limited growth over the past three years for construction SMEs in the Eastern Cape. These findings are supported by Fatoki (2018: 2), who claims although there are considerable contributions by new SMEs in SA, 75 percent of these SMEs do not grow due to environmental challenges they face.

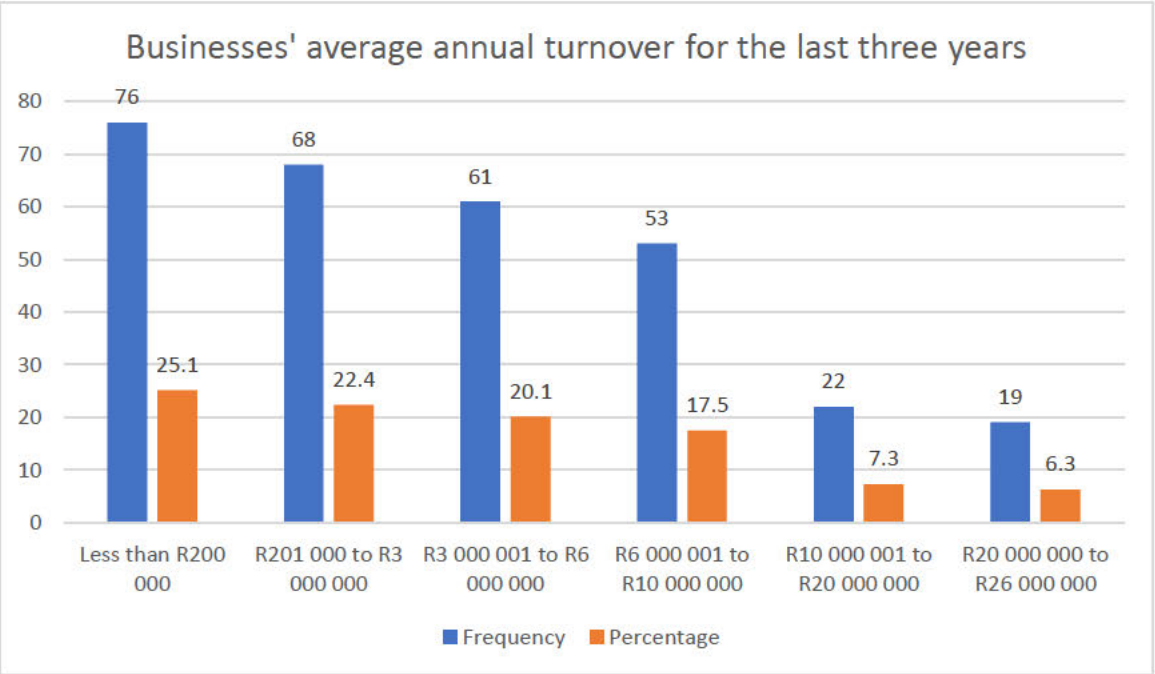

Figure 5.12: Average annual turnover the last three years

5.2.5.11 Summary

In summary, the population studied included:

- Construction SMEs from all different classes of construction industry as classified by the CIDB.
- Top and senior management included owners that represented businesses.
- Men and women represented construction SMEs.
- Different types of ownership were represented.
- A good mix of businesses from different levels of annual turnover, which proved targeted construction businesses were indeed SME businesses.

The next section will present and analyse results from section B of the survey questionnaire, which are the factors influencing the contribution of construction SMEs to economic growth.

5.2.6 Factors influencing the contribution of construction SMEs to economic growth

The main purpose of this section is to determine factors that influence the performance of construction SMEs. These factors have been categorised into 14 constructs, with each construct made up as follows: construct one comprising three statements; construct two - nine statements; construct three - nine

statements; construct four - seven statements; construct five - four statements; construct six - four statements; construct seven - four statements; construct eight - eight statements; construct nine - nine statements; construct 10 - five statements; construct 11 - five statements; construct 12 - seven statements; construct 13 - three statements; construct 14 - eight statements.

The identified factors were discovered through a thorough process of critically examining the literature in line with the study aims and objectives. The next section presents the findings regarding education and training that affect the performance of construction SMEs in the Eastern Cape. The findings will be presented in the form of tables and figures that depict results in frequencies and percentages. The results for section B on factors influencing the contribution of construction SMEs to economic growth will be further discussed and analysed in the next sub-sections.

5.2.6.1 Influence of education and training on performance of construction SMEs

In this section, construction SMEs were asked to state how likely it is that education and training influence their performance.

5.2.6.1.1 Level of education improves leadership skills of construction SMEs

According to Putro *et al.* (2022: 1670) and Wei *et al.* (2019: 1) the level of education equips leaders with entrepreneurial knowledge, which is a recipe for innovation talents and a driver for future development of construction SMEs. Considering this view, survey respondents were asked how likely it is that the level of education will improve leadership skills of construction SMEs.

The illustrated findings (Figure 5.11) below clearly show respondent agreement that increased education levels improve the leadership skills of construction SMEs. The majority of the respondents agreed (49.2 percent) or strongly agreed (23.1 percent) with the statement, while 16.5 percent remained neutral. A few (6.3 percent) respondents disagreed, and five percent strongly disagreed. Thus, the majority (72.3 percent) perceived level of education as an influencer of construction SME leadership skills. These findings are supported by the Chi-square test results (X^2 = 195.135; df = 4; P < 0,001) for this variable, which showed education is a critical component of leadership. This implies the result for

this variable was statically significant and was not due to chance (Appendix 8). These findings are supported by Karadag (2016: 12), whose study discovered the value regarding the strategic importance of educational levels that equip construction SME owners/managers with critical leadership skills, leading to increased construction SME performance.

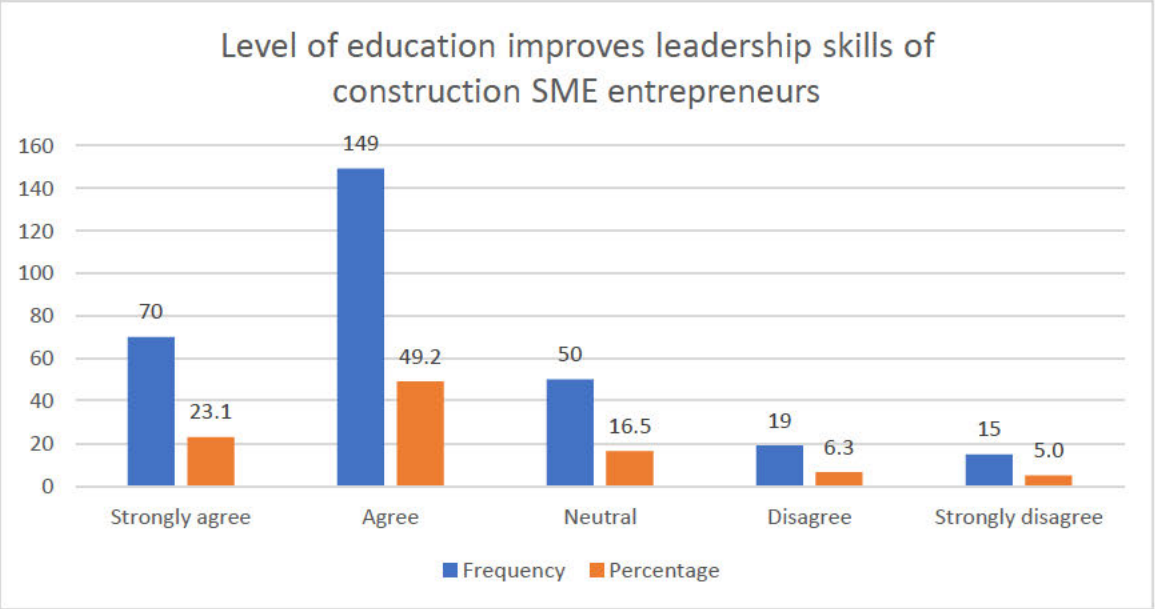

Figure 5.13: Education level improves leadership skills of construction SMEs

5.2.6.1.2 Entrepreneurial training will improve leadership skills of construction SME entrepreneurs

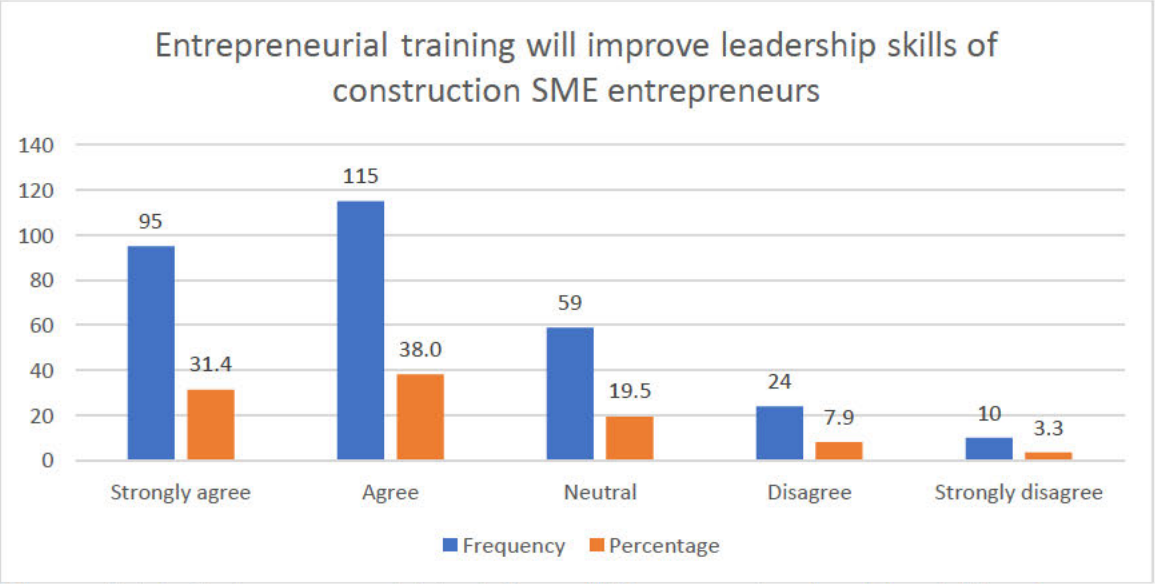

Figure 5.14: Entrepreneurial training will improve leadership skills of construction SME entrepreneurs

Respondents were asked to indicate how likely it is entrepreneurial training will improve the leadership skills of construction SME entrepreneurs. Figure 5.12 above illustrates that the majority (68.4 percent) respondents strongly agreed (31.4 percent) and agreed (38 percent) entrepreneurial training will improve the leadership skills of construction SME entrepreneurs. In addition, 19.5 percent respondents remained neutral, while 7.9 percent disagreed, and 3.3 percent strongly disagreed. These findings are supported by the Chi-square test results (X^2 = 132.759; df = 4; P < 0,001) for this variable, showing entrepreneurial training has a significant influence on leadership skills. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

The literature endorsed these findings, with Vasilska (2020: 18) affirming entrepreneurial training is a major contributor to the SME owner/manager, which enables the success of construction SMEs. Furthermore, Baah-Mintah *et al.* (2018: 143) assert entrepreneurs develop skills and knowledge through education and training that enable the SME business to grow and expand. Entrepreneurial training can, therefore, be seen as a tool to empower construction SMEs with key leadership skills for business success.

5.2.6.1.3 Level of education will improve ability of construction SME entrepreneurs to be innovative

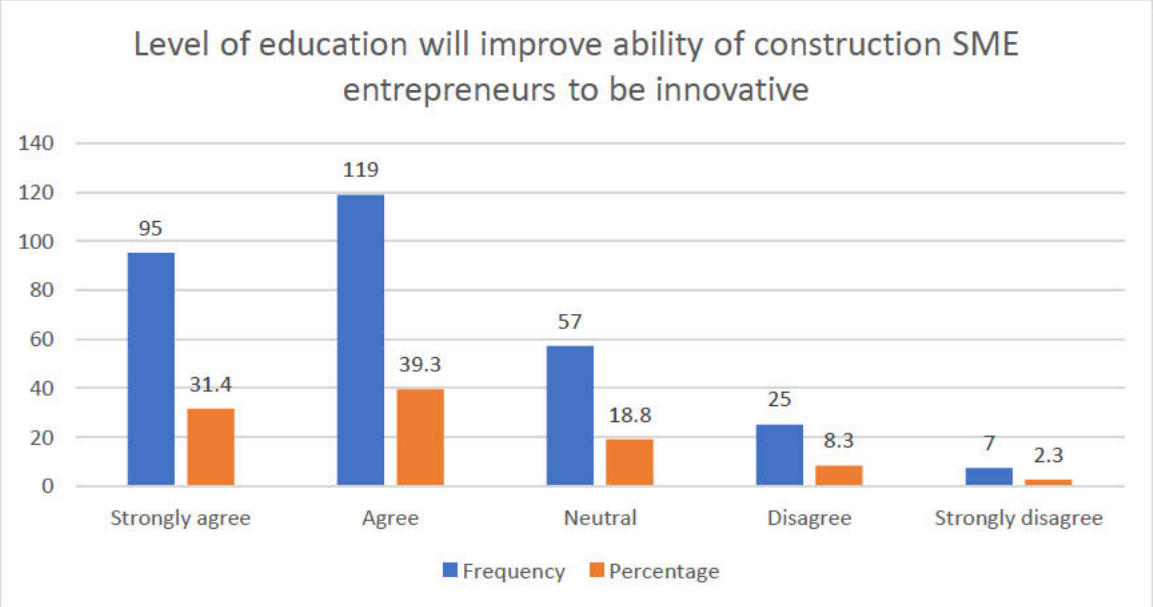

Figure 5.15: Level of education will improve ability of construction SME entrepreneurs to be innovative

Respondents were asked to indicate the likelihood that level of education will improve the ability of construction SME entrepreneurs to be innovative. As depicted (Figure 5.13) above, the majority respondents agreed, 39.3 percent and 31.4 percent respectively agreed and strongly agreed that level of education is critical, as it will improve the ability of construction SME entrepreneurs to be innovative. Furthermore, 18.8 percent respondents remained neutral, with 8.3 percent that disagreed, only 2.3 percent that strongly disagreed. These findings are supported by the Chi-square test results for this variable (X^2 = 144.343; df = 4; P < 0,001), which indicate level of education has a significant influence on the improvement of construction SME entrepreneurs' innovativeness, as illustrated (Table 5.3) below. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are in line with literature, as Wei *et al.* (2019: 1) and Almeida *et al.* (2018: 473) perceive level of education to be a recipe for innovative talents, thereby forming a string atmosphere for innovation and entrepreneurship, resulting in sustainable growth of revenues/profits, increased product quality and increased market share. Hence, Śledzik (2013: 90) advocates the phenomenon of innovation is the primary foundation of economic development and creates new opportunities for business development.

Table 5.4: Component matrix of education and training affecting the performance of construction SMEs

Component Matrix[a]

	Component 1
Level of education improve the leadership skills of construction SMEs entrepreneurs	.847
Entrepreneurial training will improve the leadership skills of construction SMEs entrepreneurs	.798
Level of education will improve the ability of construction SMEs entrepreneurs to be innovative	.831

Extraction Method: Principal Component Analysis.
* 1 component extracted.

The components shown in table 5.3 are additional statistical analysis on above-mentioned figures *(*Figure 5.11 to 5.13*)*. The factor analysis measured the underlying constructs of the construct education and training. These results show

respondents indicated only one category of components and all components show a very strong significance. The component test was done on the statement regarding whether level of education improves leadership skills, and a strong positive significance of 0.847 was determined. Furthermore, a strong positive significance of 0.831 was established for the statement whether level of leadership will improve the ability of construction SME entrepreneurs to be innovative. The last variable shows a figure of 0.798 on the statement whether entrepreneurial training will improve the leadership skills of construction SME entrepreneurs. It can be seen the component achieved from each matric is close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.2 Lack of government support affects construction SMEs' contribution to economic growth

In this section, construction SMEs were asked to state how likely it is the lack of government support influences their contribution to economic growth.

5.2.6.2.1 Lack of expertise among government officials affects construction SMEs' contribution to economic growth

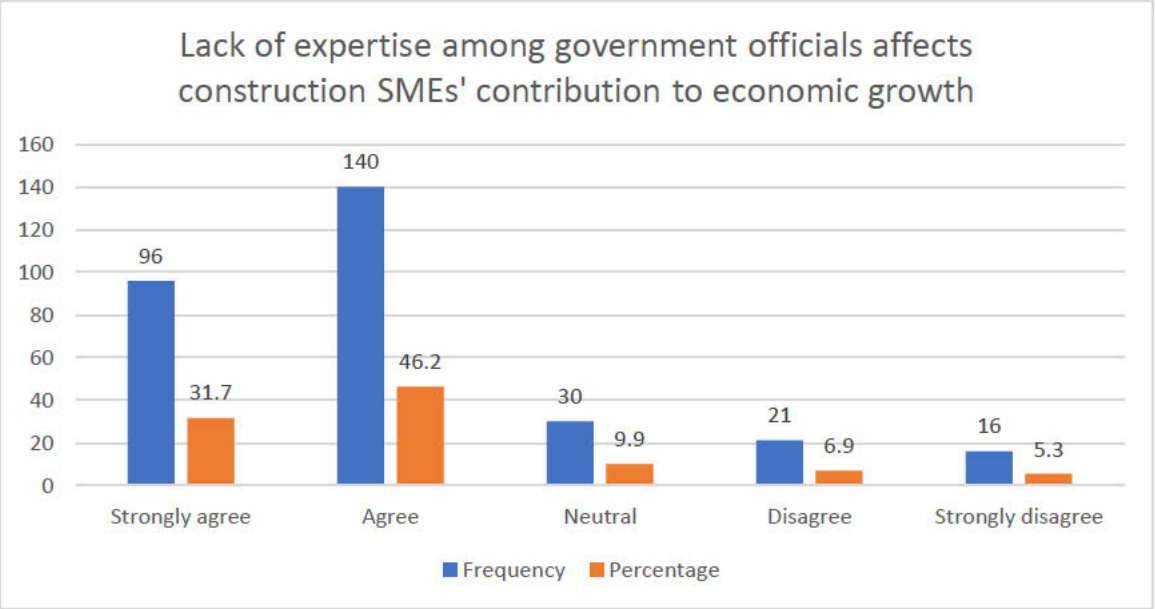

Figure 5.16: Lack of expertise among government officials affects construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it is lack of expertise among government officials influences construction SMEs' contribution to economic growth. As shown (Figure 5.14), a significant number (46.2 percent) of respondents agreed lack of expertise among government officials affects construction SMEs' contribution to economic growth and 31.7 percent strongly agreed with the statement. A small number (9.9 percent) of respondents were neutral, while 6.9percent disagreed and only 5.3 percent strongly disagreed to the statement. These findings are supported by the Chi-square test results (X^2 = 198.865; df = 4; P < 0,001) for this variable, show lack of expertise among government officials affects construction SMEs' contribution to economic growth. This implies the result for this variable was statically significant and was not due to chance (Appendix 8).

This agrees with a report by the NCR (2011: 32) that although government has many agencies to support SMEs, lack of informed accredited officials is a major constraint to the government support of these SMEs. Furthermore, the NCR (2011: 32) states the reason government interventions have not been successful, can be attributed to the staff delivering the support services being incompetent.

5.2.6.2.2 Lack of government policy support for construction SMEs affects their contribution to economic growth

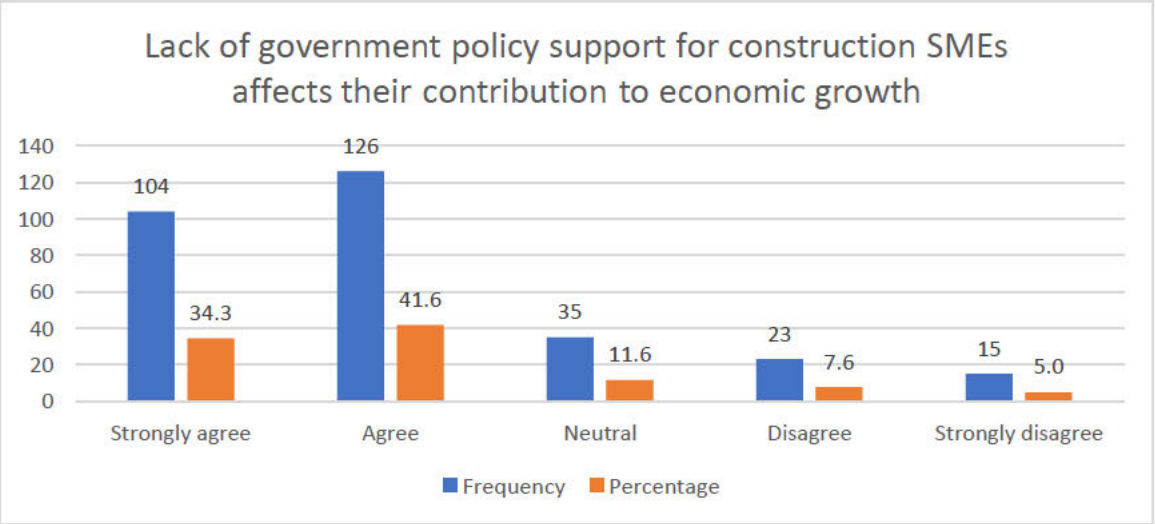

Figure 5.17: Lack of government policy support for construction SMEs affects their contribution to economic growth

The survey respondents were asked to indicate how likely it is that lack of government policy support for construction SMEs influences their contribution to economic growth. As indicated (Figure 5.15) above, a significant number (41.6 percent) of respondents agreed lack of government policy support for construction SMEs affects their contribution to economic growth, with 34.3 percent that strongly disagreed, while 11.6 percent of respondents remained neutral, 7.6 percent disagreed, and five percent strongly disagreed with the statement. Results from the Chi-square test shows (X^2 = 170.119; df = 4; P < 0,001) for this variable, indicating lack of government policy support for construction SMEs influences construction SMEs' contribution to economic growth. This implies the result for this variable was statically significant and was not due to chance (Appendix 8).

These findings are like those of Lekan *et al*. (2021: 19) and Maingi *et al*. (2019: 1) who discovered government policy is a major constraint to the success of construction SMEs. This agrees with Lekhanya (2015a: 413) who adds that bureaucratic licencing procedures is a major challenge and obstacle faced by SME owners/managers in SA.

5.2.6.2.3 Lack of government political will to support construction SMEs affects their contribution to economic growth

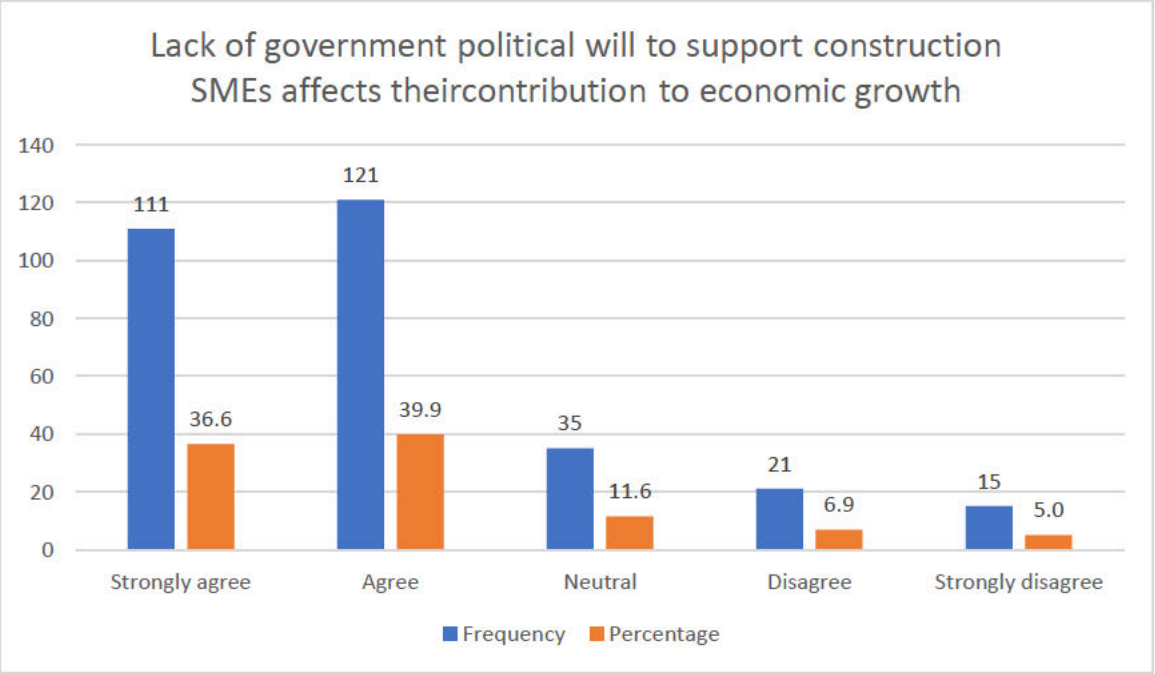

Figure 5.18: Lack of government political will to support construction SMEs affects their contribution to economic growth

The survey respondents were asked to state how likely it is the lack of government political will to support construction SMEs influences the contribution of these enterprises to economic growth. As shown (Figure 5.16) above, the majority (39.9 percent) respondents agreed lack of government political will to support construction SMEs affects their contribution to economic growth, while 36.6 percent agreed, 11.6 percent of the respondents remained neutral, 6.9percent disagreed and only five percent strongly disagreed with the statement. These results are supported by the Chi-square test results (X^2 = 173.122; df = 4; P < 0,001) for this variable, which show lack of government political will to support construction SMEs influences construction SMEs' contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by the literature, with Khan *et al*. (2022: 2) highlighting that government political support offers limited support to SMEs. Furthermore, policies related to political instability proved to be a constraint to the growth of SMEs (Rehman *et al*. 2019: 4).

5.2.6.2.4 Lack of government day-to-day guidelines for construction SMEs affects their contribution to economic growth

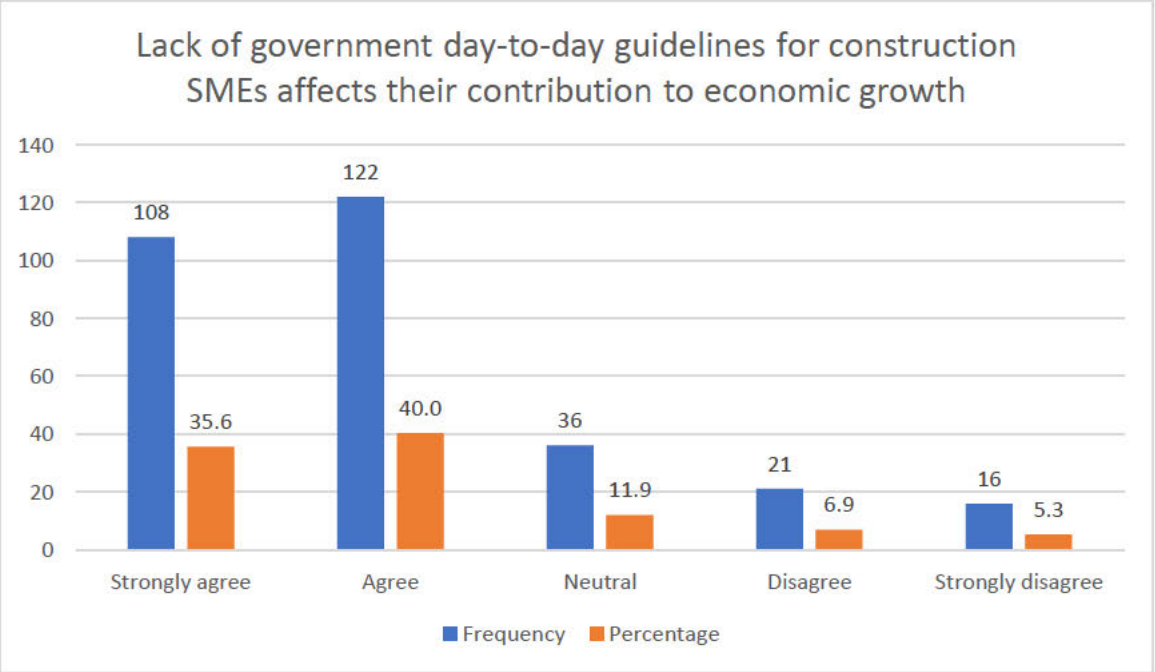

Figure 5.19: Lack of government day-to-day guidelines for construction SMEs affects their contribution to economic growth

The survey respondents were asked to state how likely it is that lack of government day-to-day guidelines for construction SMEs influences their contribution to economic growth. As depicted (Figure 5.17) above, the majority (40 percent) respondents agreed lack of government day-to-day guidelines for construction SMEs affects their contribution to economic growth, while 35.6 percent strongly agreed. A small number (11.9 percent) of respondents remained neutral, with 6.9 percent that disagreed and only 5.3 percent strongly disagreed with the statement. A Chi-square test was conducted for this variable and the results (X^2 = 167.974; df = 4; P < 0.001) show lack of government day-to-day guidelines for construction SMEs influences the contribution to economic growth of these businesses. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These finding are supported by Hosken (2019: 1), who states failure of construction SMEs to contribute to the South African economy can be attributed to poor policies and guidelines. Hence, the Economic Development Department (2007: 7) states major constraints affecting SMEs in the Eastern Cape are lack of access to information and lack of policy and coordination from local government.

5.2.6.2.5 Lack of technical skills workshops or training provided by government institutions affects construction SMEs' contribution to economic growth

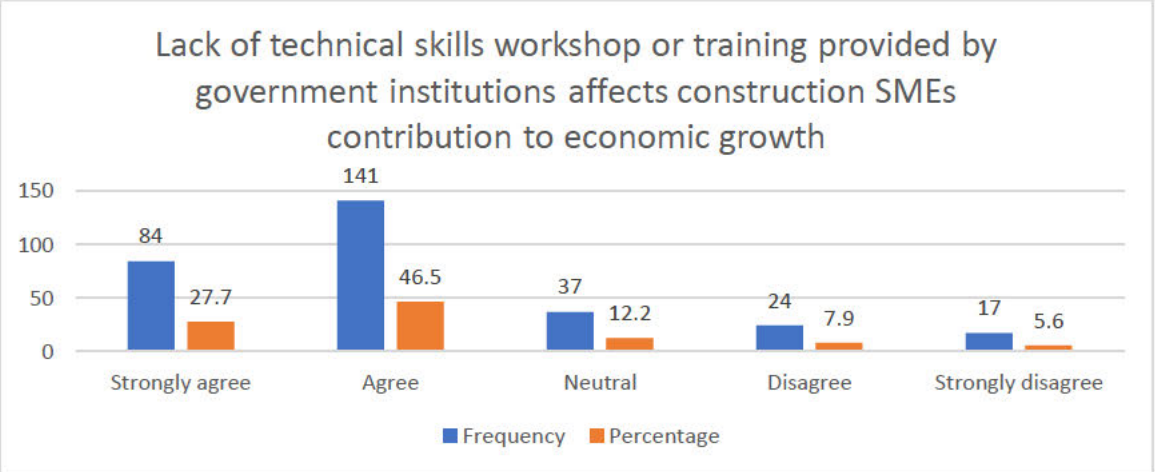

Figure 5.20: Lack of technical skills workshops or training provided by government institutions affects construction SMEs' contribution to economic growth

Technical skills are deemed the lifeline of the construction industry (Offei *et al*. 2019: 60). However, Windapo and Cattell (2013: 67) indicate that although there are many skills supplied to the construction market, in most cases, these skills are not aligned with the needs of the construction sector, which results in a technical skills gap and a decrease in professionalism within the sector. Hence, construction SMEs in SA lack technical skills.

Survey respondents were asked to indicate the likelihood of technical skills workshops or training provided by government institutions influencing their contribution to economic growth. The findings (Figure 5.18) above, show a significant number (46.5 percent) of respondents agreed lack of technical skills workshops or training provided by government institutions affects construction SMEs' contribution to economic growth, while 27.7 percent strongly agreed with the statement. A smaller number (12.2 percent) of respondents remained neutral, with 7.9 percent that disagreed and only 5.6 percent that strongly disagreed with the statement. The results are supported by the Chi-square test results (X^2 = 178.370; df = 4; P < 0.001) for this variable, which reflect the lack of technical skills workshops or training provided by government institutions affects construction SMEs' contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Dapaah *et al.* (2017: 8), who discovered although construction SME programmes developed by government are in place, the implementation of these programmes has not been properly rolled out. Hence, technical skills remain a challenge for construction SMEs (Nyakala 2022: 2).

5.2.6.2.6 Lack of government financial assistance for construction SMEs affects their contribution to economic growth

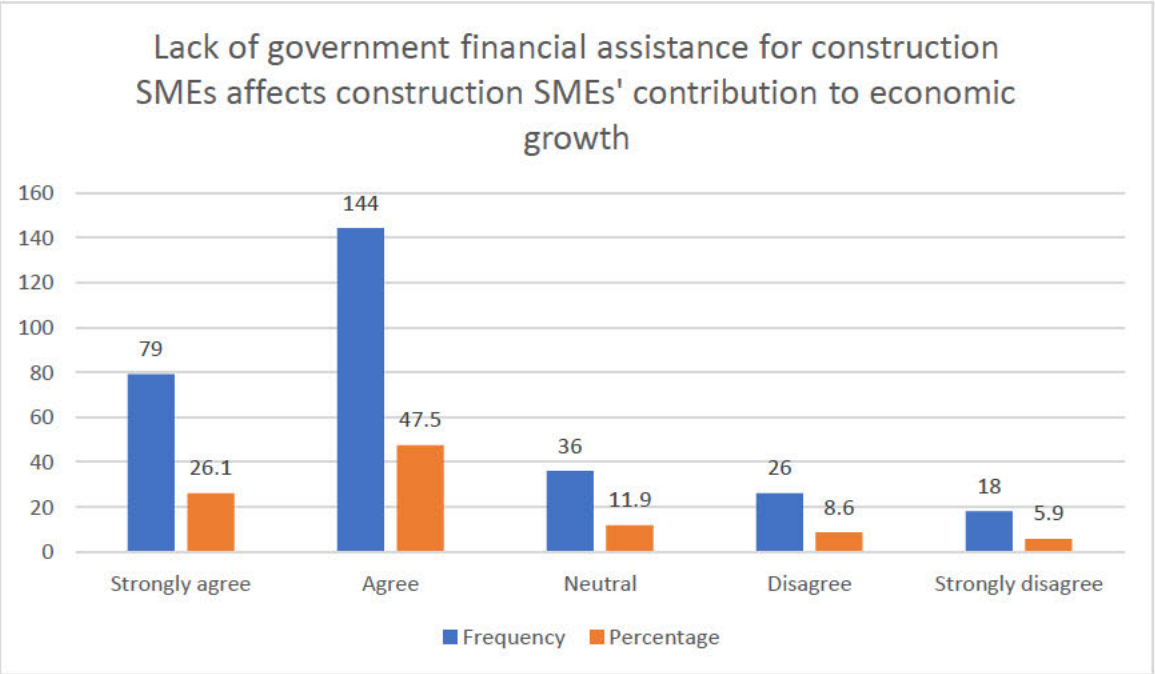

Figure 5.21: Lack of government financial assistance for construction SMEs affects construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely lack of government financial assistance for construction SMEs influences their contribution to economic growth. As depicted (Figure 5.19) above, a significant number (47.5 percent) of respondents agreed lack of government financial assistance for construction SMEs affects their contribution to economic growth, while 26.1percent strongly agreed with the statement, 11. 9percent of the respondents remained neutral, 8.6 percent disagreed and only 5.9percent strongly disagreed with the statement. These findings are supported by the Chi-square test results (X^2 = 180.053; df = 4; P < 0,001) for this variable, showing lack of government financial assistance for construction SMEs influences their contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

The literature endorses these findings, as Asah *et al*. (2020: 2), SEDA (2016: 7) and Wentzel *et al*. (2016: 1478) are of the view the lack of access to government finance remains a common challenge for construction SMEs in SA. Hence, 75 percent of SME owners are not cognisant of the organisations put in place by the South African government for financial support of these firms (Agwa-Ejon and Mbohwa 2015: 3).

5.2.6.2.7 Lack of government incubator programme implementation for construction SMEs affects their contribution to economic growth

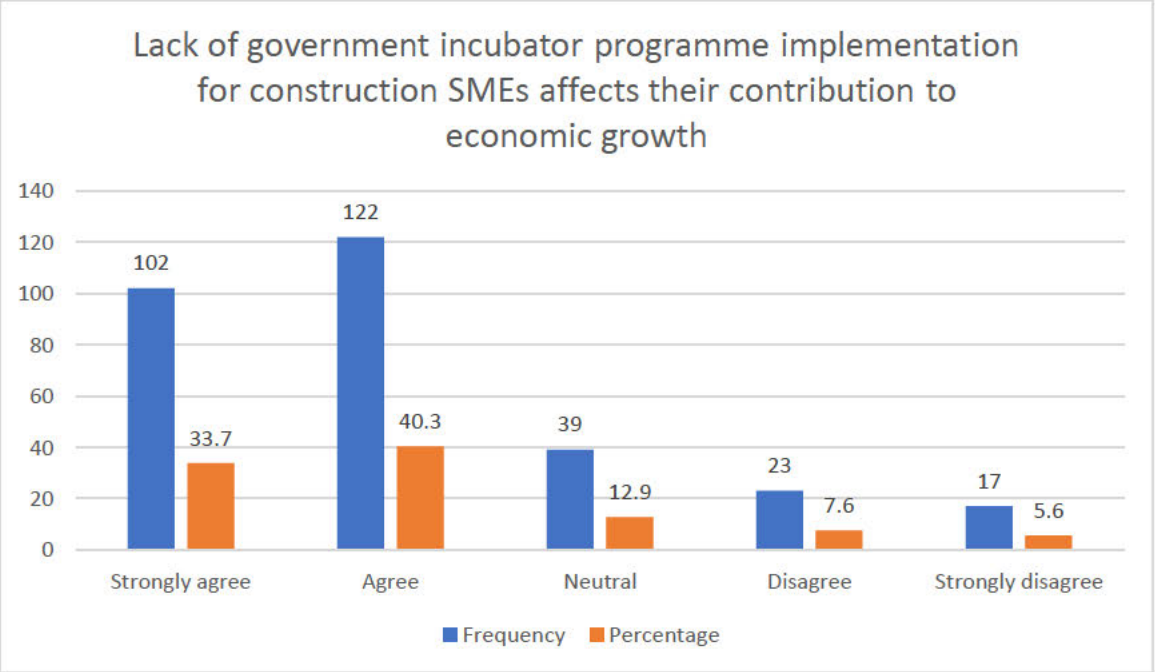

Figure 5.22: Lack of government incubator programme implementation for construction SMEs affects their contribution to economic growth

The survey respondents were asked to state how likely it was the lack of government incubator programme implementation for construction SMEs influences their contribution to economic growth. The findings (Figure 5.20) above clearly show the majority (40.3 percent) respondents agreed lack of government incubator programme implementation for construction SMEs affects their contribution to economic growth, while 33.7percent strongly agreed with the statement, 12.9 percent remained neutral, 7.6 percent disagreed and only 5.6 percent of respondents strongly disagreed with the statement. A Chi-square test was conducted for this variable and the results (X^2 = 152.891; df = 4; P < 0,001) show lack of government incubator programme implementation for construction SMEs influences their contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Dapaah *et al.* (2017: 8), whose study on performance evaluation of construction SME development programmes in SA discovered, although government incubation programmes are in place, the

implementation phase was not rolled out correctly, due to the unavailability of large organisational stakeholders.

5.2.6.2.8 Lack of government budget for construction SME projects affects their contribution to economic growth

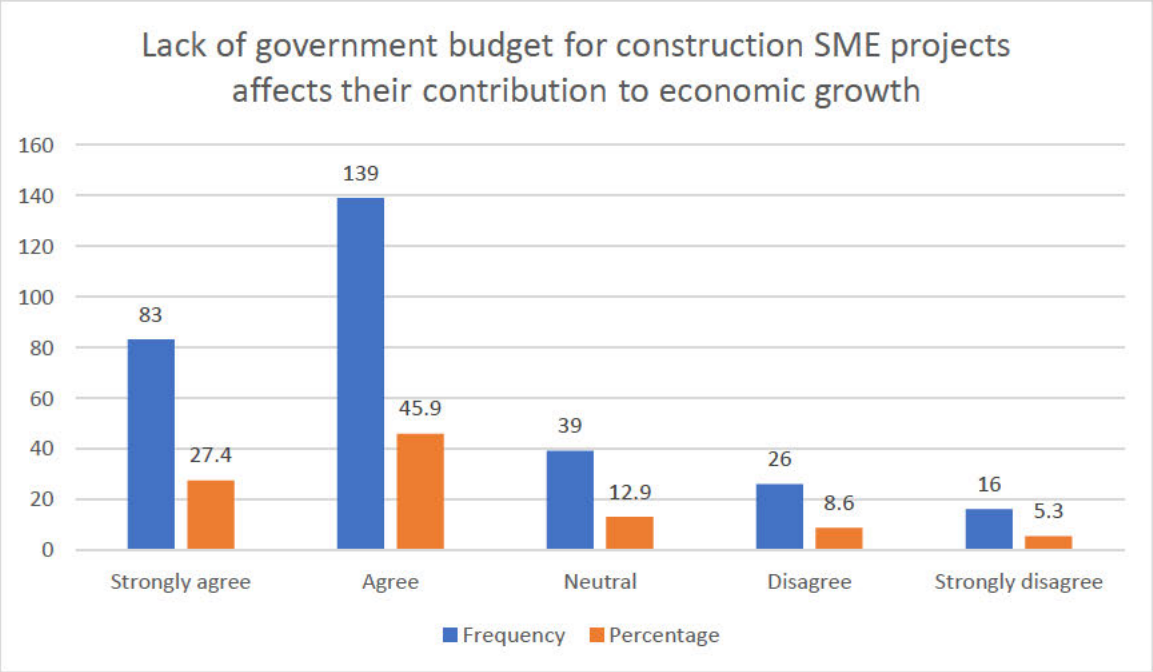

Figure 5.23: Lack of government budget for construction SME projects affects their contribution to economic growth

The survey respondents were asked to state how likely it is that the lack of government budget for construction SME projects influences their contribution to economic growth. As shown (Figure 5.21) above, a significant number (45.9 percent) of respondents agreed lack of government budget for construction SME projects affects their contribution to economic growth, while 27.4 percent of the respondents strongly agreed, 12.9 percent remained neutral, 8.6 percent disagreed and only 5.3 percent strongly agreed with the statement. A Chi-square test was conducted and results (X^2 = 169.987; df = 4; P < 0,001) for this variable, show lack of government budget for construction SME projects does influence their contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are in line with Akinradewo *et al*. (2019: 343), whose study found budget constraints for the construction industry are one of the challenges faced by developing countries.

5.2.6.2.9 Incapacity to spend funds received for construction SME projects affects construction SMEs' contribution to economic growth

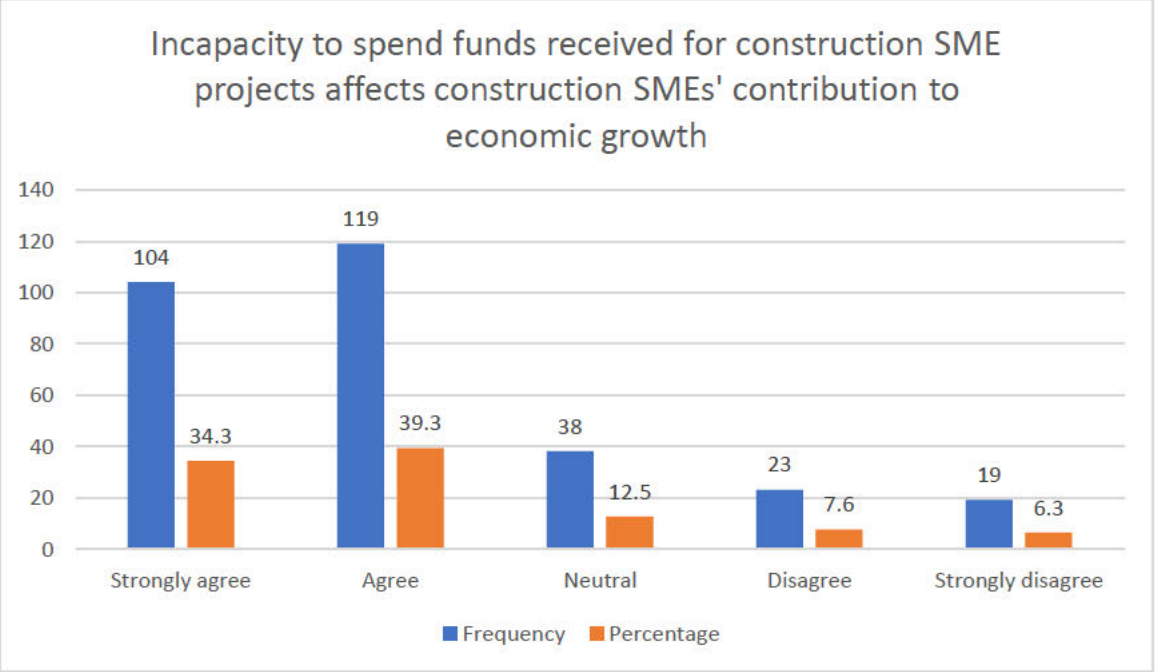

Figure 5.24: Incapacity to spend funds received for construction SME projects affects construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it was for the incapacity to spend funds received for construction SME projects to influence their contribution to economic growth. The findings (Figure 5.22) above reveal a significant number (39.3 percent) of respondents agreed incapacity to spend funds received for construction SME projects affects construction SMEs' contribution to economic growth, while 34.3 percent strongly agreed with the statement, 12.5 percent of respondents remained neutral, 7.6 percent disagreed and only 6.3 percent strongly disagreed with the statement. These findings are supported by the Chi-square test results (X^2 = 147.677; df = 4; P < 0,001) for this variable, which show incapacity to spend funds received for construction SME projects does influence construction SMEs' contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are support by the literature, as Ezebilo *et al*. (2019: 14), Ibrahim *et al*. (2019: 137) and Abed and Gupta (2002: 559) state oversight in spending public funds is a challenge leading to SME failure.

Table 5.5: Component matrix: government support affects the construction SME' contribution to economic growth

Component Matrix[a]

	Component 1
Lack of expertise amongst government officials affect construction SMEs' contribution to economic growth	.728
Lack of government policy support for construction SMEs affects construction SMEs' contribution to economic growth.	.780
Lack of government political will to support construction SMEs affects construction SMEs' contribution to economic growth.	.770
Lack of government day to day guidelines for SMEs construction firms affects construction SMEs' contribution to economic growth.	.759
Lack of technical skills workshop or training provided by government institutions affect construction SMEs' contribution to economic growth.	.791
Lack of government financial assistance for construction SMEs affects construction SMEs' contribution to economic growth.	.831
Lack of government incubator programme implementation for construction SMEs affects construction SMEs' contribution to economic growth.	.804
Lack of government budget for construction SME projects affects construction SMEs' contribution to economic growth.	.805
Incapacity to spend funds received for construction SME projects affects construction SMEs' contribution to economic growth.	.742

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The components indicated (Table 5.4) are a supplementary statistical analysis on the above-mentioned figures (Figure 5.14 to 5.22). The factor analysis measured the underlying constructs of the construct government support. Respondents indicated to one category of component, where a strong positive significance of 0.831 is shown on the statement as to whether lack of government financial assistance affects construction SMEs' contribution to economic growth. In addition, a figure of 0.805 is shown for respondents who indicated that lack of budget for construction SMEs affects their contribution to economic growth.

Another variable on lack of government incubator programme implementation, resulted in the component test showing a positive significance of 0.804, indicating respondents believe lack of government incubator programme implementation affects construction SMEs' contribution to economic growth. Furthermore, the variable regarding lack of technical skills workshops or training provided by government institutions, shows the component test reflecting a positive significance of 0.791, indicating respondents believe lack of technical skills workshops or training provided by government institutions affects construction SMEs' contribution to economic growth.

The other variables, regarding whether the contribution of construction SMEs is affected by lack of government policy support and lack of government political will, showed 0.780 and 0.770, respectively. Moreover, other variables regarding whether the construction SME contribution is affected by lack of government day-to-day guidelines and incapacity to spend funds received for construction SME projects, showed 0.759 and 0.742, respectively. The variable regarding lack of expertise among government officials, when submitted to a component test shows a positive significance of 0.728. It can be seen the component achieved from each matric is close to 1, which indicates the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.3 Influence of business managerial skills on performance of construction SMEs

In this section, construction SMEs were asked to state how likely it is for business managerial skills to influence their performance.

5.2.6.3.1 Poor record keeping by construction SMEs affects their opportunities to obtain credit from financial agencies

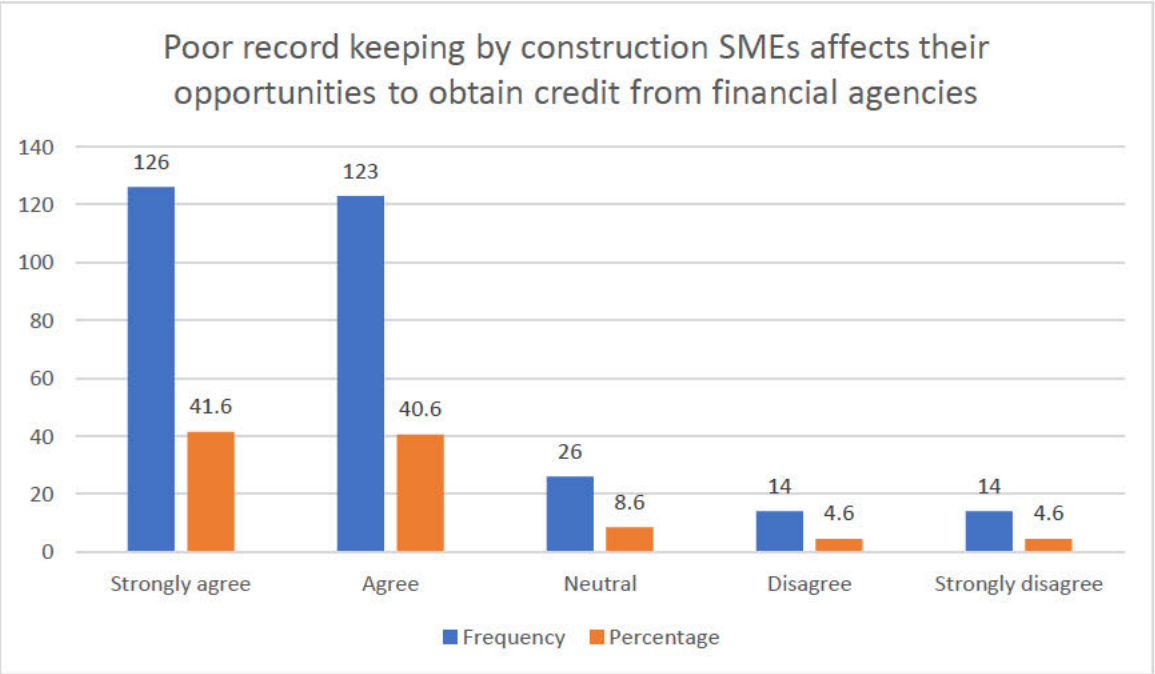

Figure 5.25: Poor record keeping by construction SMEs affects their opportunities to obtain credit from financial agencies

The survey respondents were asked to state the likelihood of poor record keeping by construction SMEs influencing their contribution to economic growth. The findings (Figure 5.23) above reveal a moderate number (41.6 percent) of respondents strongly agreed poor record keeping by construction SMEs affects their opportunities to obtain credit from financial agencies, while 40.6 percent agreed with this, 8.6 percent of the respondents remained neutral with the statement, 4.6 percent disagreed, and 4.6 percent strongly disagreed with this statement. These findings are supported by the Chi-square test results (X^2 = 226.257; df = 4; P < 0,001) for the variable, showing lack of construction SMEs to keep critical records of their business affects their opportunities to obtain credit, which influences their contribution to economic growth. This implies the result for this variable was statically significant and was not due to chance (Appendix 8).

These findings are like those of Thwala and Phaladi (2009: 536) and Lekhanya (2015: 412), who indicated construction SME failure is due to poor record keeping, attributed to management incompetence.

5.2.6.3.2 Lack of monitoring operational activities affects the performance of construction SMEs

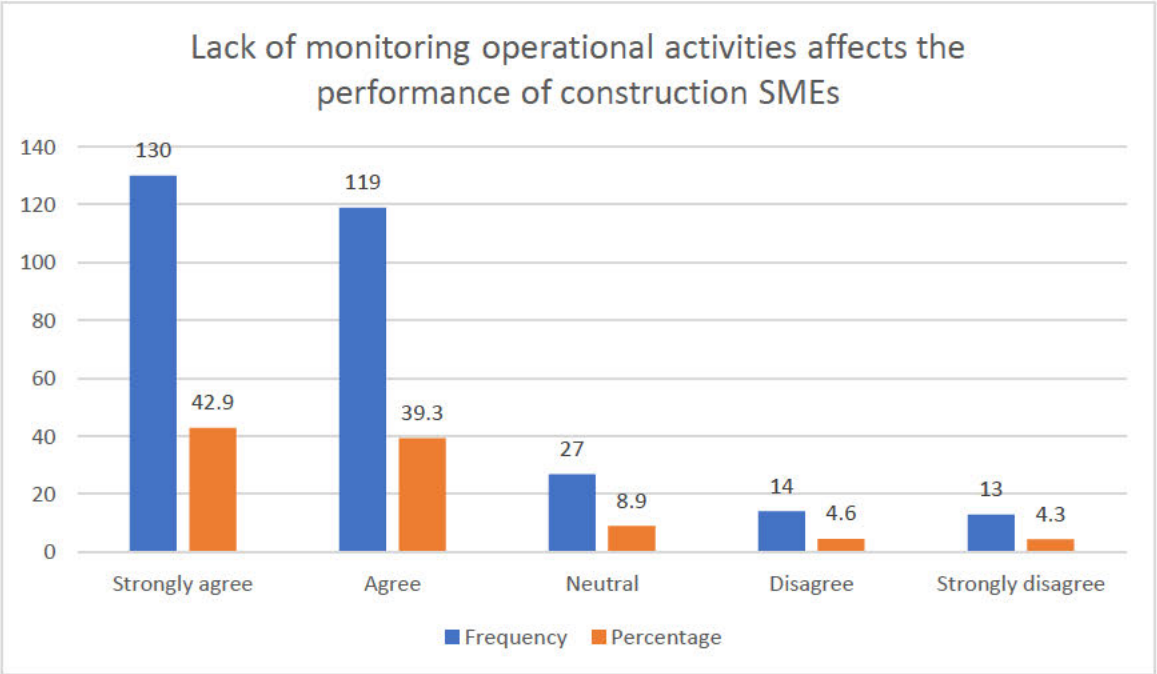

Figure 5.26: Lack of monitoring operational activities affects the performance of construction SMEs

The survey respondents were asked to state the likelihood that lack of monitoring operational activities influences the performance of construction SMEs. As shown (Figure 5.24) above, a significant number (42.9 percent) of respondents strongly agreed and 39.3 percent agreed that lack of monitoring operational activities affects the performance of construction SMEs, 8.9 percent of the respondents remained neutral, 4.6 percent disagreed and only 4.3 percent strongly disagreed with the statement. A Chi-square test was conducted and the results (X^2 = 227.611; df = 4; 0,000) for this variable show construction SME performance is affected by lack of monitoring operational activities. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

5.2.6.3.3 Lack of managerial controls of daily operations of construction SMEs affects their performance

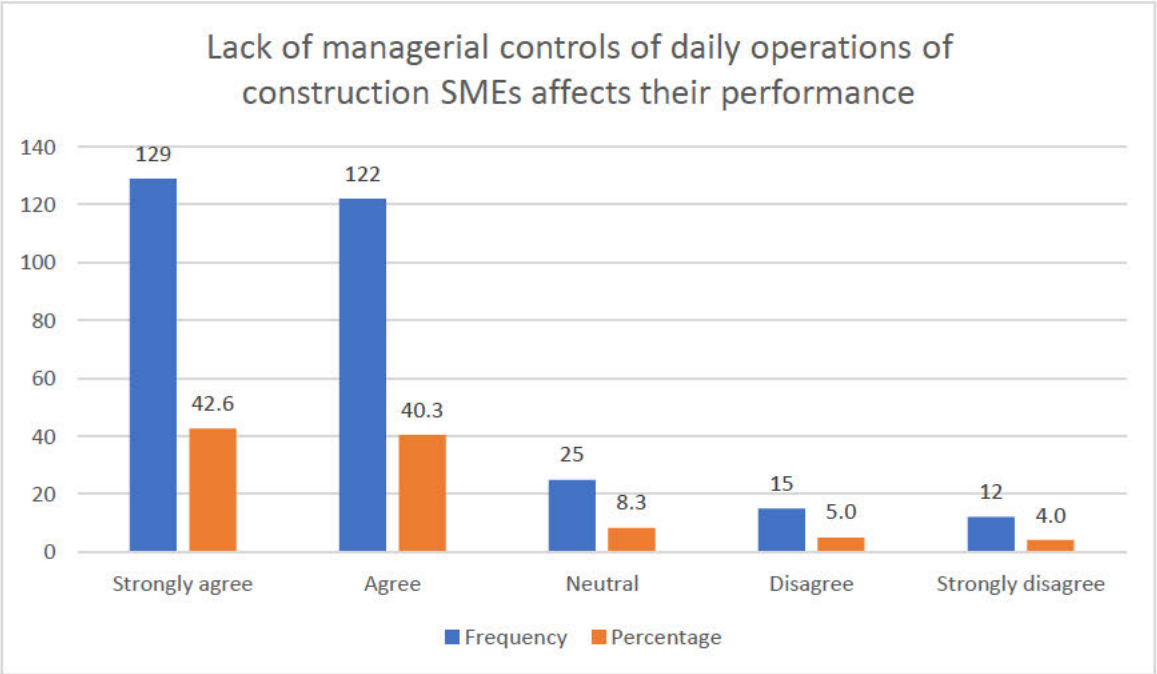

Figure 5.27: Lack of managerial controls of daily operations of construction SMEs affects their performance

The survey respondents were asked to state how likely it is for a lack of managerial controls of the daily construction SME operations influences their performance. As depicted (Figure 5.26) above, a considerable number (42.6 percent) of respondents strongly agreed lack of managerial controls of daily construction SME operations affects their performance, while 40.3 percent agreed, 8.3 percent of respondents remained neutral, five percent disagreed and only four percent disagreed. A Chi-square test was conducted for this variable and the results (X^2 = 233.617; df = 4; P < 0,001) show the lack of managerial controls of daily construction SME operations affects their performance, which influences their contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Eke *et al*. (2015: 1058) and Thwala and Phaladi (2009: 536) who indicated one of the major causes of business failure of small and medium construction firms includes the non-existence of effective management for daily operations during the initial stages of the business.

5.2.6.3.4 Lack of financially managing business funds affects the performance of construction SMEs

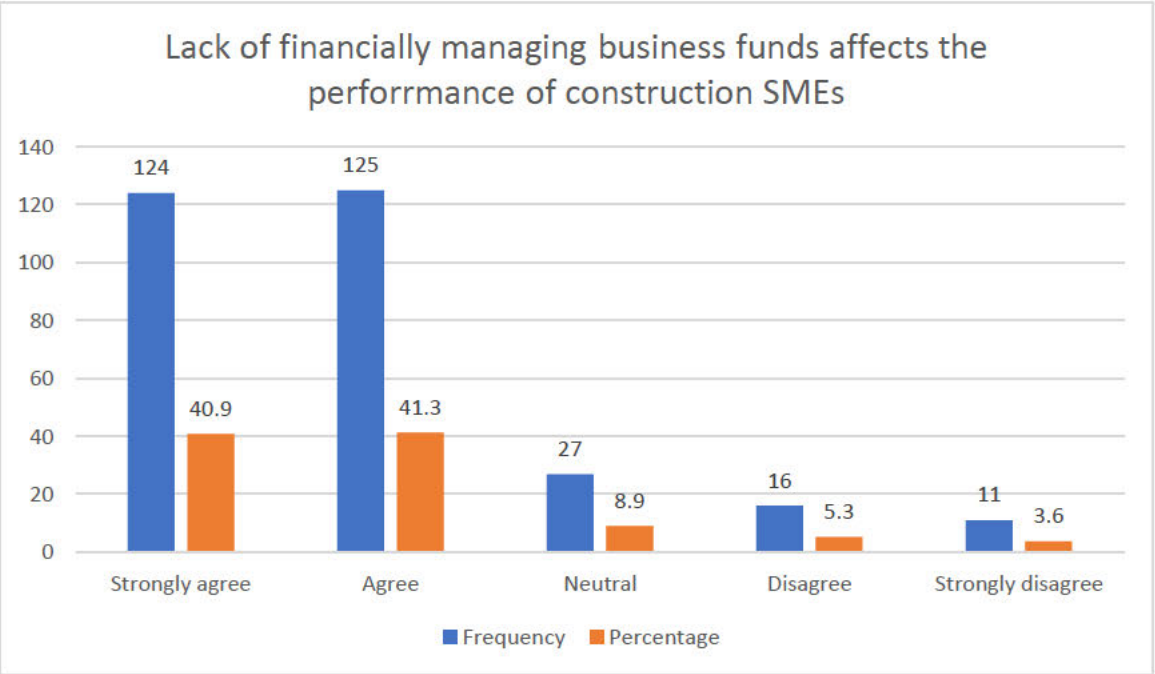

Figure 5.28: Lack of financially managing business funds affects the performance of construction SMEs

The survey respondents were asked to state how likely it is that the lack of financially managing business funds influences the performance of construction SMEs. The results (Figure 5.26) above reveal a significant number (41.3 percent) of respondents agreed and 40.9percent strongly agreed that lack of financially managing business funds affects the performance of construction SMEs, while 8.9 percent of the respondents remained neutral, 5.3 percent disagreed and only 3.6 percent strongly disagreed with the statement. These findings are supported by the Chi-square test results (X^2 = 233.617; df = 4; P < 0,001) for this variable, showing lack of financially managing business funds influences construction SME performance. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings concur with Anzagira *et al*. (2021: 151) and Thwala and Phaladi (2009: 536), who indicated during the start-up of small construction firms, owners are unable to separate between their business and family situations, which results in business funds being used to pay for private expenses, instead of limiting it to payment of business expenses only.

5.2.6.3.5 Lack of marketing tools affects the performance of construction SMEs

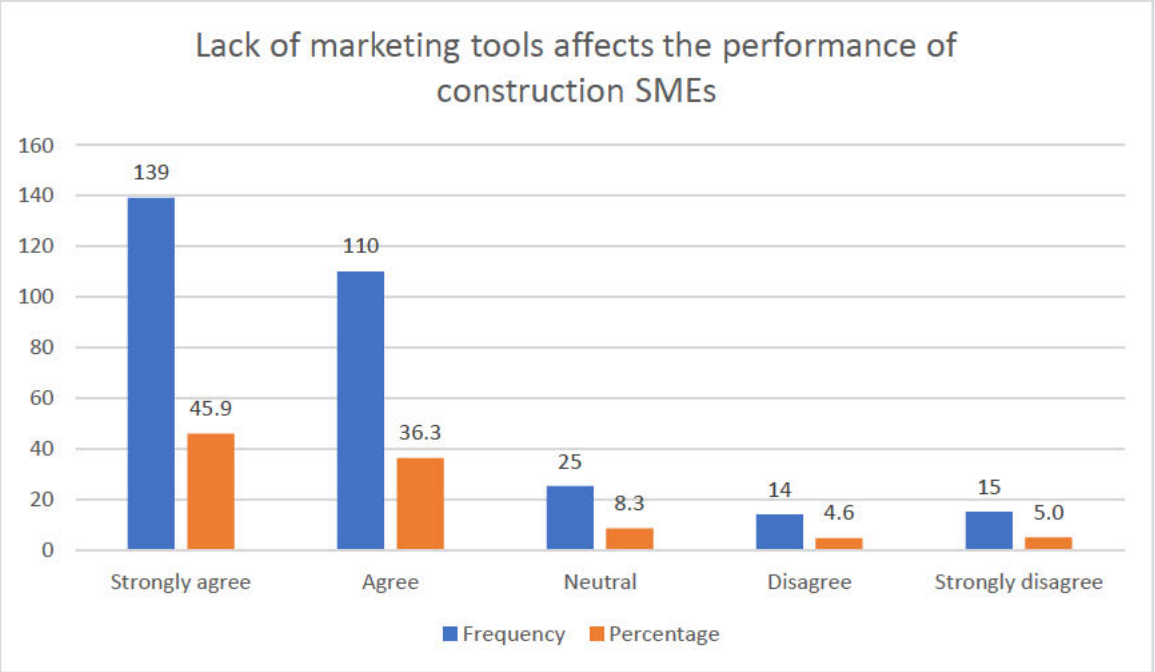

Figure 5.29: Lack of marketing tools affects the performance of construction SMEs

The survey respondents were asked to state how likely it is for a lack of marketing tools to influence the performance of construction SMEs. As depicted (Figure 5.27) above, the majority (45.9 percent) of respondents strongly agreed and 36.3 percent agreed lack of marketing tools affects the performance of construction SMEs, while 8.3 percent was neutral with five percent that strongly disagreed and only 4.6 percent that disagreed with this statement. A Chi-square test was conducted and the results (X^2 = 232.759; df = 4; P < 0,001) for this variable show construction SMEs are affected by lack of marketing tools in their businesses. This implies the result for this variable was statically significant and was not due to chance (Appendix 8).

These findings are supported by Cromhout and Duffett (2022: 3) and Rugova and Prenaj (2016: 86), who found the use of marketing tools such as social media as a low-cost marketing strategy for construction SMEs has not been explored, particularly in developing countries, which negatively influences the growth of these firms.

5.2.6.3.6 Lack of collaboration with local companies affects the performance of construction SMEs

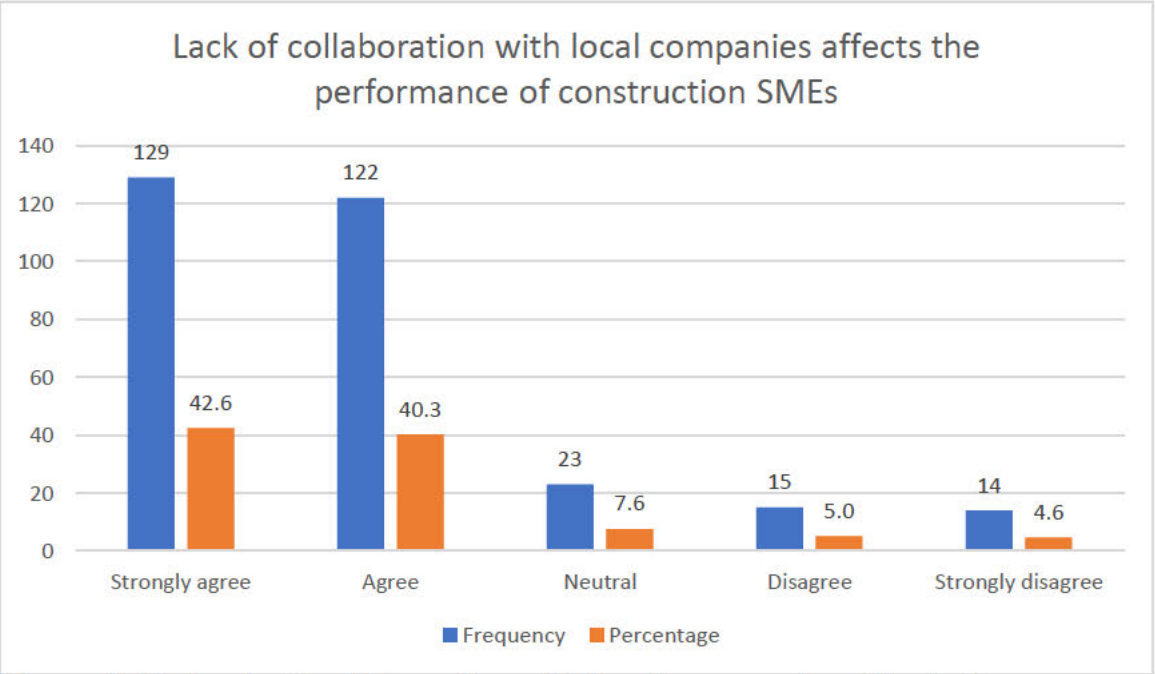

Figure 5.30: Lack of collaboration with local companies affects the performance of construction SMEs

The survey respondents were asked to state the likelihood that the lack of collaboration with local companies influences the performance of construction SMEs. As shown (Figure 5.28) above, the majority (42.6 percent) of respondents strongly agreed and 40.3 percent agreed lack of collaboration with local companies affects the performance of construction SMEs. These findings are supported by the Chi-square results ($X2 = 232.891$; $df = 4$; $P < 0.001$) for this variable, which show the lack of collaboration with local companies affects construction SME performance. This implies the result for this variable was statically significant and not due to chance (Appendix 8). The results indicate there is less support within construction SMEs to give each other advice and share ideas on business growth strategies. However, a smaller group (7.6 percent) of respondents remained neutral, five percent disagreed and only 4.6 percent strongly disagreed with the statement.

5.2.6.3.7 Competition in the construction sector affects the performance of construction SMEs

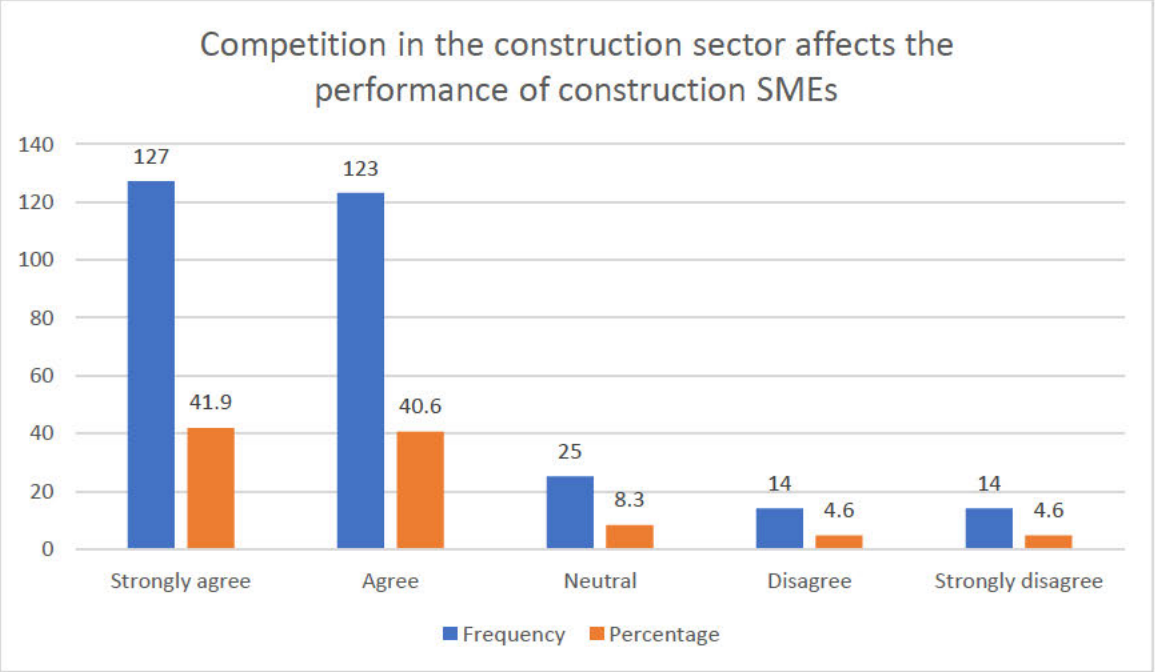

Figure 5.31: Competition in construction sector affects the performance of construction SMEs

The survey respondents were asked to state how likely it is for competition in the construction sector influences the performance of construction SMEs. The findings (Figure 5.29) above show a significant number (41.9 percent) of respondents strongly agreed competition in the construction sector affects the performance of construction SMEs, while 40.6 percent agreed with the statement, 8.3 percent remained neutral, 4.6 percent disagreed as did 4.6 percent that strongly disagreed with the statement. A Chi-square test was conducted and the results (X^2 = 229.591; df = 4; P < 0.001) for this variable show the performance of construction SMEs is affected by competition in the construction sector. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Windapo and Cattell (2013: 67), who indicated competition has a huge impact on the performance of construction SMEs, where construction activities are sometimes given to international construction firms, which deprives local construction SMEs from accessing available projects to enable them to grow.

5.2.6.3.8 Lack of internal auditing by construction SMEs affects their performances

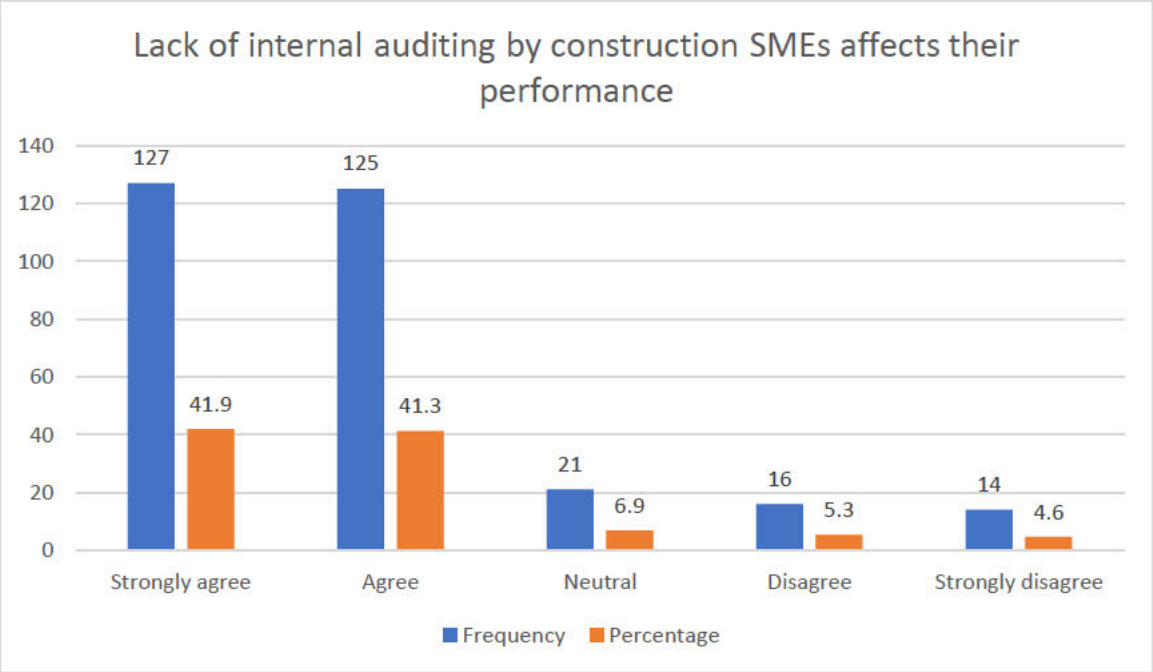

Figure 5.32: Lack of internal auditing by construction SMEs affects their performances

The survey respondents were asked to state how likely it is for the lack of internal auditing by construction SMEs to influence their performance. As depicted (Figure 5.30) above, the overwhelming majority (83.2 percent) respondents agreed lack of internal auditing by construction SMEs affects their performance, 6.9 percent remained neutral, while 5.3 percent disagreed and only 4.6 percent strongly disagreed with the statement. A Chi-square test was conducted, and the results show that (X^2 = 235.729; df = 4; P < 0,001) for this variable, showing the performance of construction SMEs is affected by the lack of internal auditing. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

5.2.6.3.9 Lack of investment by construction SMEs affects their business growth

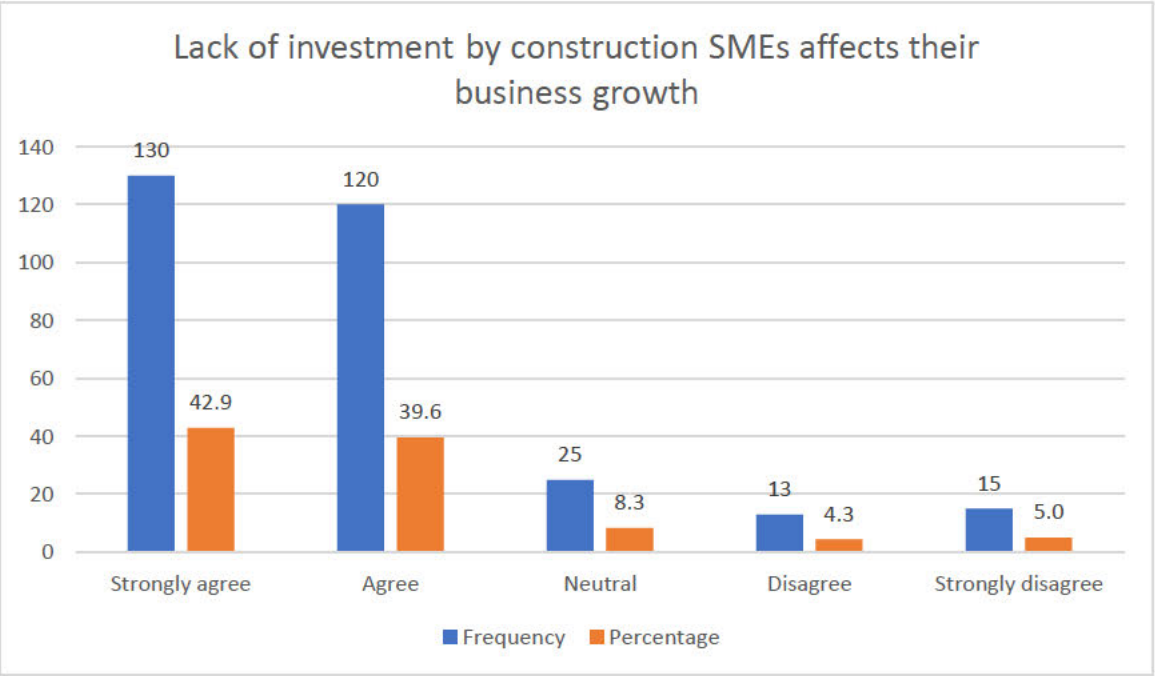

Figure 5.33: Lack of investment by construction SMEs affects their business growth

The survey respondents were asked to state how likely it is that lack of investment by construction SMEs influences their performance. The findings reflected (Figure 5.31) above signify the overwhelming majority (82.5 percent) agreed lack of investment by construction SMEs affects their business growth. A small number (8.3 percent) of respondents remained neutral, while five percent strongly disagreed and only 4.3 percent disagreed. A Chi-square test was conducted and the results (X^2 = 233.617; df = 4; P < 0,001) for this variable show lack of investment by construction SMEs affects their business growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

The literature supports these findings, with Thwala and Phaladi (2009: 536) who argue SA is characterised by a systematic lack of investment in human capital, leading to a biased distribution of crafts skills in the labour force. Hence, Tayeh *et al*. (2019: 56) argue investment in human resources is important for SMEs to improve their operational skills.

Table 5.6: Component matrix: The influence of business managerial skills on the performance of Construction SMEs

Component Matrix[a]

	Component 1
Poor record keeping by construction SMEs affect their opportunities to obtain credit from financial agencies.	.785
Lack of monitoring operational activities affect the performance of the construction SMEs.	.813
Lack of managerial controls of the daily operation of the construction SMEs affect their performance.	.862
Lack of financially managing business funds affects the performance of construction SMEs.	.822
Lack of marketing tools affects the performance of construction SMEs.	.836
Lack of collaboration with local companies affects the performance of construction SMEs	.853
Competition in construction sector affect the performance of construction SMEs	.839
Lack of internal auditing by construction SMEs affect their performances	.776
Lack of investment by construction SMEs affect their business growth.	.783

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The components shown (Table 5.5) above are a supplementary statistical analysis on the findings indicated in above-mentioned figures *(*Figure 5.23 to 5.31*)*. The factor analysis measured the underlying constructs of the business managerial skills construct. Only one category of components was indicated by the respondents, showing all components have a very strong significance. A component test was conducted on the statement pertaining to whether lack of managerial controls of the daily construction SME operations affects their performance, and a strong positive significance of 0.862 was achieved.

A value of 0.853 was achieved for the statement whether lack of collaboration with local companies affects the performance of construction SMEs. Furthermore, a strong value of 0.839 was achieved for the statement whether competition in the construction sector affects the performance of construction SMEs, showing a strong significance. A value of 0.836 was achieved for the statement whether a

lack of marketing tools affects the performance of construction SMEs, showing a strong significance.

In addition, a strong significant value of 0.822 was achieved for the statement whether lack of financially managing business funds affects the performance of construction SMEs. A value of 0.813 was achieved for the statement whether lack of monitoring operational activities affects the performance of construction SMEs. Moreover, a value of 0.785 was achieved for the statement whether poor record keeping by construction SMEs affects their opportunities to obtain credit from financial agencies. For the statement whether lack of investment by construction SMEs affects their business growth, a value of 0.783 was achieved.

Lastly, for the variable regarding whether lack of internal auditing by construction SMEs affects their performance, a value of 0.776 was achieved. It can be seen the component achieved from each matric is close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.4 Influence of entrepreneurial leadership on performance of construction SMEs

In this section, construction SMEs were asked to state how likely it is for entrepreneurial leadership to influence their performance.

5.2.6.4.1 Lack of innovative behaviour affects the performance of construction SMEs

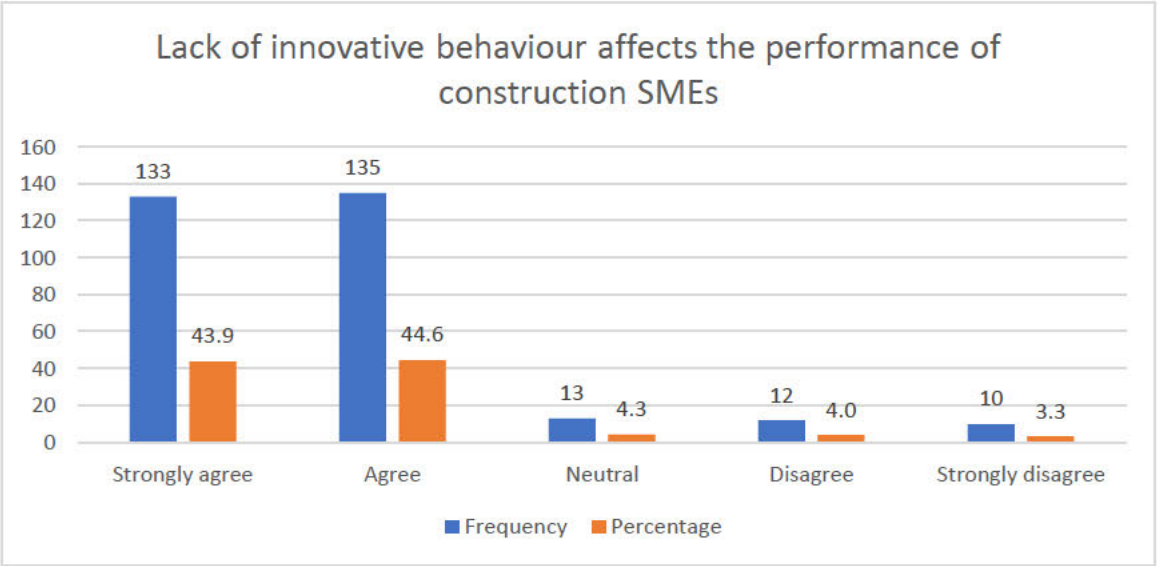

Figure 5.34: Lack of innovative behaviour affects the performance of construction SMEs

The survey respondents were asked to state how likely it is the lack of innovative behaviour influences the performance of construction SMEs. The findings (Figure 5.32) above indicate an overwhelming majority (88,5 percent) respondents agreed the lack of innovative behaviour affects construction SME performance, where 44.6 percent agreed, and 43.9 percent strongly agreed with this. A fewer number of the respondents, 4.3 percent remained neutral, four percent disagreed and only 3.3 percent strongly disagreed with the statement. The above findings are supported by the Chi-square test results (X^2 = 296.455; df = 4; P < 0.001) for this variable, which shows lack of innovative behaviour affects the performance of construction SMEs. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are in line with Mytelka *et al*. (2001: 130), who state SMEs do not take advantage to be innovative due to the associated business risk, consequently missing great opportunities. Öney-Yazýcý and Acar (2006: 438) assert construction SMEs need to use innovative methods to survive in the market, where bidding prices are concerned.

5.2.6.4.2 Lack of proactive behaviour affects construction SMEs' performance

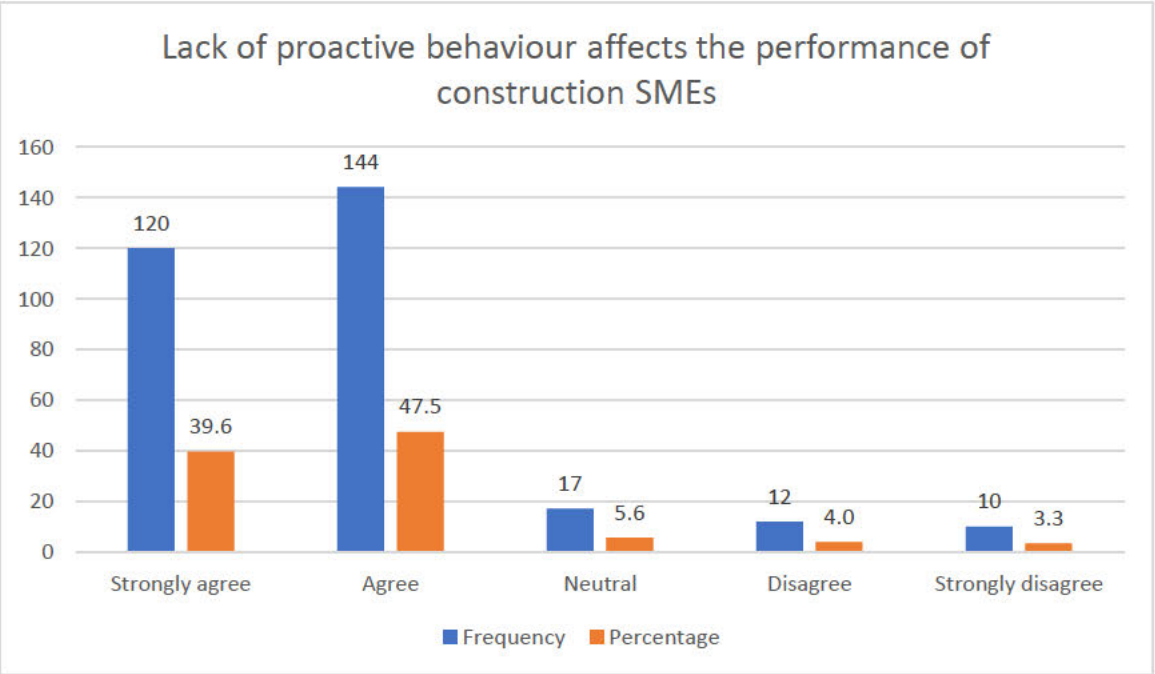

Figure 5.35: Lack of proactive behaviour affects the performance of construction SMEs

The survey respondents were asked to state how likely it is the lack of proactive behaviour influences the performance of construction SMEs. As depicted (Figure 5.33) above, a significant number (47.5 percent) of respondents agreed and 39.6 percent strongly agreed the lack of proactive behaviour affects the performance of construction SMEs, while 5.6 percent remained neutral, four percent disagreed and only 3.3 percent strongly disagreed with the statement. A Chi-square test was conducted and the results ($X2 = 285.597$; $df = 4$; $P < 0{,}001$) for this variable show the performance of construction SMEs is affected by the lack of proactive behaviour. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Mngeni (2015: 7), who discovered poor performance of SMEs is linked to lack of entrepreneurial leadership.

5.2.6.4.3 Lack of risk-taking behaviour affects the performance of construction SMEs

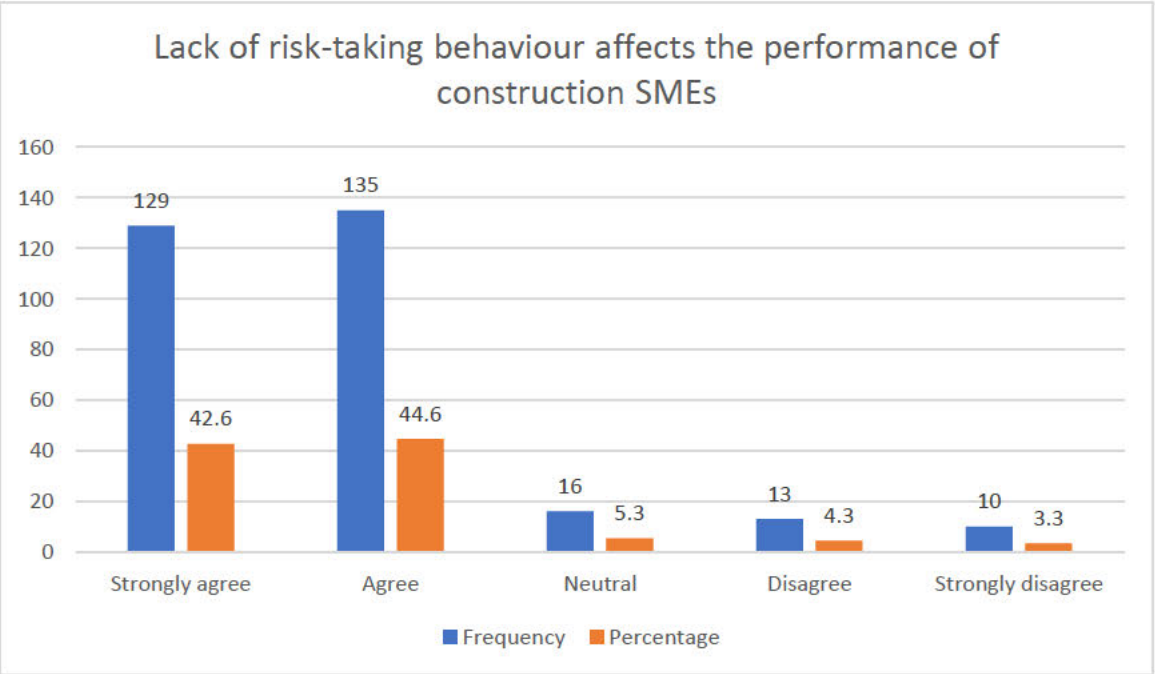

Figure 5.36: Lack of risk-taking behaviour affects the performance of construction SMEs

The survey respondents were asked to state how likely it is that a lack of risk-taking behaviour influences the performance of construction SMEs. The findings (Figure 5.34) above show an overwhelming majority (87.2 percent) agreed lack of risk-taking behaviour affects the performance of construction SMEs, where 44.6 percent agreed and 42.6 percent strongly agreed, 5.3 percent remained neutral, 4.3 percent disagreed and only 3.3 percent strongly disagreed with the statement. A Chi-square test was conducted and the results ($X^2 = 281.010$; df = 4; P < 0,001) for this variable show the lack of risk-taking behaviour by construction SMEs affects their performance, which influences their contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These finding are confirmed by Baah-Mintah *et al*. (2018: 143), who found the lack of entrepreneurial skills such as risk-taking behaviour is a threat to the performance and success of construction SMEs. Soomro *et al*. (2019: 4) state entrepreneurs can achieve risk taking behaviour through entrepreneurial leadership.

5.2.6.4.4 Lack of technical skills affects the performance of construction SMEs

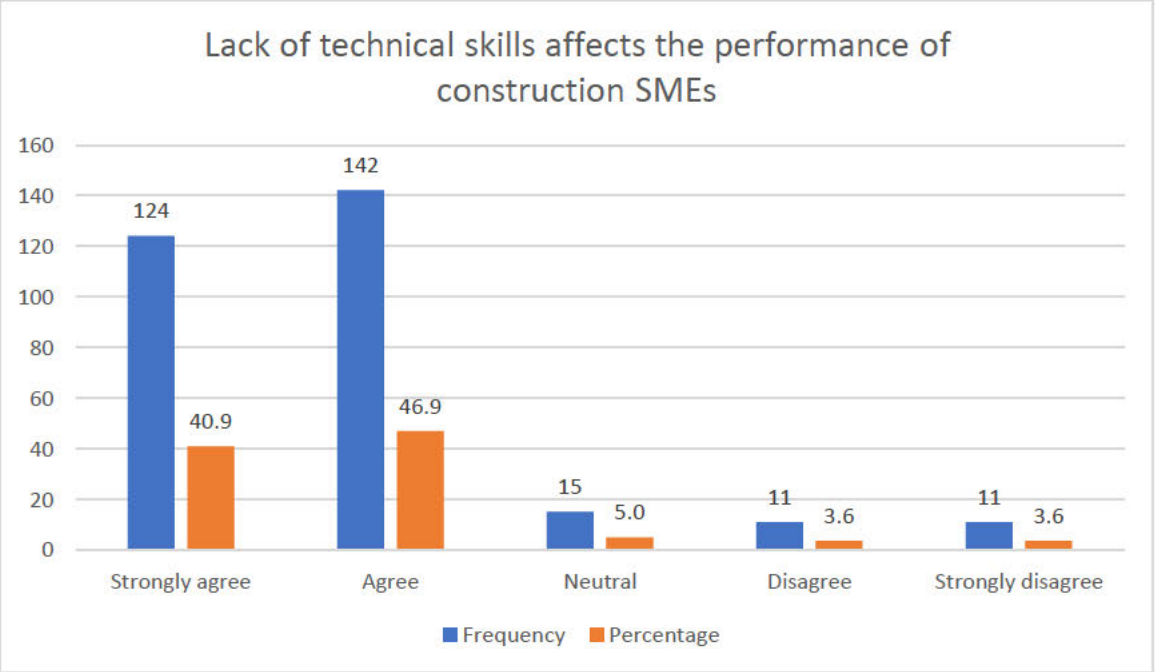

Figure 5.37: Lack of technical skills affects the performance of construction SMEs

The survey respondents were asked to state how likely it is that a lack of technical skills influences the performance of construction SMEs. As shown (Figure 5.35) above, an overwhelming majority (87.8 percent) respondents agreed lack of technical skills affects the performance of construction SMEs, with 46.9 percent that agreed and 40.9 percent strongly agreed, five percent remained neutral, 3.6 percent disagreed, and another 3.6 percent strongly disagreed with the statement. These findings are supported by a Chi-square test done to determine whether lack of technical skills affects the performance of construction SMEs. The results show that ($X2 = 291.175$; $df = 4$; $P < 0.001$) for this variable, indicating the knowledge of the respondents is valid. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by the literature, as Nyakala (2022: 8); Offei *et al.* (2019: 49) and Aigbavboa and Thwala (2014: 771) confirmed technical skills is the main challenge facing construction SMEs, leading to poor quality of work and loss of profits by these firms.

5.2.6.4.5 Lack of contractual skills affects the performance of construction SMEs

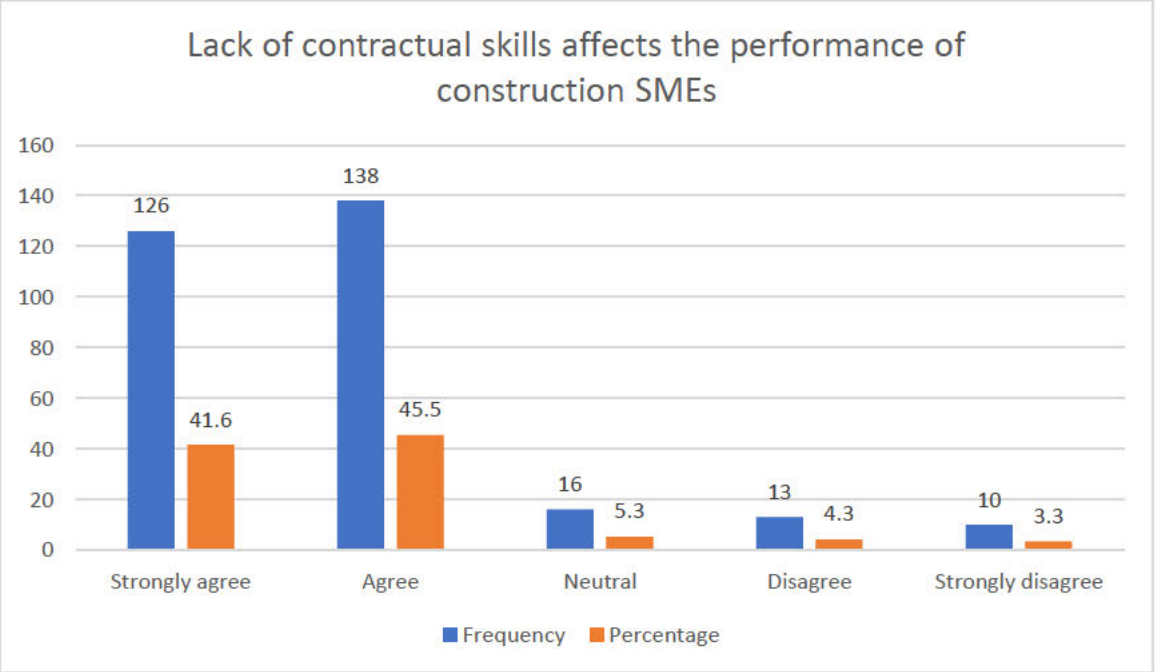

Figure 5.38: Lack of contractual skills affects the performance of construction SMEs

The survey respondents were asked to state how likely it is for a lack of contractual skills to influence the performance of construction SMEs. As revealed (Figure 5.38) above, an overwhelming majority (87percent) respondents agreed lack of contractual skills affects the performance of construction SMEs, where 45.5 percent agreed and 41.6 percent strongly agreed, while 5.3 percent remained neutral, 4.3 percent disagreed and only 3.3 percent strongly disagreed with this statement. A Chi-square test was conducted and the results ($X^2 = 281.908$; $df = 4$; $P < 0.001$) for this variable show the lack of contractual skills by construction SMEs has a significant impact on their performance. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

This agrees with Nyakala (2022: 8), who found contractual skills are a critical challenge faced by construction SMEs, particularly with regard to road initiative projects.

5.2.6.4.6 Lack of leadership abilities affects the performance of construction SMEs

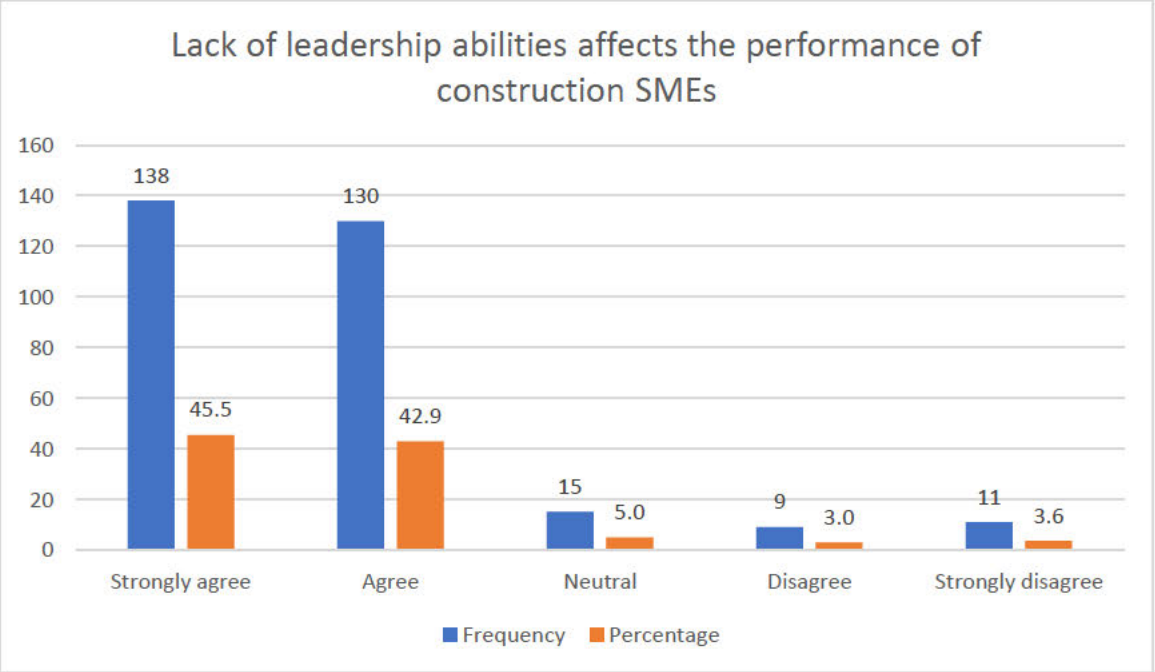

Figure 5.39: Lack of leadership abilities affects the performance of construction SMEs

The survey respondents were asked to state how likely it is that lack of leadership abilities influences the performance of construction SMEs. As depicted (Figure 5.37) above, an overwhelming majority (88.4 percent) respondents agreed lack of leadership abilities affects the performance of construction SMEs, with 45.5 percent strongly agreed and 42.9 percent agreed, while five percent remained neutral, 3.6 percent strongly disagreed and only three percent disagreed with this statement. These findings are supported by a Chi-square test conducted to determine whether lack of leadership abilities affects the performance of construction SMEs. The results show that (X^2 = 297.182; df = 4; P < 0.001) for this variable, reflecting that lack of leadership abilities by construction SMEs affects their performance. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are support by a study conducted by Sogaxa *et al*. (2021: 121), who discovered previous failure of construction SMEs is primarily caused by lack of leadership and unsuitable leadership capabilities in the SME sector.

Madanchian and Taherdoost (2017: 240) argue there is enough evidence on linking the performance of SMEs to the leadership style of the leader. Hence, Kocherbaeva *et al*. (2019: 89) advocate that construction SMEs must prioritise the development of leadership skills of employees who have an ability to fill influential positions in the business or organisation.

5.2.6.4.7 Failure to set clear strategic goals for growth affects the performance of construction SMEs

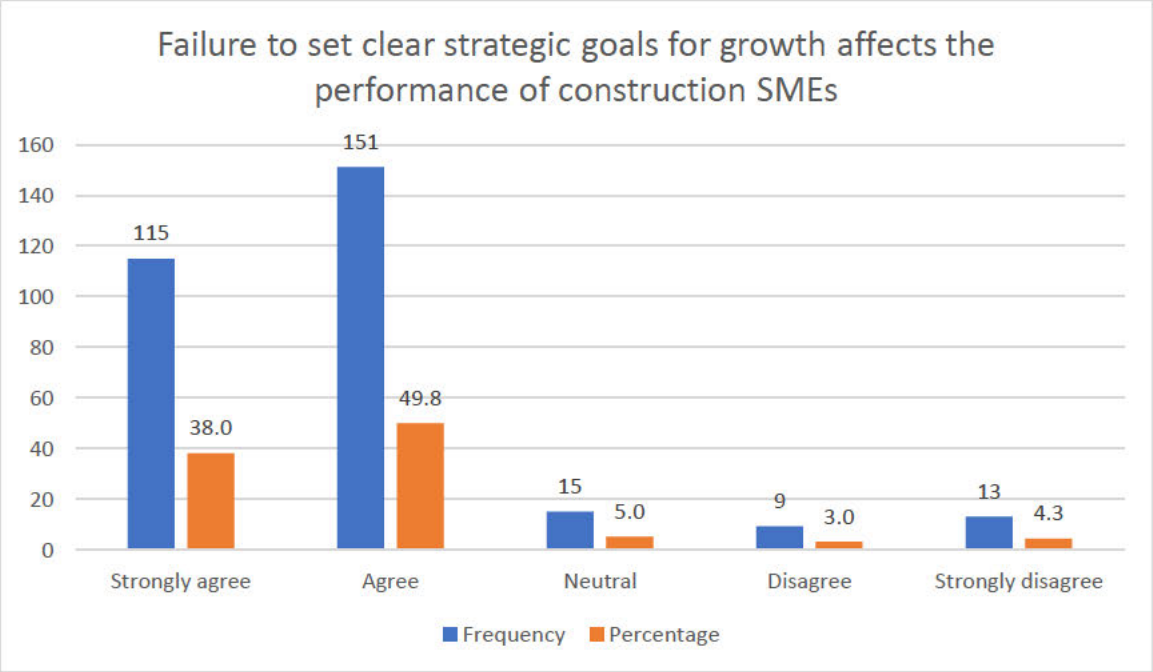

Figure 5.40: Failure to set clear strategic goals for growth affects the performance of construction SMEs

The survey respondents were asked to state the likelihood that failure to set clear strategic goals for growth influences the performance of construction SMEs. As revealed (Figure 5.38) above, an overwhelming majority (87.8 percent) respondents agreed failure to set clear strategic goals for growth affects the performance of construction SMEs, with 49.8 percent that agreed and 38 percent strongly agreed, five percent remained neutral, while 4.3 percent strongly disagreed and only three percent disagreed with this statement. A Chi-square test was conducted and the results (X^2 = 297.182; df = 4; P < 0.001) for this variable show failure to set clear strategic goals by construction SMEs for growth purposes

affects their performance. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

Wentzel *et al*. (2016: 1483) support these findings, as their study discovered the failure of construction SMEs has been accelerated by the lack of entrepreneurial skills, which was proved by their inability to set strategic goals and inability to plan forward actions.

Table 5.7: Component matrix: The influence of entrepreneurial leadership on the performance of Construction SMEs

Component Matrix[a]

	Component 1
Lack of innovative behaviour affects the performance of construction SMEs	.789
Lack of proactive behaviour affects the performance of construction SMEs	.780
Lack of risk-taking behaviour affects the performance of construction SMEs	.825
Lack of technical skills affects the performance of construction SMEs	.853
Lack of contractual skills affects the performance of construction SMEs.	.819
Lack of leadership abilities affects the performance of construction SMEs	.810
Failure to set clear strategic goals for growth affect the performance of construction SMEs.	.783

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

A component matrix test was conducted as an additional statistical analysis to show different components (Table 5.6) on the influence of entrepreneurial leadership on construction SME performance. The factor analysis measured the underlying constructs of the entrepreneurial leadership construct. Only one category of components was indicated by the respondents, showing all components have a very strong significance, where a value of 0.853 was achieved for the statement whether lack of technical skills affects the performance of construction SMEs.

Another variable on whether lack of risk-taking behaviour affects the performance of construction SMEs showed a strong significance, with a value of 0.825. Furthermore, a strong value of 0.819 was achieved for the statement whether lack of contractual skills affect the performance of construction SMEs, showing a strong significance. A strong significance with a value of 0.810 was achieved for the statement whether lack of leadership abilities affects the performance of construction SMEs. In addition, a value of 0.789 was achieved for the statement whether lack of innovative behaviour by construction SMEs affects their performance.

On the other variables, whether failure to set clear strategic goals for growth affects the performance of construction SMEs and lack of proactive behaviour affects the performance of construction SMEs, showed a value of 0783 and 0.780, respectively. It can be seen the component achieved from each matric is close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.5 Influence of shortage of skills on the construction SMEs' contribution to economic growth

In this section, construction SMEs were asked to state how likely it is for the shortage of skills to influence their contribution to economic growth.

5.2.6.5.1 Discrepancy between skills needed by the construction sector and what is available in the labour market

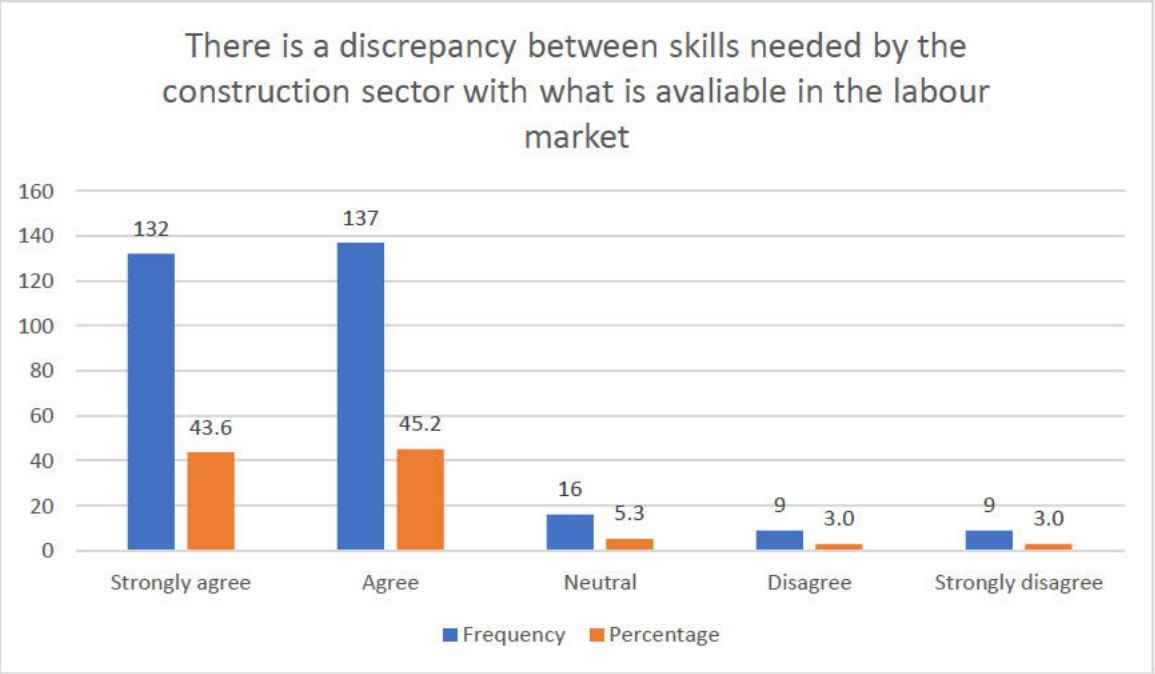

Figure 5.41: Discrepancy between skills needed by the construction sector and what is available in the labour market

The survey respondents were asked their perception on whether there is a discrepancy between the skills needed by the construction sector, with what is available in the labour market. The findings (Figure 5.39) above reveal an overwhelming majority (88.8 percent) respondents agreed there is a discrepancy between the skills needed by the construction sector with what is available in the labour market, while 45.2 percent agreed and 43.6 percent strongly agreed, 5.3 percent remained neutral, three percent disagreed and another three percent strongly disagreed with this statement. The findings are supported by the Chi-square test results ($X^2 = 301.142$; $df = 4$; $P < 0.001$) for this variable, which show a discrepancy exists between the skills needed by the construction sector with what is available in the labour market. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Windapo and Cattell (2013: 74) who revealed one of the key factors affecting the performance of the construction sector is the mismatches between available and required skills in the market. Offei *et al.* (2019: 60) state this challenge of a skills gap results in the construction SMEs recruiting employees who do not have technical skills, thus, affecting the performance of construction SMEs.

5.2.6.5.2 Construction SMEs struggle to recruit people with relevant expertise

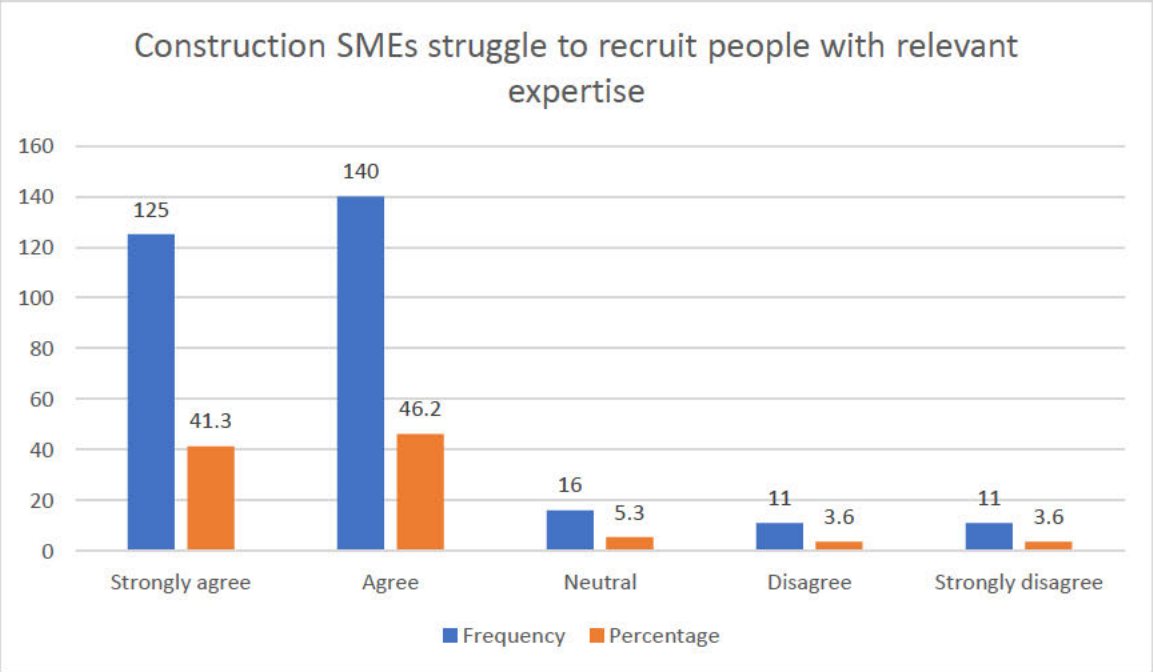

Figure 5.42: Construction SMEs struggle to recruit people with relevant expertise

The survey respondents were asked their perception on whether construction SMEs struggle to recruit people with relevant expertise. As depicted (Figure 5.40) above, an overwhelming majority (87.5 percent) respondents agreed construction SMEs struggle to recruit people with relevant expertise, with 46.2 percent that agreed and 41.3 percent that strongly agreed, while 5.3 percent remained neutral, 3.6 percent disagreed, and another 3.6 percent also strongly disagreed with this statement. A Chi-square was conducted to confirm the findings and the results (X^2 = 286.488; df = 4; P < 0.001) for this variable show construction SMEs struggle to recruit people with relevant expertise. This implies the result for this variable was statically significant and not due to chance (Appendix 8). The findings are supported by Lawani *et al*. (2022: 1), who confirm companies struggle to recruit workers due to insufficient skills.

5.2.6.5.3 Skills shortages in the construction sector affect the contribution of construction SMEs to economic growth

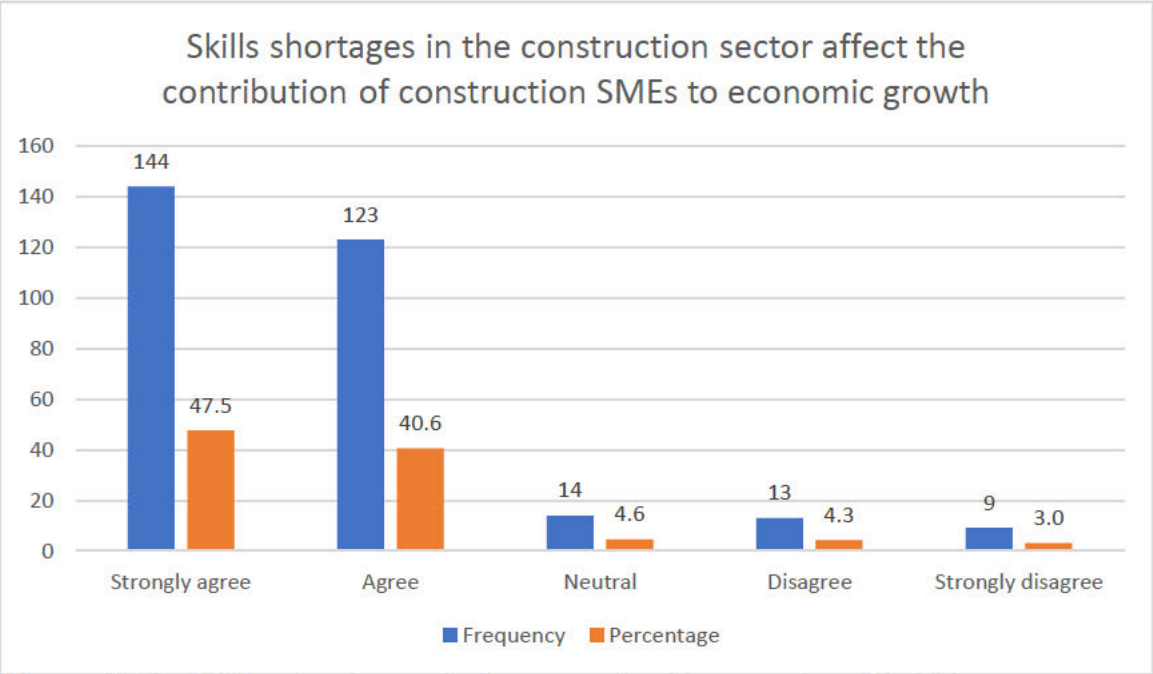

Figure 5.43: Skills shortages in the construction sector affect the contribution of construction SMEs to economic growth

The survey respondents were asked their perception on whether skills shortages in the construction sector influence the contribution of construction SMEs to economic growth. The findings (Figure 5.41) above show an overwhelming majority (88.1 percent) respondents agreed skills shortages in the construction sector impact the contribution of construction SMEs to economic growth, with 47.5 percent that strongly agreed and 40.6 percent that agreed, while 4.6 percent of the respondents remained neutral, 4.3 percent disagreed and only three percent strongly disagreed with the statement. A Chi-square test was conducted and the results ($X^2 = 296.191$; $df = 4$; $P < 0.001$) for this variable reveal skills shortages in the construction sector have a significant influence on the contribution of construction SMEs to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Silva *et al*. (2018: 76) and Rasool and Botha (2011: 1), who established a major problem associated with skills shortages in the construction sector, is that it results in poor performance and low productivity levels.

5.2.6.5.4 Construction SME failure to provide training and development of workers causes skills shortages in the SME construction sector

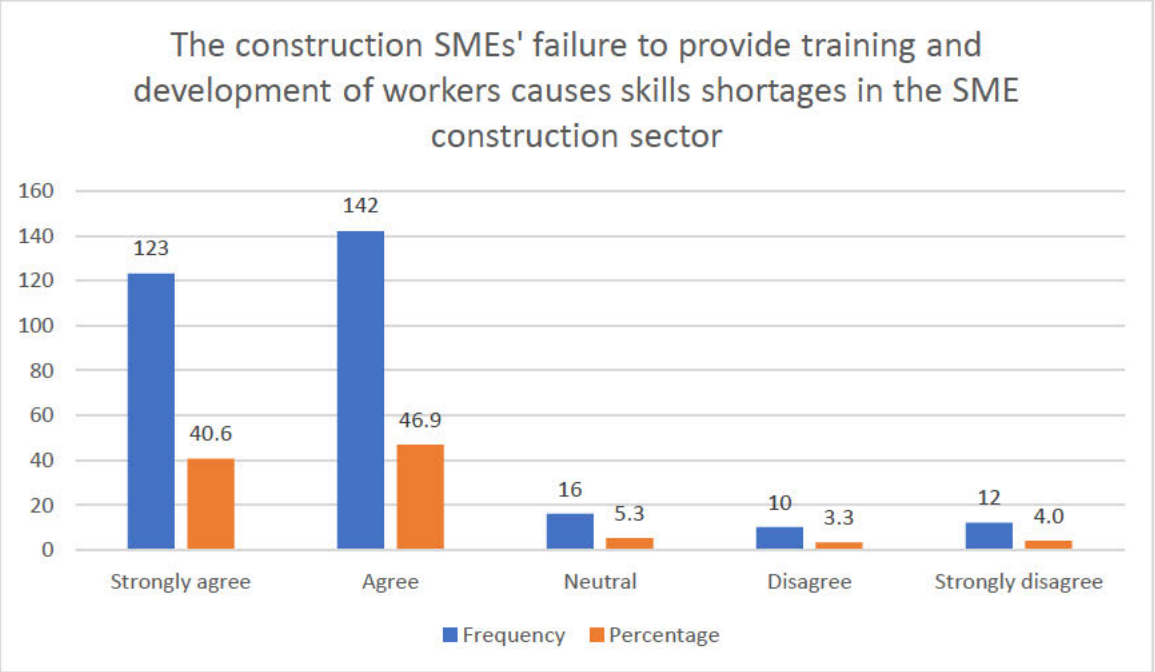

Figure 5.44: Construction SME failure to provide training and development of workers causes skills shortages in the SME construction sector

The survey respondents were asked their perception on whether construction SMEs' failure to provide training and development of workers causes skills shortages in the SME construction sector. As depicted (Figure 5.42) above, an overwhelming majority (87.5 percent) respondents agreed the construction SMEs' failure to provide training and development of workers causes skills shortages in the SME construction sector, with 46.9 percent that agreed and 40.6 percent that strongly agreed, while 5.3 percent remained neutral, four percent strongly disagreed and only 3.3 percent disagreed with the statement. The results are supported by the Chi-square test results (X^2 = 287.644; df = 4; P < 0.001) for this variable, which show construction SMEs' failure to provide training and development of workers causes skills shortages in the SME construction sector. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings agree with Windapo *et al*. (2020: 424), who argue many business owners and managers of construction SMEs do not appreciate the need to

improve employees' skills, partly because of the high costs associated with training and advisory services but, mostly, because many entrepreneurs are content with the skills they already have in their firms. Hence, Aigbavboa and Thwala (2014: 777) recommended construction SMEs should invest more in training of their employees.

Table 5.8: Component matrix: The influence of shortage of skills on the construction SMEs' contribution to economic growth

Component Matrix[a]

	Component 1
There is a discrepancy between the skills needed by the construction sector with what is available in the labour market	.803
Construction SMEs struggle to recruit people with relevant expertise.	.858
Skills shortages in the construction sector affects the contribution of construction SMEs to economic growth.	.852
The construction SMEs failure to provide training and development of workers causes skills shortages in the SME construction sector	.854

Extraction Method: Principal Component Analysis.
a. 1 component extracted.

A component test was done, and results are shown (Table 5.7) as an additional statical analysis on the above-mentioned figures (Figures 5.39 to 5.42). The factor analysis measured the underlying constructs of the construct: shortage of skills. Only one category of components was indicated by the respondents, showing all components have a very strong significance; where a value of 0.858 was achieved for the statement whether construction SMEs struggle to recruit people with relevant expertise. While on the statement whether the construction SMEs' failure to provide training and development of workers causes skills shortages in the SME construction sector, a value of 0.854 was achieved.

On the other variables, whether skills shortages in the construction sector affect the contribution of construction SMEs to economic growth, and there is a

discrepancy between the skills needed by the construction sector with what is available in the labour market, a value of 0.852 and 0.803 was achieved, respectively. It can be seen the component achieved from each matric is close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.6 Influence of financial barriers on construction SMEs' contribution to economic growth

In this section, construction SMEs were asked to state how likely it is for financial barriers to influence their contribution to economic growth.

5.2.6.6.1 Lack of access to loans from financial institutions affects construction SMEs' contribution to economic growth

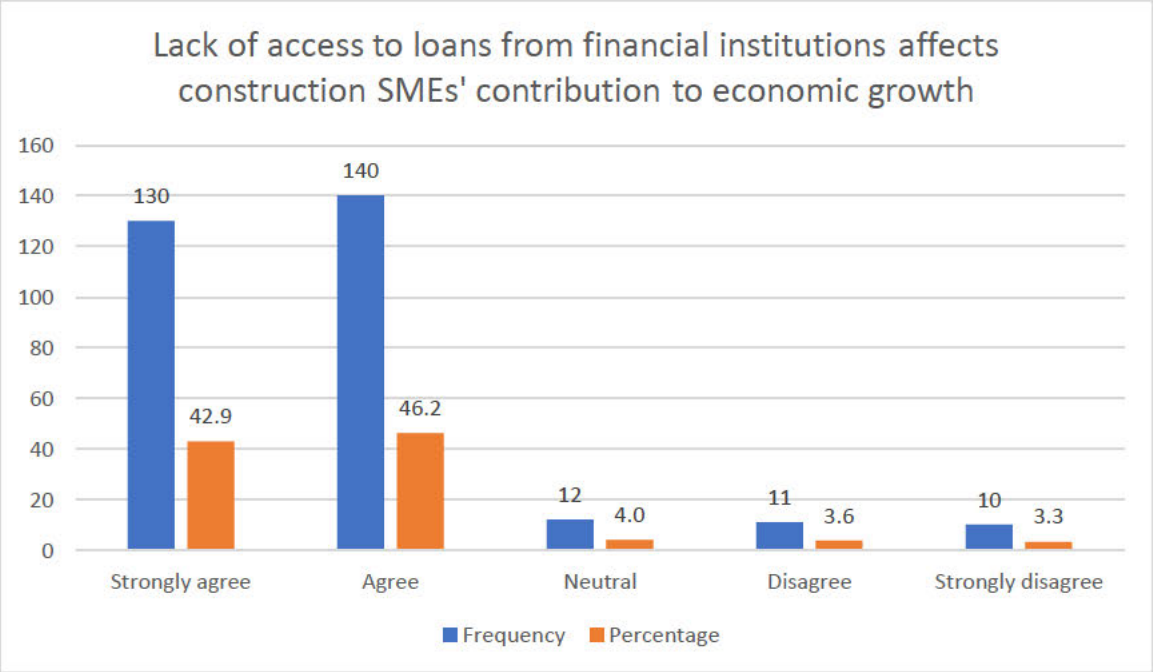

Figure 5.45: Lack of access to loans from financial institutions affects construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it is for a lack of access to loans from financial institutions to influence the contribution of construction SMEs to economic growth. The findings (Figure 5.43) above show an overwhelming majority (89.1 percent) respondents agreed lack of access to loans from financial institutions affect construction SMEs' contribution to economic growth, with 46.2

percent that agreed and 42.9 percent that strongly agreed, while for percent of respondents remained neutral, 2.6 percent disagreed and only 3.3 percent strongly disagreed. A Chi-square test was conducted and the results (X^2 = 305.333; df = 4; P < 0.001) for this variable reveal respondents believe the lack of access to loans from financial institutions affects construction SMEs' contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are confirmed by Oyelana and Fiseha (2014: 676), who found the majority construction SMEs are unable to increase their contribution to socio-economic development, due to their lack of access to loans. Asah and Louw (2021: 2) discovered only 25 percent of SMEs in SA was approved by the banks for a loan and 75 percent of applications by SMEs for bank credit was rejected.

5.2.6.6.2 Collateral security requirements of accessing finance from lending institutions affect construction SMEs' contribution to economic growth

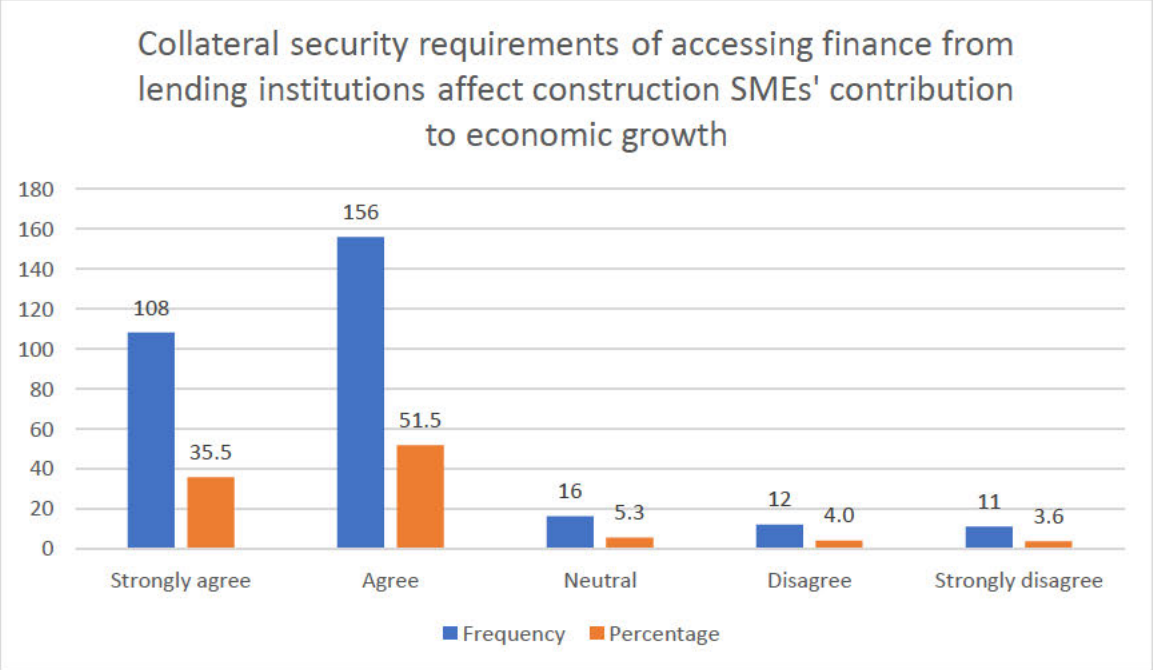

Figure 5.46: Collateral security requirements of accessing finance from lending institutions affect construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it is for collateral security requirements of accessing finance from lending institutions to influence the

contribution of construction SMEs to economic growth. As depicted (Figure 5.44) above, an overwhelming majority (87 percent) respondents agreed collateral security requirements of accessing finance from lending institutions affect construction SMEs' contribution to economic growth, with 51.5 percent that agreed and 35.5 percent strongly agreed, while 5.3 percent remained neutral, four percent disagreed, and 3.6 percent strongly disagreed with this statement. A Chi-square test was conducted and the results (X^2 = 299.657; df = 4; P < 0.001) for this variable show collateral security requirements of accessing finance from lending institutions affect the construction SMEs' contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

Literature supports these findings, as the study by Asah *et al.* (2020: 7) discovered lack of appetite by private financial institutions to provide credit to SMEs, is due to these firms not having collateral security. Therefore, proper access to finance by construction SMEs will improve their growth opportunities and contribution to economic growth (Kamau and Nguni 2014: 51).

5.2.6.6.3 High interest rates charged on loans by creditors affect construction SMEs' contribution to economic growth

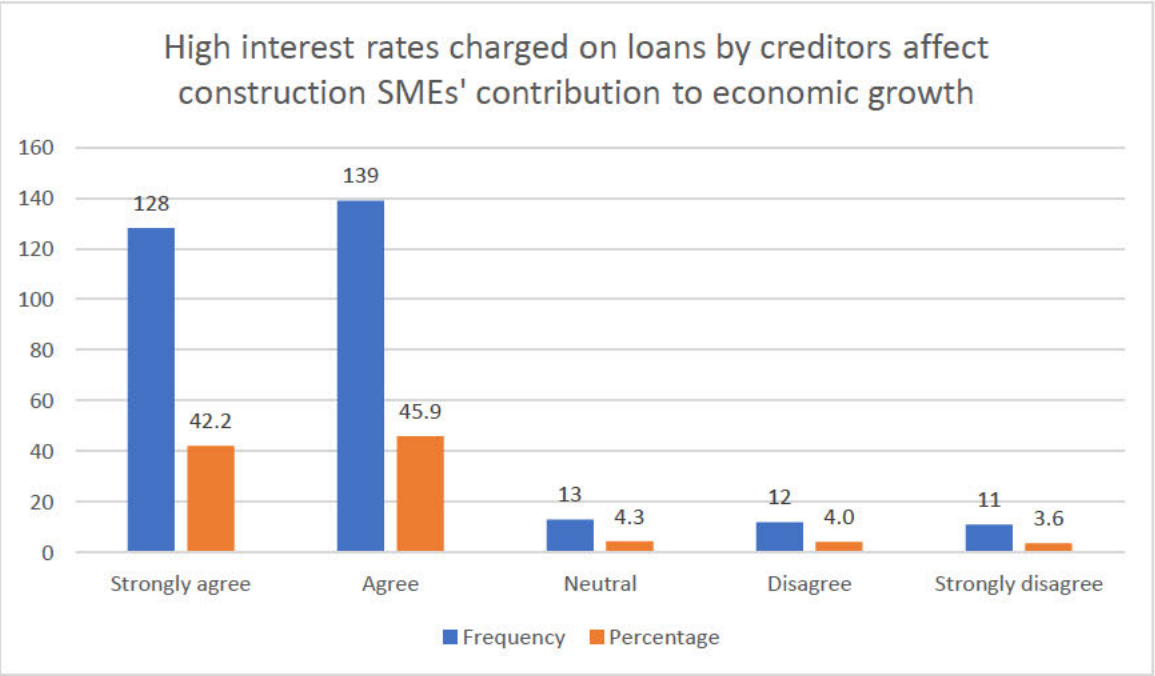

Figure 5.47: High interest rates charged on loans by creditors affect construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it is high interest rates charged on loans by creditors influence the contribution of construction SMEs to economic growth. As revealed (Figure 5.45) above, an overwhelming majority (88.1 percent) respondents agreed high interest rates charged on loans by creditors affect construction SMEs' contribution to economic growth, with 45.9 percent that agreed and 42.2 percent that strongly agreed, while 4.3 percent of respondents remained neutral, four percent disagreed and only 3.6 percent strongly disagreed with this statement. To confirm these findings, a Chi-square test was conducted and the results (X^2 = 293.353; df = 4; P < 0.001) for this variable reveal the contribution of construction SMEs is affected by high interest rates charged on loans by creditors. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by the literature, where Asah *et al*. (2020: 3), Mutezo (2013: 153) and Ansary and Agumba (2018: 521) discovered high interest rates escalate the costs of doing business by SMEs, which reduce profit margins and nullify the merits of obtaining external funding, consequently affecting their contribution to economic growth. Hence, Kissi and Badu (2018: 366) suggest government must develop SME policies that will lessen the impact of high interest rates.

5.2.6.6.4 Inability to obtain credit facilities from suppliers affects construction SMEs' contribution to economic growth

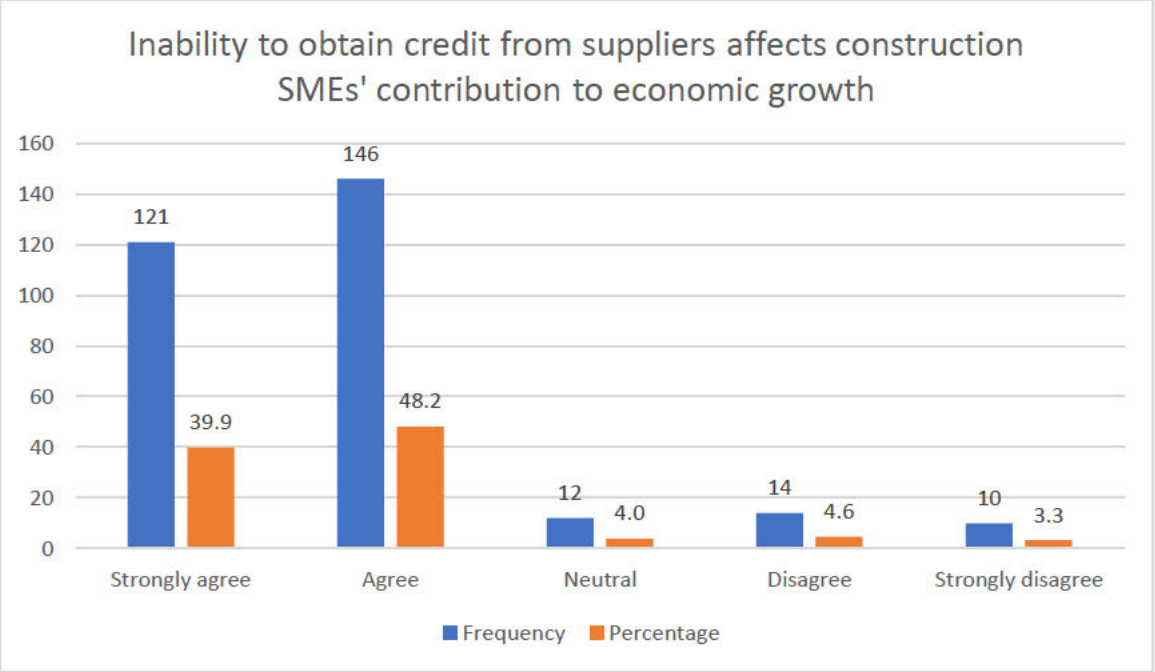

Figure 5.48: Inability to obtain credit facilities from suppliers affects construction SMEs' contribution to economic growth

The survey respondents were asked to state the likelihood of the inability to obtain credit facilities from suppliers influencing the contribution of construction SMEs to economic growth. The findings (Figure 5.46) show an overwhelming majority (88.1 percent) of the respondents agreed that the inability to obtain credit facilities from suppliers affects construction SMEs' contribution to economic growth, with 48.2 percent that agreed and some 39.9 percent that strongly agreed, while four percent of the respondents remained neutral, 4.6 percent disagreed and only 3.3 percent strongly disagreed. A Chi-square test was conducted and the results ($X2 = 297.611$; $df = 4$; $P < 0.001$) for this variable show the inability to obtain credit facilities from suppliers affects construction SMEs' contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

According to Ansary and Agumba (2018: 521) and Eyiah *et al.* (2018: 28), lack of cashflow by construction SMEs is one of the factors that hinder these businesses

in obtaining credit from suppliers, which affects their contribution to economic growth.

Table 5.9: Component matrix: The influence of financial barriers on construction SMEs' contribution to economic growth

Component Matrix[a]

	Component 1
Lack of access to loans from financial institutions affect the construction SMEs' contribution to economic growth.	.912
Collateral security requirements of accessing finance from lending institutions affect the construction SMEs' contribution to economic growth.	.920
High interest rates charged on loans by creditors affect construction SMEs' contribution to economic growth.	.922
Inability to obtain credit facilities from suppliers affect construction SMEs' contribution to economic growth.	.927

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The components indicated (Table 5.8) are an additional statistical analysis of the above-mentioned figures (Figure 5.43 to 5.46). The factor analysis measured the underlying constructs of the construct: financial barriers. A component test was done on the influence of financial barriers on construction SMEs' contribution to economic growth. Respondents indicated only on one category of component, showing a strong positive significance of 0.927 on the statement whether inability to obtain credit facilities from suppliers affects construction SMEs' contribution to economic growth. While a strong positive significance value of 0.922 is shown for respondents who indicated construction SMEs' contribution to economic growth is affected by high interest rates charged on loans by creditors, a strong positive significance was also achieved on other variables.

Regarding whether construction SMEs' contribution to economic growth is affected by collateral security requirements of accessing finance from lending institutions and lack of access to loans from financial institutions, these showed 0.920 and 0.912, respectively. Therefore, the above tested variables showed a very strong significance on influence of financial barriers on construction SMEs' contribution to economic growth. It can be seen the component achieved from each matric is very

close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.7 Influence of technology infrastructure on the construction SMEs' contribution to economic growth

In this section, construction SMEs were asked to state how likely it is that technology infrastructure influences their contribution to economic growth.

5.2.6.7.1 Lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth

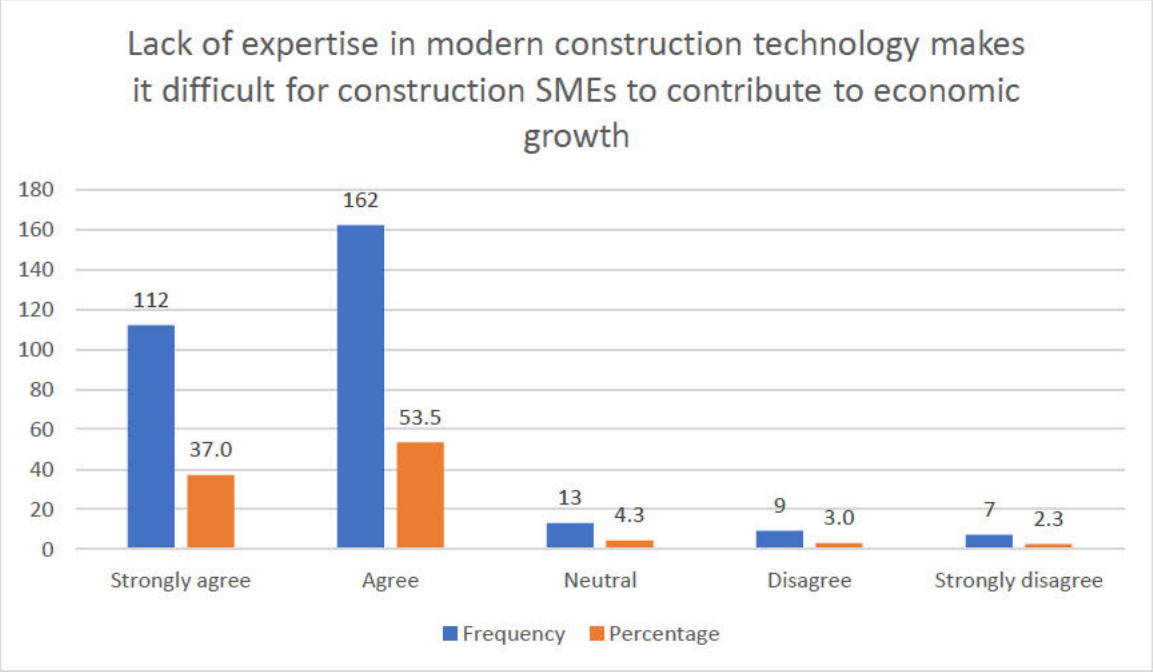

Figure 5.49: Lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth

The survey respondents were asked to state how likely it is the lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth. As shown (Figure 5.47) above, an overwhelming majority (90.5 percent) respondents agreed lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth, with 53.5 percent that agreed and 37 percent that strongly agreed, while 4.3 percent of the respondents remained neutral, three percent

disagreed and only 2.3 percent strongly disagreed. To confirm the results, a Chi-square test was conducted and the results (X^2 = 342.000; df = 4; P < 0.001) for this variable show the lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Odubiyi *et al*. (2019: 5) and Mogos *et al*. (2019: 628), who established lack of digitalisation by SMEs in modern technology such as IR 4.0 affects their business performance. Hence, Cherian and Kumaran (2016: 1) argue use of modern technology has the greatest potential of increasing productivity for the construction sector and, in turn, increase their contribution to economic growth.

5.2.6.7.2 High technological costs make it difficult for construction SMEs to improve performance to contribute to economic growth

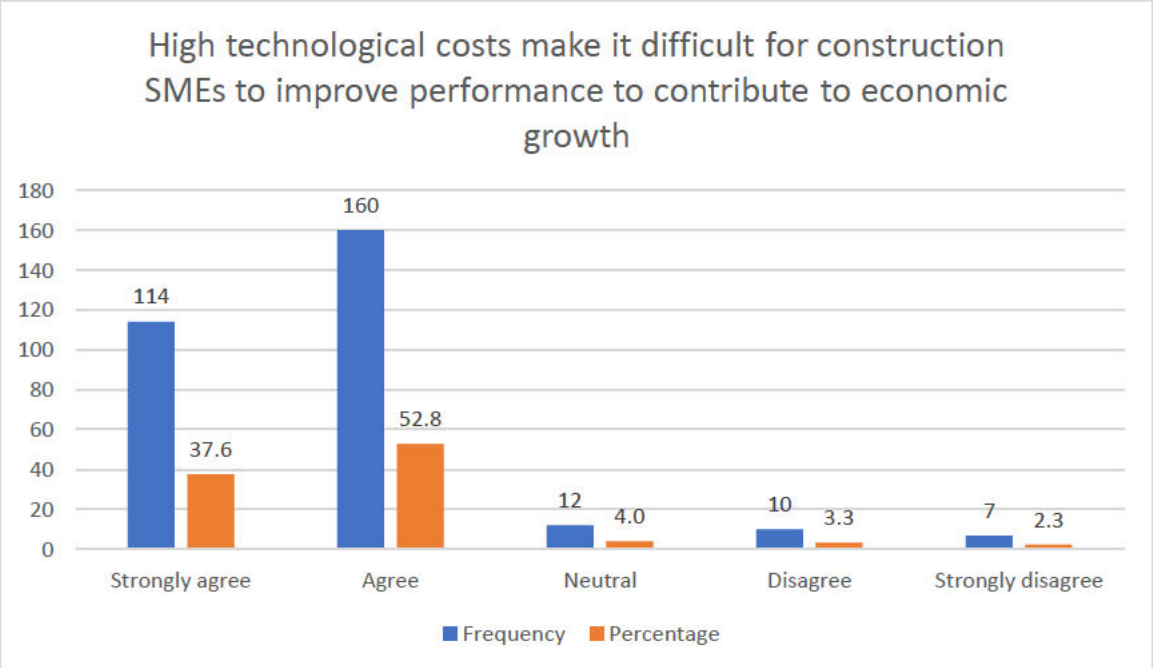

Figure 5.50: High technological costs make it difficult for construction SMEs to improve their performance to contribute to economic growth

The survey respondents were asked to state how likely it is high technological costs make it difficult for construction SMEs to improve their performance to contribute to economic growth. As depicted (Figure 5.48) above, the overwhelming

majority (90.4 percent) respondents agreed high technological costs make it difficult for construction SMEs to improve their performance to contribute to economic growth, with 52 percent that agreed and 37.6 percent that strongly agreed, while four percent of the respondents remained neutral, 3.3 percent disagreed and only 2.3 percent strongly disagreed with this statement. A Chi-square test was done and the results (X^2 = 338.733; df = 4; P < 0.001) for this variable show high technological costs make it difficult for construction SMEs to improve their performance to contribute to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Mogos *et al.* (2019: 628), who discovered one of the major factors making it difficult for SMEs to use modern technology is high technological costs, which affect their performance.

5.2.6.7.3 Failure to adopt up-to-date technology affects the contribution of construction SMEs to economic growth

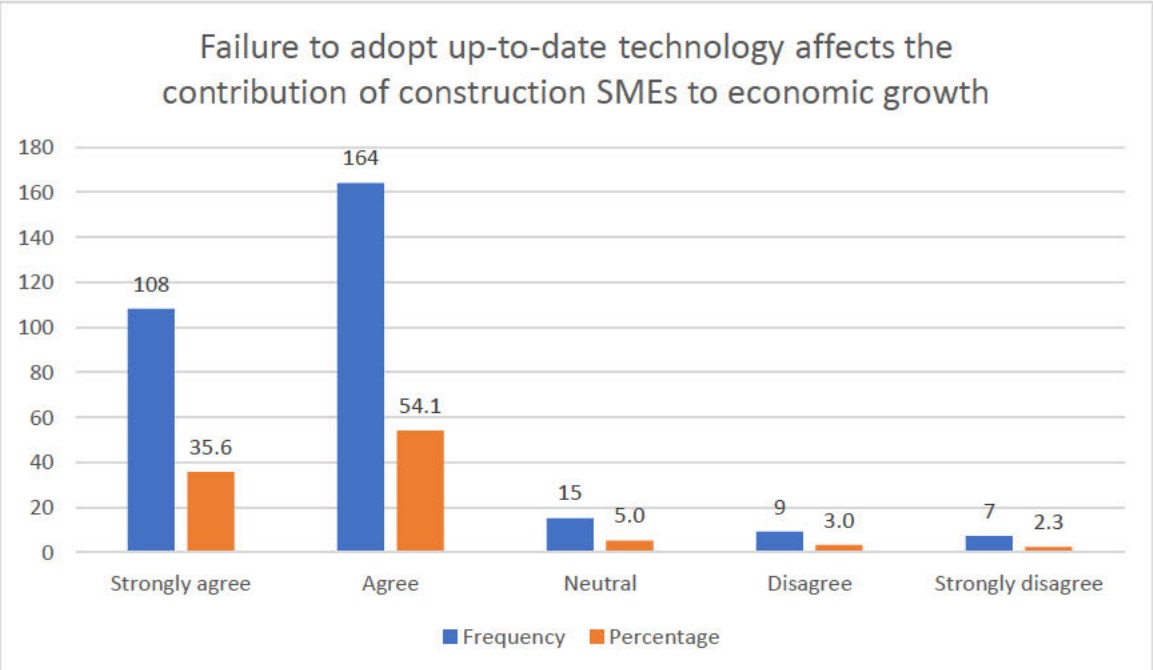

Figure 5.51: Failure to adopt up-to-date technology affects the contribution of construction SMEs to economic growth

The survey respondents were asked to state how likely it is that failure to adopt up-to-date technology influences the contribution of construction SMEs to

economic growth. The above findings (Figure 5.49) indicate the overwhelming majority (89.7percent) respondents agreed failure to adopt up-to-date technology affects the contribution of construction SMEs to economic growth, with 54.1 percent that agreed and 35.6 percent that strongly agreed, while five percent of the respondents remained neutral, three percent disagreed and only 2.3 percent strongly agreed with this statement. The results were supported by the Chi-square test results (X^2 = 339.162; df = 4; P < 0.001) for this variable, which shows construction SMEs' contribution to economic growth is influenced by failure to adopt up-to-date technology. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are confirmed by Eze and Ugulu (2021: 165) and Anjum (2019: 1239), who determined that the lack of finance has resulted in failure of SMEs to adopt modern technology.

5.2.6.7.4 Rapid technological changes affect the contribution of construction SMEs to economic growth

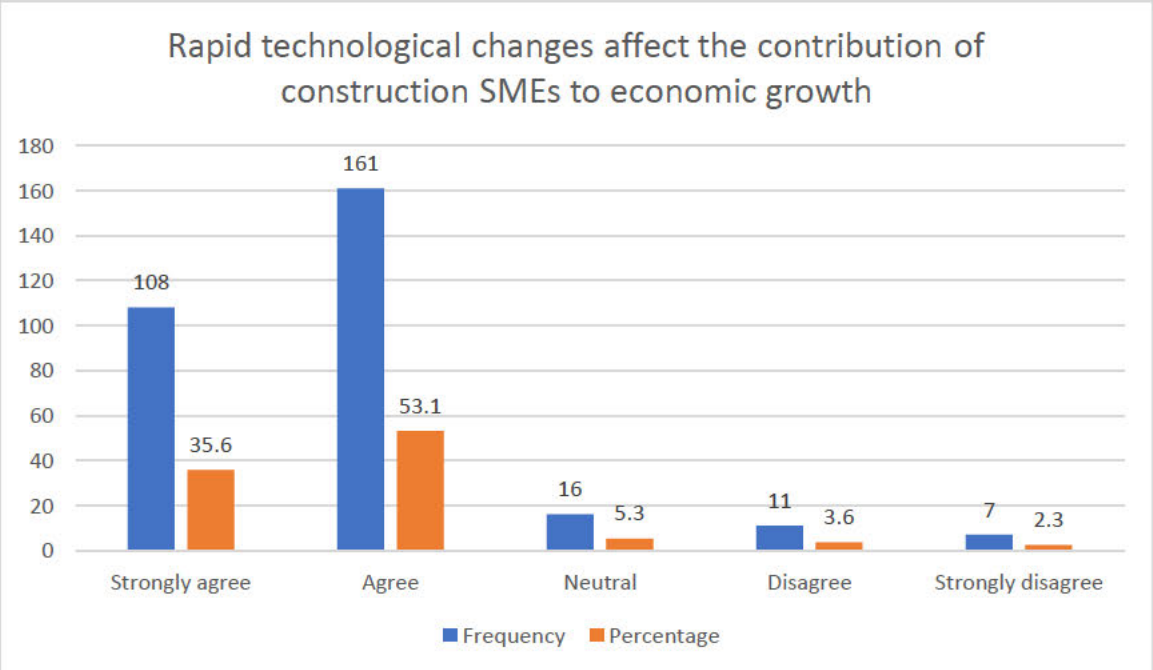

Figure 5.52: Rapid technological changes affect the contribution of construction SMEs to economic growth

The survey respondents were asked to state how likely it is for rapid technological changes to influence the contribution of construction SMEs to economic growth.

As shown (Figure 5.50) above, an overwhelming majority (88.7 percent) respondents agreed rapid technological changes affect the contribution of construction SMEs to economic growth, with 53.1 percent that agreed and 35.6percent that strongly agreed, while 5.3 percent of respondents remained neutral, 3.6 percent of respondents disagreed and only 2.3 percent that strongly disagreed. To confirm these findings, a Chi-square test was done and the results (X^2 = 324.244; df = 4; P < 0.001) for this variable show rapid technological changes influence the contribution of construction SMEs to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Wentzel *et al*. (2016: 1480) who state one of the external factors that affect construction SMEs negatively is rapid change in technology.

Table 5.10: Component matrix: The influence of technology infrastructure on the construction SMEs' contribution to economic growth

Component Matrix[a]

	Component 1
Lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth.	.892
High technological costs make it difficult for construction SMEs to improve performance to contribute to economic growth.	.854
Failure to adopt up-to-date technology affect the contribution of construction SMEs to economic growth.	.886
Rapid technological changes affect the contribution of construction SMEs to economic growth.	.907

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The components indicated (Table 5.9) are derived from additional statistical analysis of the figures (Figures 5.47 to 5.50) regarding the influence of technology infrastructure on construction SMEs' contribution to economic growth. The factor analysis measured the underlying constructs of the construct technology infrastructure. Respondents indicated to one category component, where a strong positive significance of 0.907 was achieved on the statement whether rapid technological changes affect the contribution of construction SMEs to economic

growth. While on the statement whether lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth, a positive significance of 0.892 was achieved.

On other variables, regarding the statements whether failure to adopt up-to-date technology affects the contribution of construction SMEs to economic growth and high technological costs make it difficult for construction SMEs to improve their performance to contribute to economic growth, showed a value of 0.866 and 0.854, respectively. It can be seen the component achieved from each matric is close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.8 Influence of organisational support on the performance of construction SMEs

In this section, construction SMEs were asked to state how likely it is for organisational support to influence their performance.

5.2.6.8.1 Lack of timeous supply of material on site affects the performance of construction SME projects

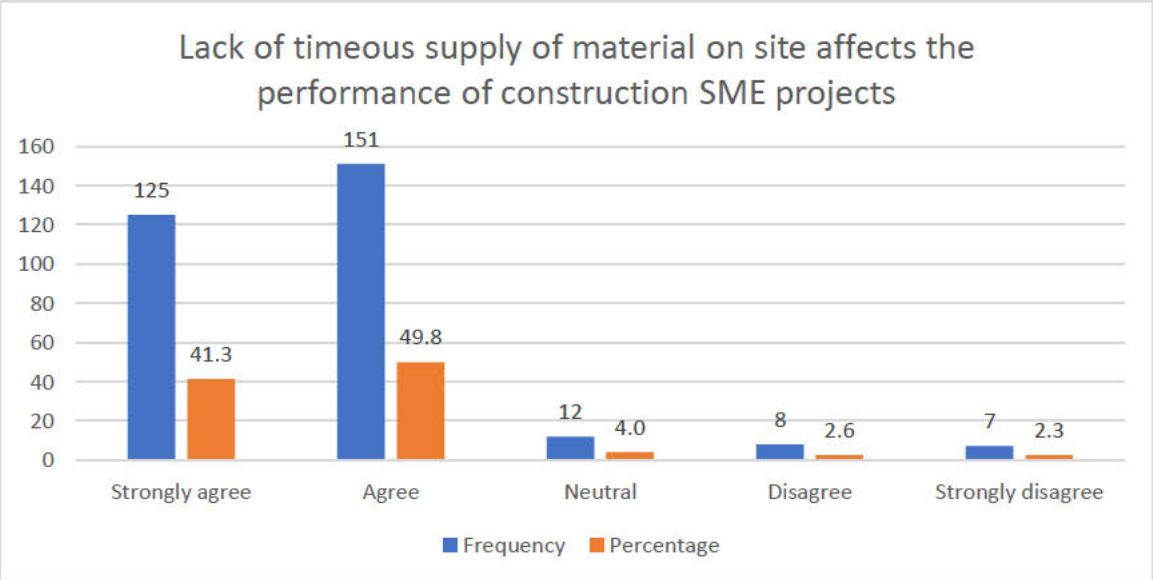

Figure 5.53: Lack of timeous supply of material on site affects the performance of construction SME projects

The survey respondents were asked to state the likelihood that a lack of timeous supply of material on site influences the performance of construction SMEs. As depicted (Figure 5.51) above, the overwhelming majority (91.1 percent) respondents agreed lack of timeous supply of material on site affects the performance of construction SME projects, with 49.8 percent that agreed and 41.3 percent that strongly agreed, while for percent remained neutral, 2.6 percent disagreed and only 2.3 percent strongly disagreed with this statement. The findings are supported by the Chi-square test results (X^2 = 335.333; df = 4; P < 0.001) on this variable, which show the performance of construction SME projects is affected by lack of timeous supply of material on site. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Owoo *et al.* (2018: 12) who established one of the pertinent challenges that affect the performance of the construction sector includes access to raw materials.

5.2.6.8.2 Lack of financial resources affects the performance of construction SMEs

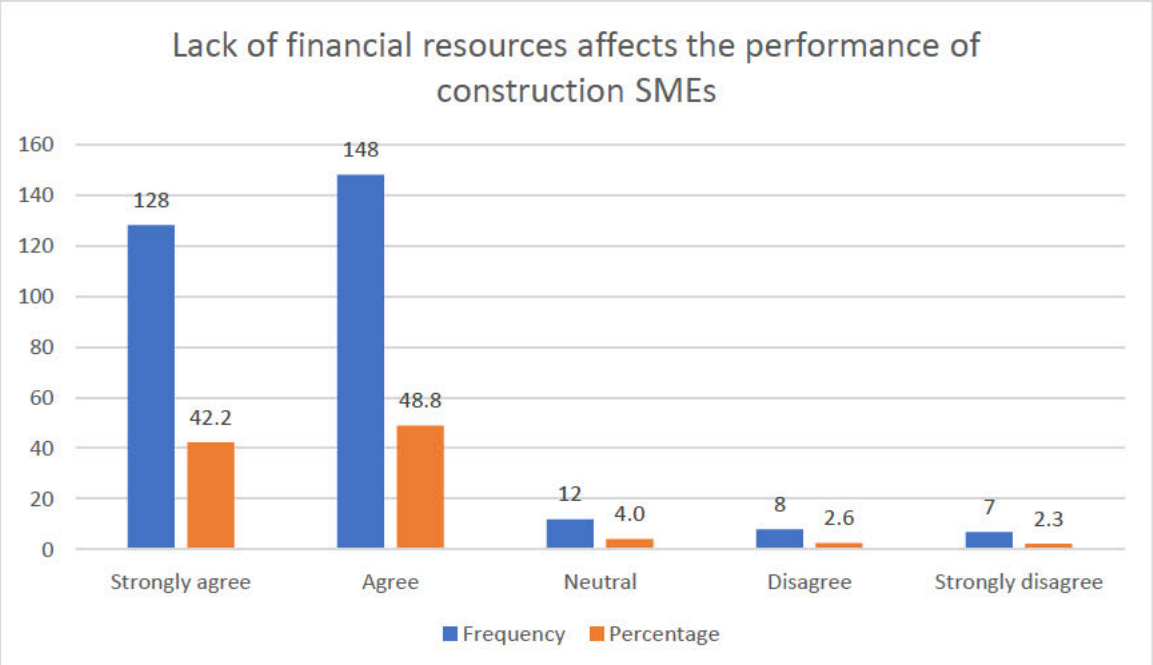

Figure 5.54: Lack of financial resources affects the performance of construction SMEs

The survey respondents were asked to state the likelihood that a lack of financial resources influences the performance of construction SMEs. The above findings (Figure 5.52) show an overwhelming majority (91 percent) of the respondents agreed that the lack of financial resources affects the performance of construction SMEs, with 48.8 percent that agreed and 42.2 percent that strongly agreed, while four percent remained neutral, 2.6 percent disagreed and only 2.3 percent strongly disagreed with this. A Chi-square test was further conducted and the results (X^2 = 333.056; df = 4; P < 0.001) for this variable show the lack of financial resources affects the performance of construction SMEs. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Msomi and Olarewaju (2021a: 106) who discovered the ongoing research on financial restrictions faced by SMEs shows access to finance as one of the limiting factors to business success and performance.

5.2.6.8.3 Lack of equipment affects the performance of construction SMEs to execute projects

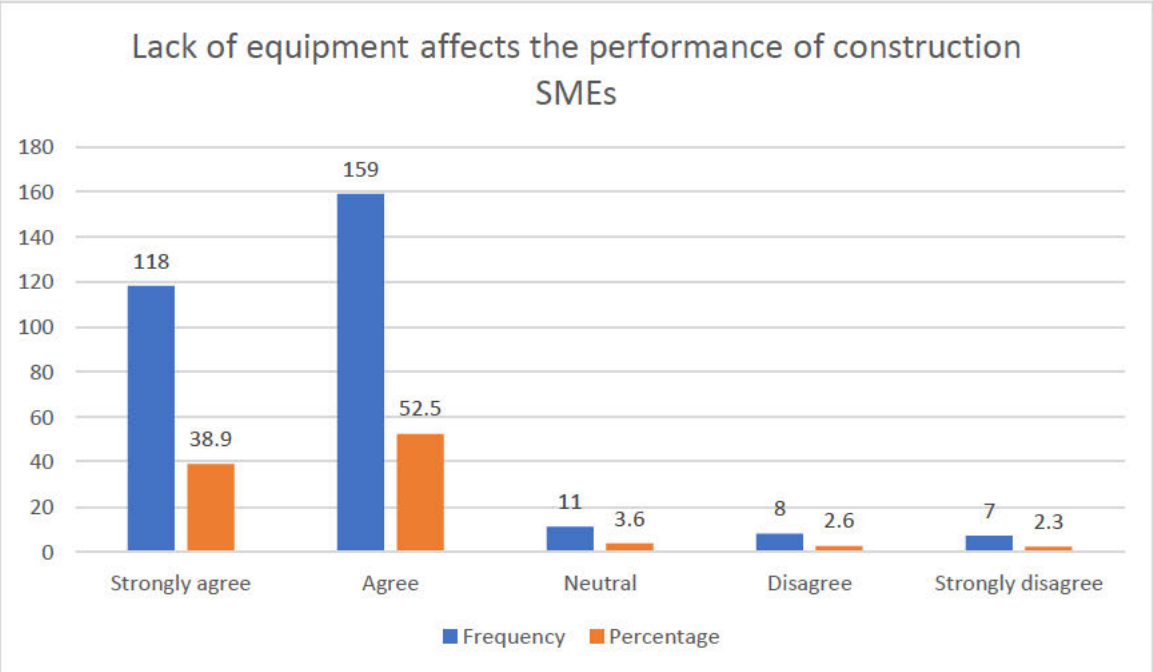

Figure 5.55: Lack of equipment affects the performance of construction SMEs to execute projects

The survey respondents were asked to state the likelihood a lack of equipment influences the performance of construction SMEs to execute projects. As shown (Figure 5.53) above, an overwhelming majority (91.4 percent) respondents agreed lack of equipment affects the performance of construction SMEs to execute projects, with 52.5 percent that agreed and 38.9 percent that strongly agreed, while 3.6 percent of the respondents remained neutral, 2.6 percent disagreed and only 2.3 percent strongly disagreed with this statement. To confirm the findings, a Chi-square test was conducted and the results (X^2 = 347.809; df = 4; P < 0.001) for this variable show the lack of equipment affects the performance of construction SMEs to execute projects. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by the literature, as Sityata (2019: 98), Selai (2019: 6) and Tayeh *et al*. (2019: 56), who discovered one of the constraints facing SMEs globally is a lack of equipment, which affects their performance and contribution to the economy.

5.2.6.8.4 Lack of experienced key personnel on a construction project affects the performance of construction SMEs

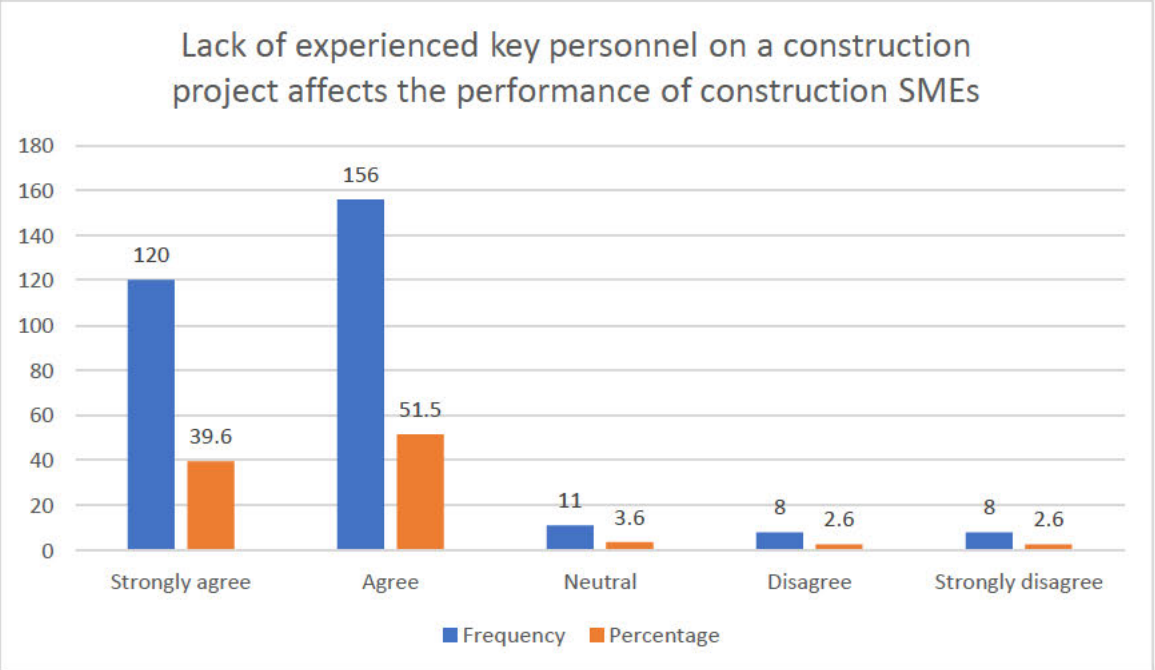

Figure 5.56: Lack of experienced key personnel on a construction project affects the performance of construction SMEs

The survey respondents were asked to state how likely it is for a lack of experienced key personnel on a construction project to influence the performance of construction SMEs. As depicted (Figure 5.54) above, an overwhelming majority (91.9 percent) respondents agreed lack of experienced key personnel on a construction project affects the performance of construction SMEs, with 51.5 percent that agreed and 39.6 percent that strongly agreed, while 3.6 percent of the respondents remained neutral, 2.6 percent disagreed, and 2.6 percent also strongly disagreed with this statement. The results are supported by the Chi-square test results (X^2 = 340.317; df = 4; P < 0.001) for this variable, which show the performance of construction SMEs is influenced by lack of experienced key personnel on construction projects. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Lawani *et al*. (2022: 2) who assert the shortage of experienced personnel has been exacerbated by COVID-19.

5.2.6.8.5 Shortage of available suitably qualified employees affects the performance of construction SMEs

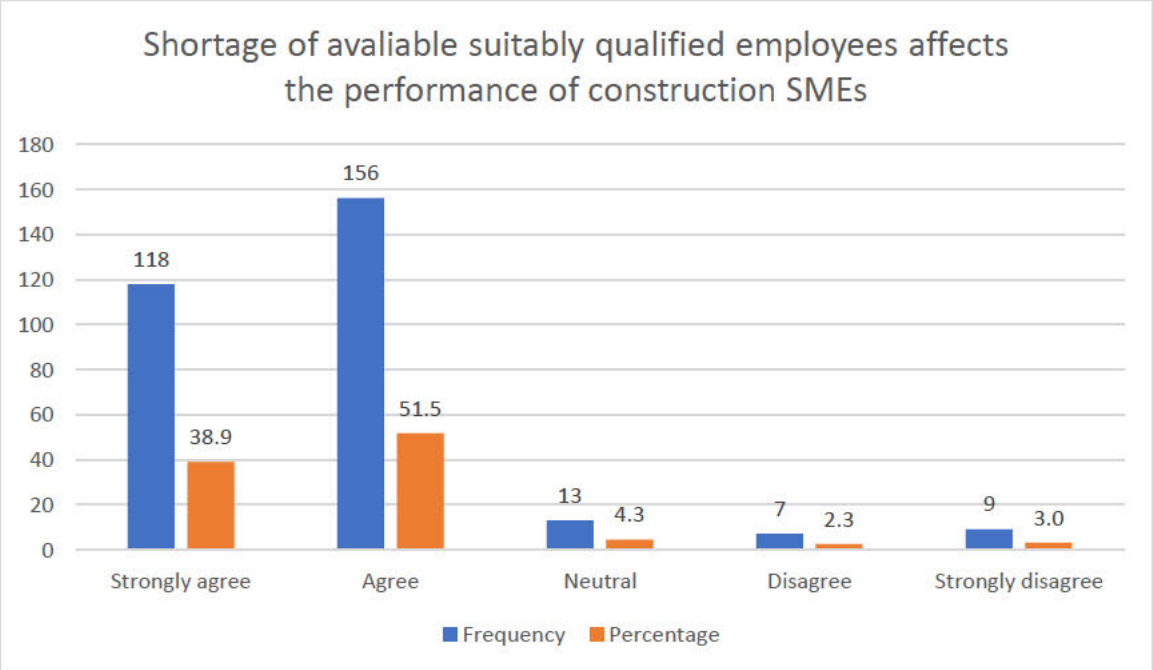

Figure 5.57: Shortage of available suitably qualified employees affects the performance of construction SMEs

The survey respondents were asked to state how likely it is that a shortage of available suitably qualified employees influences the performance of construction SMEs. The findings (Figure 5.55) above reveal the overwhelming majority (90.4 percent) respondents agreed a shortage of available suitably qualified employees affects the performance of construction SMEs, with 51.5 percent that agreed, and 38.9 percent strongly agreed while 4.3 percent remained neutral, three percent strongly disagreed, and 2.3 percent disagreed with this. A Chi-square test was conducted and the results (X^2 = 333.287; df = 4; P < 0.001) for this variable indicate a shortage of available suitably qualified employees influences the performance of construction SMEs. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by the literature, with a report by the Eastern Cape Socio-Economic Consultative Council (2019: 20), as well as studies by Madanchian and Taherdoost (2017: 241) and Emuze and Adlam (2013: 131), stating there are a limited number of candidates in the SME sector with adequate skills and experience, which limits their performance. Hence, Kocherbaeva *et al*. (2019: 92) advocate construction SME owners must ensure their activities are aimed at helping them and their businesses enhance their expertise, knowledge, and experience.

5.2.6.8.6 High prices of required materials by suppliers affect the profit margins of construction SMEs

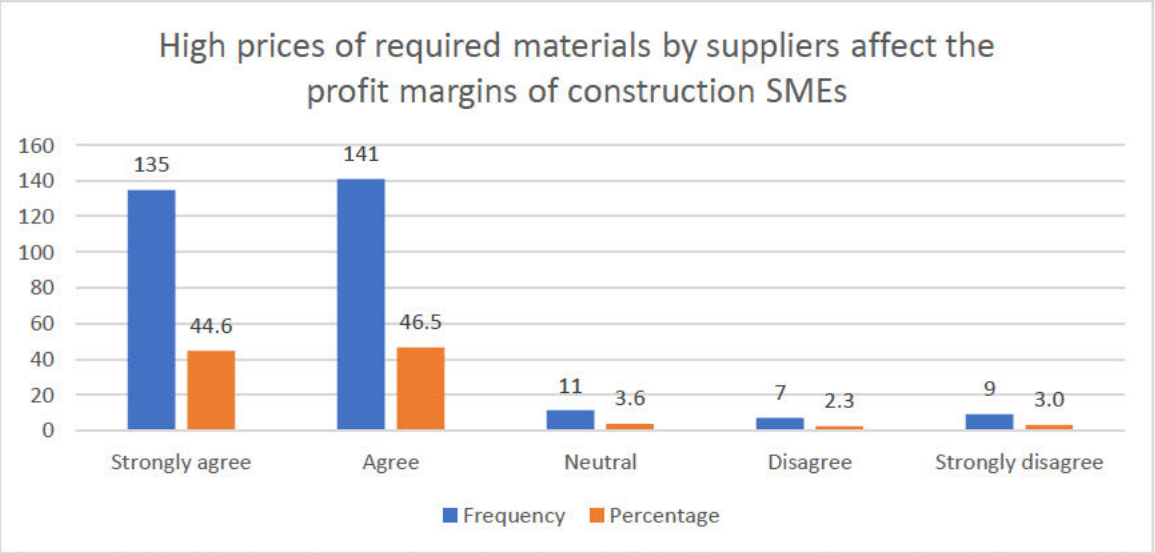

Figure 5.58: High prices of required materials by suppliers affect the profit margins of construction SMEs

The survey respondents were asked to indicate the likelihood that high prices of required materials by suppliers influence the profit margins of construction SMEs. As shown (Figure 5.56) above, the overwhelming majority (91.1 percent) respondents agreed high prices of required materials by suppliers affect the profit margins of construction SMEs, with 46.5 percent that agreed and another 44.6 percent strongly agreed, while 3.6 percent of respondents remained neutral, three percent strongly disagreed and only 2.3 percent disagreed, respectively, with the statement. To confirm the findings, a Chi-square test was conducted and the results (X^2 = 329.954; df = 4; P < 0.001) for this variable show high prices of required materials by suppliers affect the profit margins of construction SMEs. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

The literature confirms these findings, with Dosumu and Aigbavboa (2018: 19), Adeyemi and Aigbavboa (2018: 1565) and Taiwo and Falohun (2016: 43) who found the profit margins of construction projects is greatly affected by the high prices of materials in the construction industry.

5.2.6.8.7 Lack of support from shareholders and/or board of directors influence the performance of construction SMEs

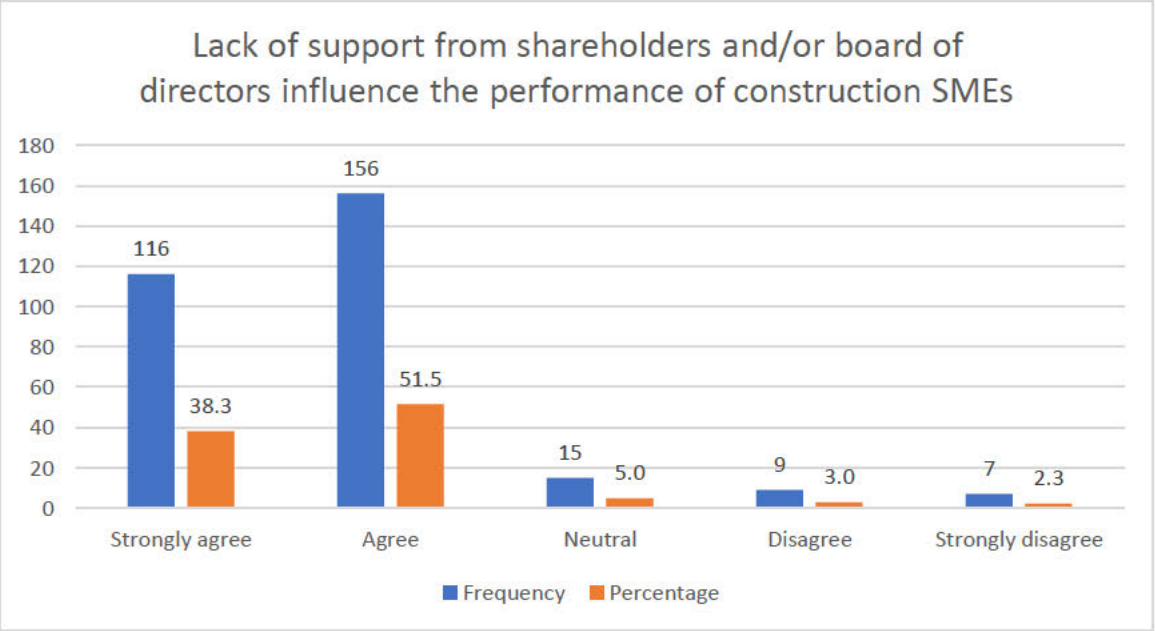

Figure 5.59: Lack of support from shareholders and/or board of directors influence the performance of construction SMEs

According to Madanchian and Taherdoost (2017: 240), business leaders which include shareholders and board of directors are very important and play a crucial role that enables the organisation to attain high performance. The survey respondents were asked to state how likely lack of support from shareholders and/or board of directors influence the performance of construction SMEs. The findings (Figure 5.57) above indicate an overwhelming majority (89.8 percent) agreed the lack of support from shareholders and/or board of directors influences the performance of construction SMEs, with 51.5 percent that agreed and 38.3 percent strongly agreed, while five percent remained neutral, three percent disagreed and only 2.3percent strongly disagreed with this statement. A Chi-square test was conducted, with the results (X^2 = 326.488; df = 4; P < 0.001) for this variable that show the lack of support from shareholders and/or board of directors influences the performance of construction SMEs. This implies the result for this variable was statically significant and not due to chance (Appendix 8). These findings are supported by Eze and Ugulu (2021: 168), who determined that prevention of construction SMEs from using IR4.0 is owed to insufficient management support.

5.2.6.8.8 of subcontracting strategy adoption affects the growth of construction SMEs

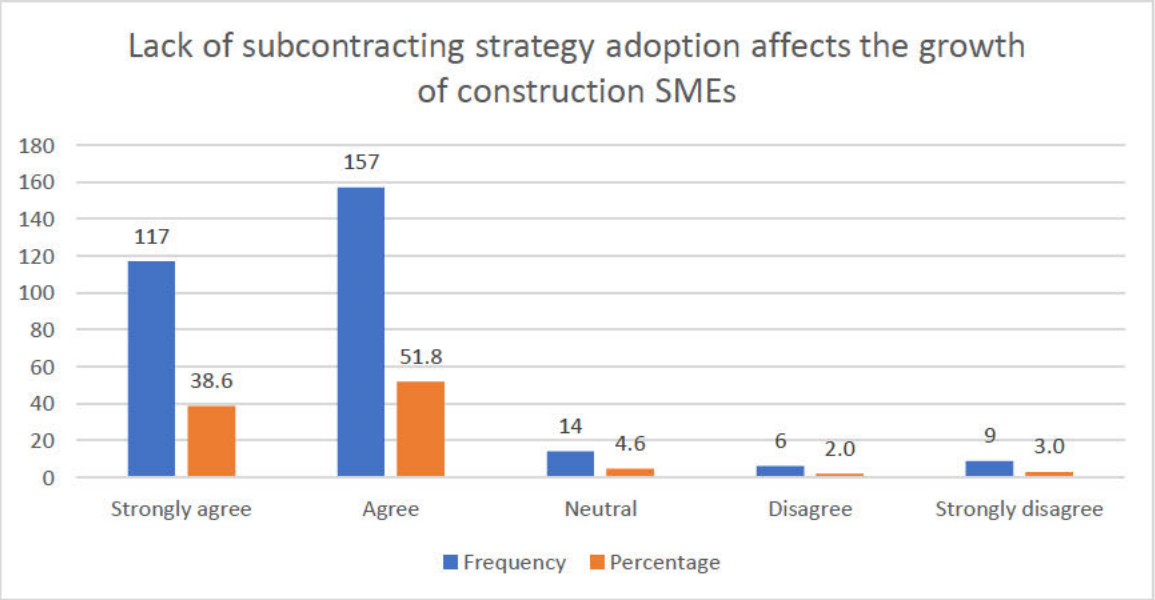

Figure 5.60: Lack of subcontracting strategy adoption affects the growth of construction SMEs

The survey respondents were asked to state how likely it is that a lack of subcontracting strategy adoption influences the growth of construction SMEs. As depicted (Figure 5.58) above, the overwhelming majority (90.4 percent) respondents agreed the lack of subcontracting strategy adoption affects the growth of construction SMEs, with 51.8 percent that agreed and 38.6percent that strongly agreed, while 4.6 percent remained neutral, three percent strongly disagreed and only two percent disagreed with this statement. The findings are supported by the Chi-square test results (X^2 = 334.805; df = 4; P < 0.001) for this variable, which show the lack of subcontracting strategy adoption affects the growth of construction SMEs. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Noganta (2019: 16) and Manu *et al*. (2013: 1018), who found the reason subcontracting is not preferred by construction SMEs, is due to the associated challenges, which include non-payment and exploitation by large construction firms.

Table 5.11: Component matrix: The influence of organisational support on the performance of construction SMEs

Component Matrix[a]

	Component 1
Lack of timeous supply of material on site affect the performance of construction SMEs' projects.	.889
Lack of financial resources affect the performance of construction SMEs.	.878
Lack of equipment affects the performance of construction SMEs to execute projects.	.863
Lack of experienced key personnel on a construction project affects the performance of construction SMEs.	.839
Shortage of available suitably qualified employees affect the performance of a construction SMEs	.861
High prices of required materials by suppliers affect the profit margins of construction SMEs.	.875
Lack of support from shareholders and/or board of directors influence the performance of construction SMEs.	.836
Lack of adoption of subcontracting strategy affects the growth of construction SMEs.	.847

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The components shown (Table 5.10) are a supplementary statistical analysis of the above-mentioned figures (Figure 5.51 to 5.58). The factor analysis measured the underlying constructs of the organisational support construct. The respondents indicated to only one category of component, showing a strong positive significance of 0.889 on the statement as to whether lack of timeous supply of material on site affects the performance of construction SME projects. A value of 0.878 is achieved for respondents who indicated construction SMEs' performance is affected by lack of financial resources. While on the variable pertaining to high prices of required materials by suppliers, the component test indicates a positive significance of 0.875, reflecting respondents believed construction SMEs' profit margins are affected by high prices of materials used for construction. A value of 0.863 is achieved for respondents who indicated the performance of construction SMEs is affected by the lack of equipment to execute projects. Similarly, a value of 0.861 is achieved for respondents who indicated performance of construction

SMEs is affected by shortage of available suitable qualified employees. A figure of 0.847 is reflected for respondents who indicated the growth of construction SMEs is affected by the lack of adoption of subcontracting strategies.

Lastly, other variables on whether lack of experienced key personnel on a construction project affects the performance of construction SMEs and lack of support from shareholders and/or board of directors influence the performance of construction SMEs showed 0.839 and 0.836, respectively. It can be seen the component achieved from each matric is close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.9 Influence of access to market for construction SMEs' contribution to economic growth in the Eastern Cape province

In this section, construction SMEs were asked to state how likely it is for access to market by their businesses to influence their contribution to economic growth.

5.2.6.9.1 The poor Eastern Cape economy results in government having less Eastern Cape construction SME projects

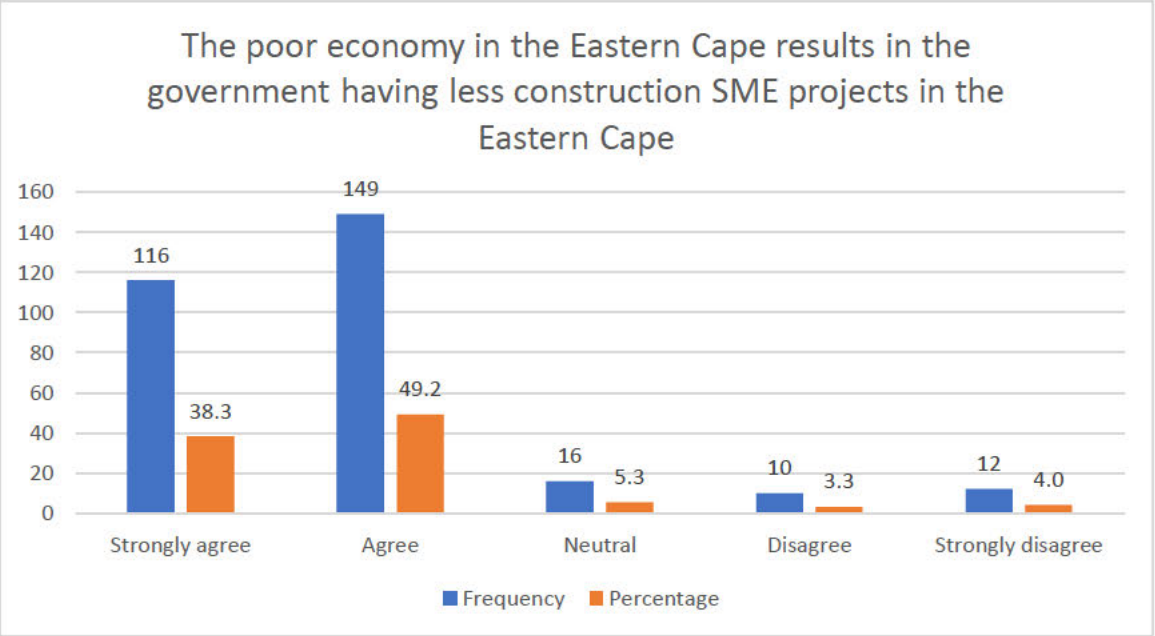

Figure 5.61: The poor economy in the Eastern Cape results in the government having less construction SME projects in the Eastern Cape

According to Fiseha *et al.* (2019: 203), the Eastern Cape province is not immune to the economic challenges faced by SA, which leads to poor economic performance. The survey respondents were asked their perception on whether the poor economy in the Eastern Cape results in the government having less construction SME projects in the province. The findings shown (Figure 5.59) above reveal an overwhelming majority (87.5 percent) respondents agreed the poor economy in the Eastern Cape results in the government having less construction SME projects in the province, with 49.2 percent that agreed and 38.3 percent that strongly agreed, while 5.3 percent of the respondents remained neutral, four percent strongly agreed and only 3.3 percent disagreed with this statement. To further confirm these findings, a Chi-square test was conducted and the results (X^2 = 293.650; df = 4; P < 0.001) for this variable show the poor economy in the Eastern Cape results in the government having less construction SME projects in the province. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

5.2.6.9.2 Lack of construction SME projects in the Eastern Cape affects the construction SMEs' contribution to economic growth

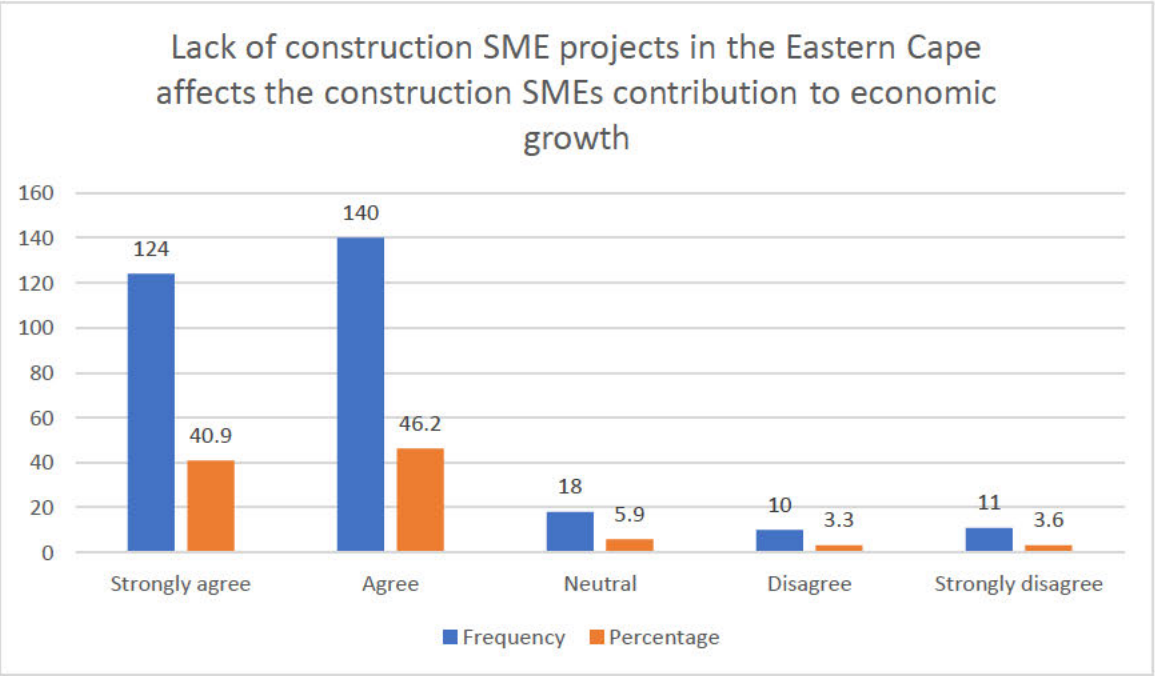

Figure 5.62: Lack of construction SME projects in the Eastern Cape affects the construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it is that a lack of construction SME projects in the Eastern Cape influences the contribution of construction SMEs to economic growth. The findings (Figure 5.60) above signify an overwhelming majority of the respondents agreed that a lack of construction SME projects in the Eastern Cape affects the construction SMEs' contribution to economic growth, with 46.2 percent that agreed and 40.9 percent that strongly agreed, while 5.9 percent of the respondents remained neutral, 3.6 percent strongly disagreed and only 3.3 percent disagreed with this statement. These findings are supported by the Chi-square test results (X^2 = 283.155; df = 4; P < 0.001) for this variable, which show the contribution of construction SMEs is affected by the lack of construction SME projects in the Eastern Cape. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Mulaudzi and Lancaster (2021: 1), who determined that many projects in SA were stopped due to crime and criminal activities, and this has resulted in less projects being available in the market.

5.2.6.9.3 Inability to provide securities for lending or borrowing purposes affects construction SMEs in obtaining construction projects

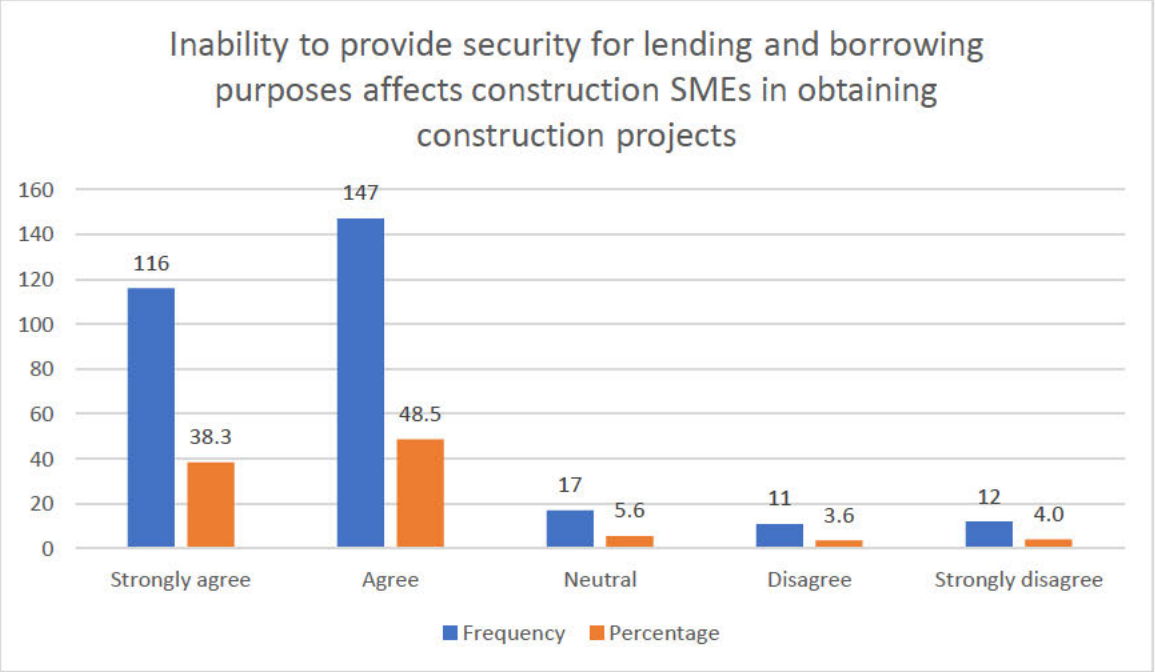

Figure 5.63: Inability to provide securities for lending or borrowing purposes affects construction SMEs in obtaining construction projects

The survey respondents were asked to state how likely it is for the inability to provide securities for lending or borrowing purposes to influence construction SMEs in obtaining construction projects. Figure 5.61 above shows an overwhelming majority (86.8 percent) respondents agreed the inability to provide securities for lending or borrowing purposes affects construction SMEs in obtaining construction projects, with 48.5 percent that agreed and 38.3 percent that strongly disagreed, while 5.6 percent of respondents remained neutral, four percent strongly disagreed, and 3.6 percent disagreed with this statement. A Chi-square test was done and the results (X^2 = 284.772; df = 4; P < 0.001) for this variable confirm the inability to provide securities for lending or borrowing purposes affects construction SMEs in obtaining construction projects. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

According to Govori (2013: 703), most construction SMEs were unable to borrow money from lending institutions due to a lack of surety, which resulted in these firms not qualifying for some private projects.

5.2.6.9.4 Inability to obtain insurance for lending or borrowing purposes affects construction SMEs in obtaining construction projects

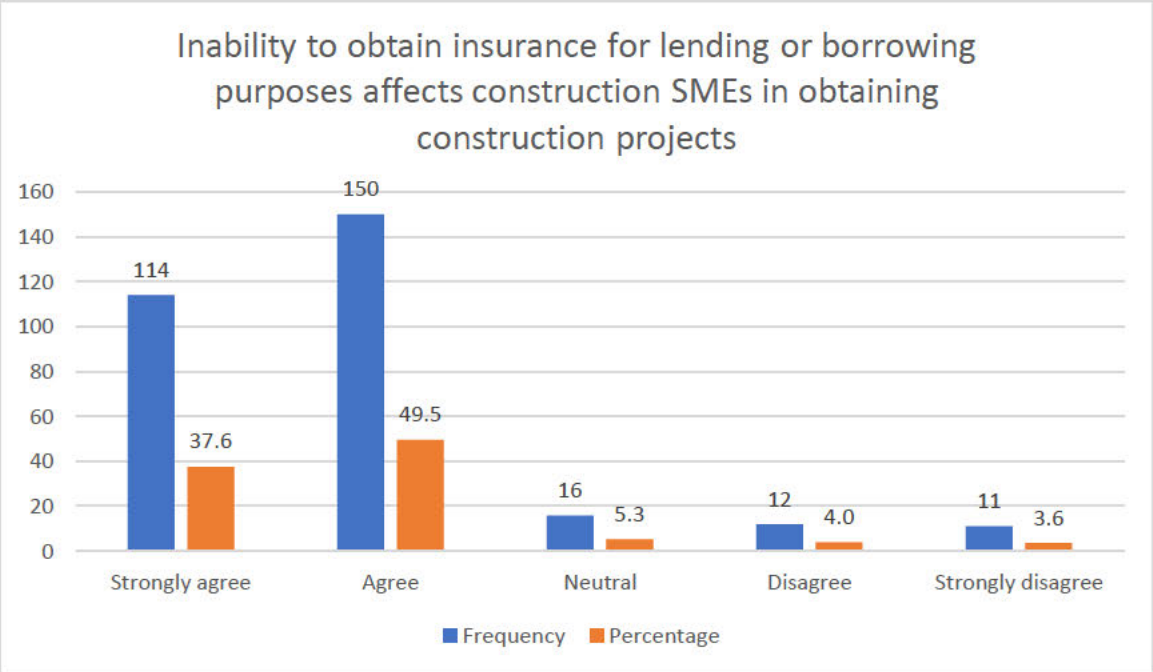

Figure 5.64: Inability to obtain insurance for lending or borrowing purposes affects construction SMEs in obtaining construction projects

The survey respondents were asked to state the likelihood of the inability to obtain insurance for lending or borrowing purposes to influence construction SMEs in obtaining construction projects. As shown (Figure 5.62) above, an overwhelming majority (87.1 percent) respondents agreed the inability to obtain insurance for lending or borrowing purposes affects construction SMEs in obtaining construction projects, with 49.5 percent that agreed and 37.6 percent that strongly agreed, while 5.3 percent of the respondents remained neutral, four percent disagreed and only 3.6 percent strongly disagreed with this statement. These findings are supported by the Chi-square test results (X^2 = 291.340; df = 4; P < 0.001) for this variable, which show the inability to obtain insurance for lending or borrowing purposes affects construction SMEs in obtaining construction projects. This

implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Govori (2013: 703), who states that in emerging countries, such as SA, construction SMEs usually encounter challenges in obtaining loans from private banks, due to the lack of surety and insurances required by banks that limit SMEs' contribution to economic growth.

5.2.6.9.5 Lack of governmental support to prioritise construction SMEs on tenders affects construction SMEs' contribution to economic growth

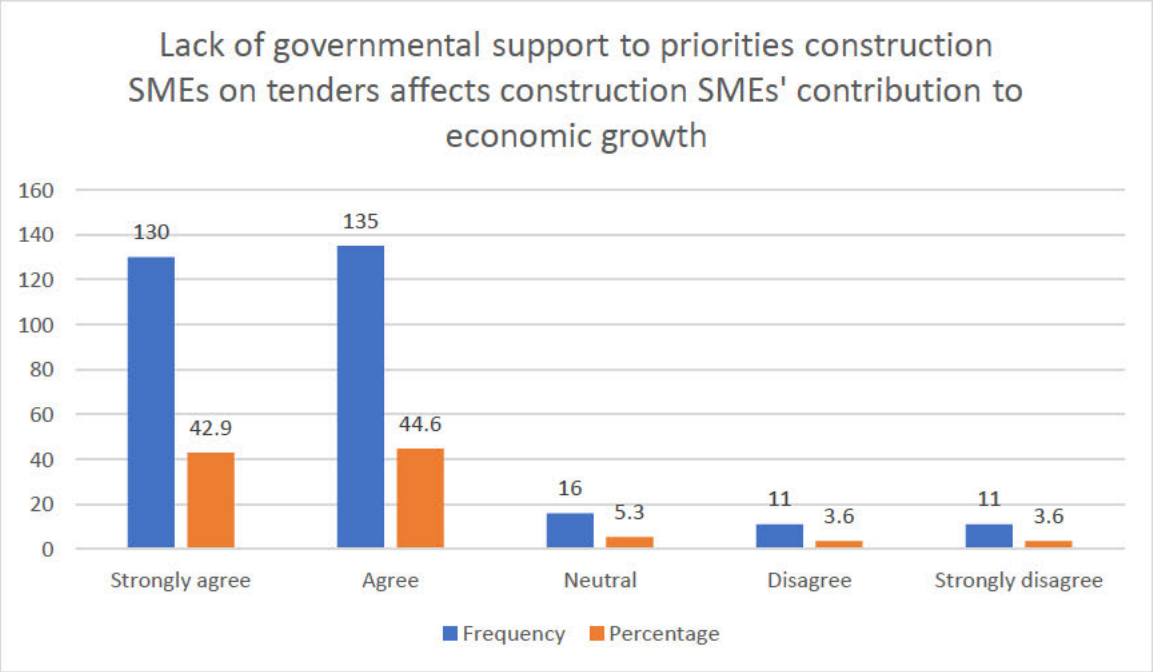

Figure 5.65: Lack of governmental support to prioritise construction SMEs on tenders affects construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it is that the lack of governmental support to prioritise construction SMEs on tenders influences the contribution of construction SMEs to economic growth. The findings (Figure 5.63) above reveal an overwhelming majority (87.5 percent) respondents agreed the lack of governmental support to prioritise construction SMEs on tenders affects construction SMEs' contribution to economic growth, with 44.6 percent that agreed and 42.9 percent that strongly agreed, while 5.3 percent of the respondents remained neutral, 3.6percent disagreed and 3.6 percent strongly disagreed with this. A Chi-square test was further conducted and the results (X^2 = 284.838; df = 4;

P < 0.001) for this variable reveal the lack of governmental support to prioritise construction SMEs on tenders influences construction SMEs' contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

Literature supports these findings, with Fatoki (2018: 3), Nyakala (2022: 8) and Fatoki and Garwe (2010: 15) highlighting lack of government support is one of the factors that limit construction SME performance. Hence, lack of government support was identified as one of the barriers for construction SMEs to not implement a circular economy (Zuofa *et al*. 2023: 12).

5.2.6.9.6 Lack of required expertise to execute some construction SME projects affects construction SMEs in acquiring additional projects

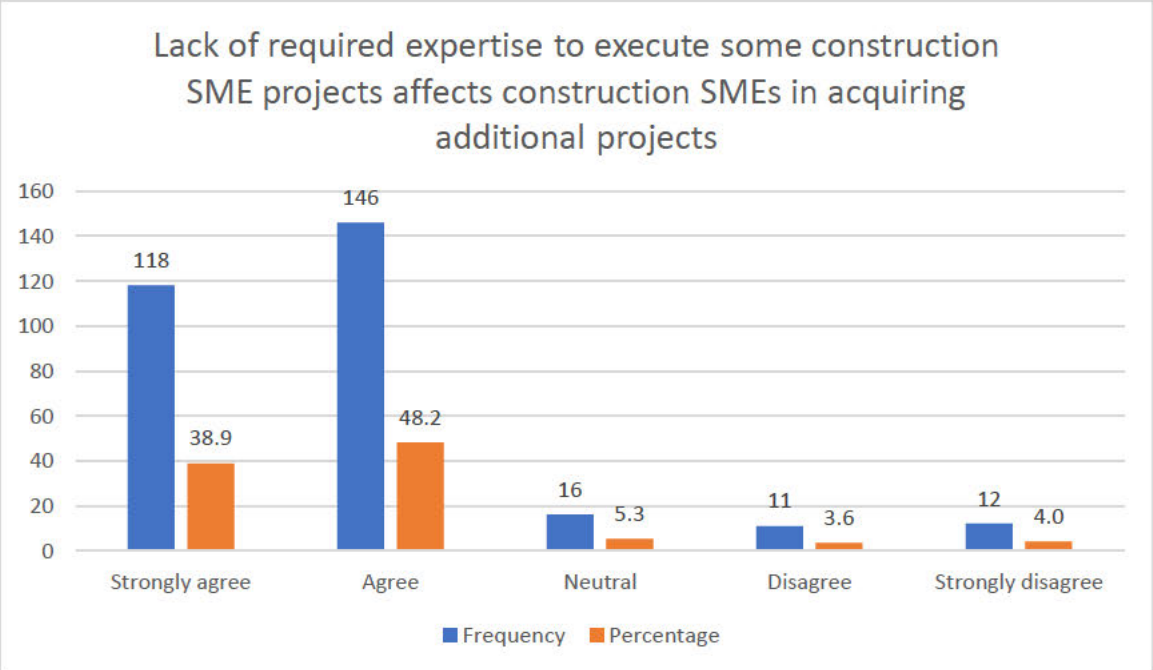

Figure 5.66: Lack of required expertise to execute some construction SME projects affects construction SMEs in acquiring additional projects

The survey respondents were asked to state how likely the lack of required expertise to execute some construction SME projects influences the construction SMEs in acquiring additional projects. As depicted (Figure 5.64) above an overwhelming majority (87.1 percent) respondents agreed lack of required expertise to execute some construction SME projects affects construction SMEs in acquiring additional projects, with 48.2 percent that agreed and 38.9 percent that

strongly agreed, while 5.3 percent of the respondents remained neutral, four percent strongly disagreed and only 3.6 percent disagreed with this statement. A Chi-square test was conducted to confirm these findings. The results (X2 = 287.116; df = 4; P < 0.001) for this variable reveal the lack of required expertise to execute some construction SME projects affects construction SMEs in acquiring additional projects. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings agree with Khattak and Mustafa (2019: 1340), who found one of the key factors affecting the performance of construction projects is inadequate experience require for project implementation. This is confirmed by Eke *et al.* (2015: 1062) whose study on causes of failure in construction SMEs in Johannesburg discovered a skills shortage and employee incompetence as major contributing factors.

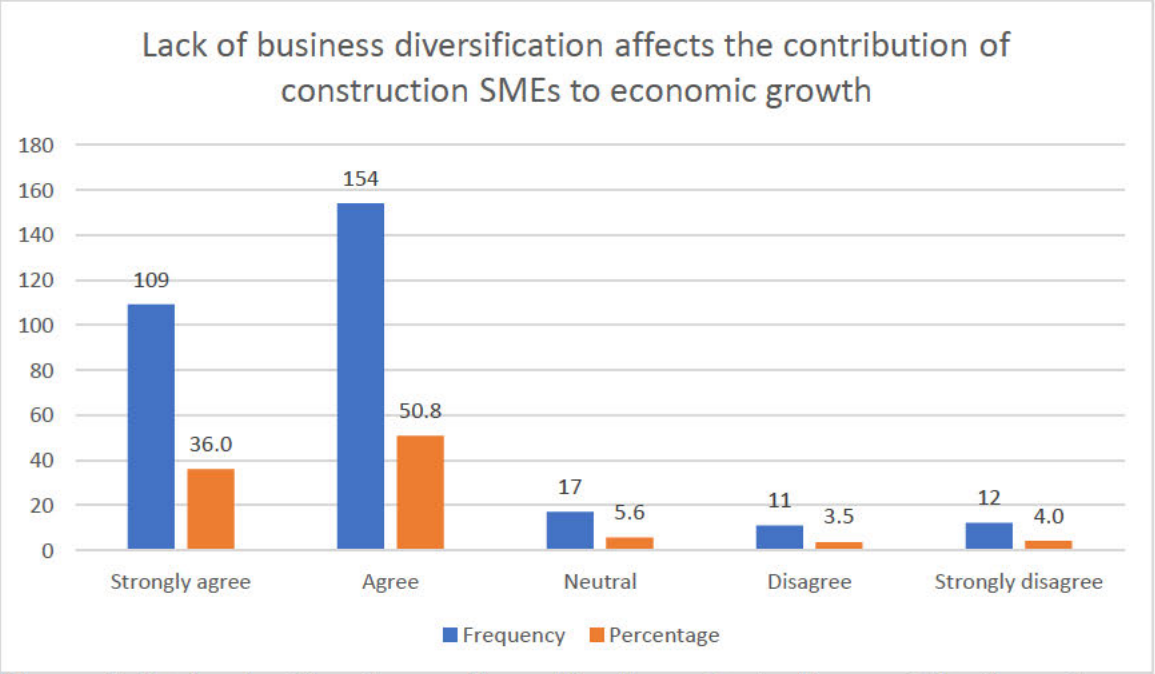

Figure 5.67: Lack of business diversification affects the contribution of construction SMEs to economic growth

5.2.6.9.7 Business diversification affects the contribution of construction SMEs to economic growth

According to Guyader and Piscicelli (2019: 1060), business diversification has not been underutilised by firms globally. The survey respondents were asked to state how likely it is that the lack of business diversification influences the contribution of

construction SMEs to economic growth. Figure 5.65 above shows an overwhelming majority (86.8 percent) respondents agreed the lack of business diversification affects the contribution of construction SMEs to economic growth, with 50.8 percent that agreed and 36 percent that strongly agreed with this. Penrose's theory advocates firms should incorporate diversification in their products or services as a tool to attain business growth (Kor *et al*. 2016: 1728).

Based on the findings, it is clear construction SMEs do not take advantage of diversification to achieve business growth and sustainability. In support of these findings, Shah *et al*. (2017: 7) indicate a critical challenge resulting in construction SMEs being stagnant, is the reluctance or lack of owners or managers to adapt to diversification. The same number (four percent) of respondents remained neutral, and strongly disagreed, with only 3.5 percent that disagreed with this statement. These findings are further supported by the Chi-square results (X^2 = 293.551; df = 4; P < 0.001) for this variable, which show the lack of business diversification influences the contribution of construction SMEs to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

5.2.6.9.8 Lack of JV strategy adoption affects construction SME performance and contribution to economic growth

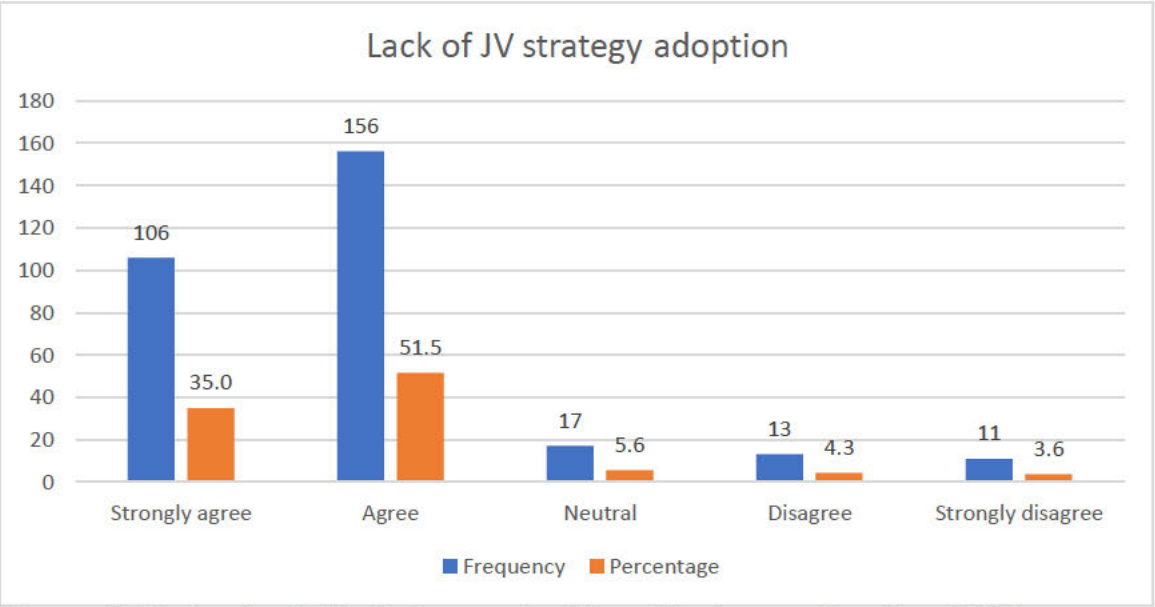

Figure 5.68: Lack of JV strategy adoption affects construction SME performance and contribution to economic growth

Reddy (2008: 12) highlights that B-BBEE fosters collaboration of small construction businesses with larger firms through JVs, which facilitate the growth of construction SMEs. Based on this, survey respondents were asked to state how likely lack of JV strategy adoption influences the contribution of construction SMEs to economic growth. The findings (Figure 5.66) reveal an overwhelming majority, nearly 90 percent of the respondents, agreed lack of adoption of JV strategies affects construction SME performance and contribution to economic growth, with 51.5 percent that agreed and 35 percent that strongly agreed, while5.6 percent of respondents remained neutral, 4.3 percent disagreed and only 3.6 percent strongly disagreed with this statement. A Chi-square test was further conducted to confirm these findings. The results (X^2 = 293.551; df = 4; P < 0.001) for this variable, show that a lack of JV strategy adoption influences construction SME performance and contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

According to Mba and Agumba (2016: 267), JVs in SA have not yielded positive results, particularly with international companies, instead, JVs have been of great concern as these have resulted in project delays and disruptions. Bikitsha and Amoah (2022: 2035) argue the reason JVs are not yielding to the promise, is due to construction SMEs being fragile and volatile in nature.

5.2.6.9.9.Lack of interest to expand to other provinces affects the contribution of construction SMEs to economic growth

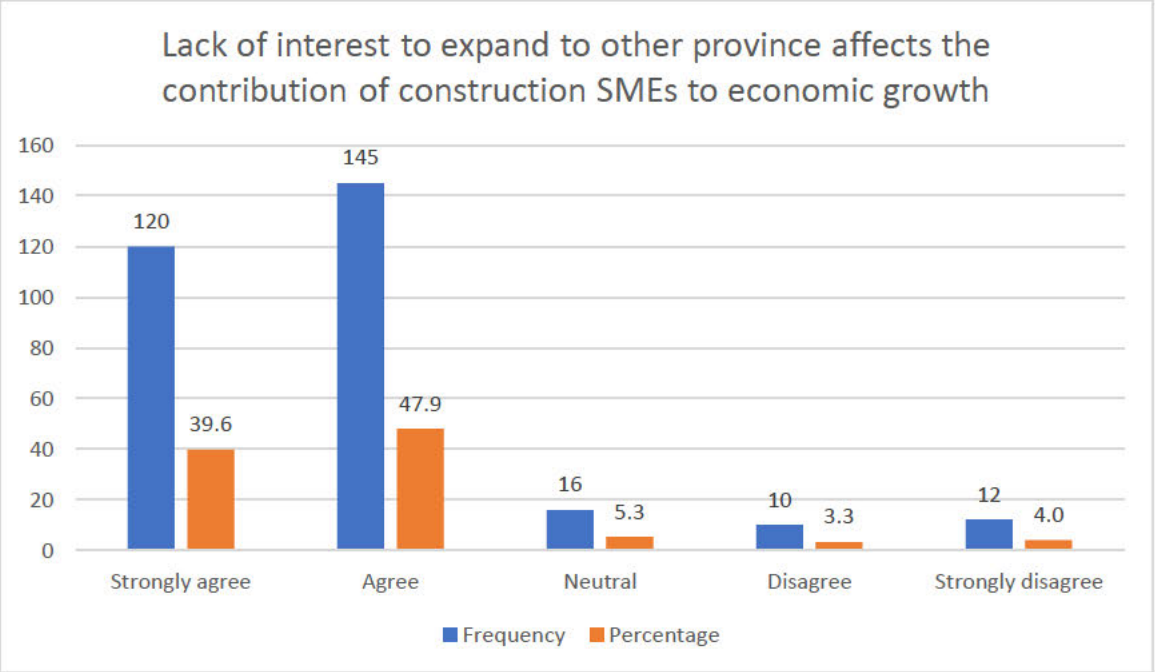

Figure 5.69: Lack of interest to expand to other provinces affects the contribution of construction SMEs to economic growth

Khamaksorn *et al.* (2020: 10) assert many businesses across the world have recently attempted various business growth and expansion strategies, in addition to pursuing other forms of business. Survey respondents were asked to state how likely lack of interest to expand to other provinces influences the contribution of construction SMEs to economic growth.

As shown (Figure 5.67) above, an overwhelming majority of nearly 90 percent of respondents agreed that lack of interest to expand to other provinces affects the contribution of construction SMEs to economic growth, with 47.9 percent that agreed and 39.6 percent that strongly agreed, while four percent of the respondents remained neutral, four percent strongly disagreed and only 3.3 percent disagreed with this statement. These findings are confirmed by the Chi-square test results ($X^2 = 289.822$; df = 4; $P < 0.001$) for this variable, which show a lack of interest to expand to other provinces affects the contribution of construction SMEs to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8). These findings are supported by

Selamat *et al.* (2022: 592) who state lack of financial back-up by construction SMEs influence their ability to expand.

Table 5.12: Component matrix: Influence of access to market on construction SMEs' contribution to economic growth in the Eastern Cape province

Component Matrix[a]

	Component 1
The poor economy in the Eastern Cape results in the government having less construction SME projects in the Eastern Cape	.885
Lack of construction SME projects in the Eastern Cape affects the construction SMEs' contribution to economic growth.	.873
Inability to provide securities for lending or borrowing purposes affect construction SMEs in obtaining construction projects.	.893
Inability to obtain insurances for lending or borrowing purposes affect construction SMEs in obtaining construction projects	.893
Lack of governmental support to prioritise construction SMEs on tenders affects construction SMEs' contribution to economic growth.	.877
Lack of required expertise to execute some construction SME projects affect construction SMEs in acquiring additional projects.	.888
Lack of business diversification affects the contribution of construction SMEs to economic growth.	.888
Lack of adoption of joint venture strategies affect the performance of construction SMEs contribution to economic growth.	.876
Lack of interest to expand to other provinces affect the contribution of construction SMEs to economic growth.	.882

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The components indicated (Table 5.11) are a supplementary statistical analysis of the above-mentioned figures (Figure 5.59 to 5.67). The factor analysis measured the underlying constructs of the construct access to the market. Respondents indicated to only one category of component, showing a strong positive significance of 0.893 on the statements as to whether inability to provide securities for lending or borrowing purposes affects construction SMEs in obtaining construction projects and inability to obtain insurances for lending or borrowing purposes affect construction SMEs in obtaining construction projects. Similarly, a figure of 0.888 is revealed for respondents who indicated on statements that lack

of required expertise to execute some construction SME projects and lack of business diversification affect construction SMEs. A value of 0.885 is achieved for respondents who indicated the poor economy in the Eastern Cape result in the government having less construction SME projects in the Eastern Cape. For respondents who indicated that lack of interest by construction SMEs to expand to other provinces affects their contribution to economic growth, a value of 0.882 is achieved. While on the variable pertaining to government support, the component test indicates a positive significance of 0.877, indicating respondents believed construction SMEs' contribution to economic growth would be enhanced when government prioritises construction SMEs on tenders.

Lastly, other variables on whether lack of adoption of JV strategies affects construction SME performance and contribution to economic growth, as well as whether lack of construction SME projects in the Eastern Cape affects the construction SME contribution to economic growth, which showed 0.876 and 0.873, respectively. It can be seen the component achieved from each matric is very close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.10 Influence of payment delays on construction SMEs' contribution to economic growth

In this section, construction SMEs were asked to state how likely it is that delays in payments influence their contribution to economic growth.

5.2.6.10.1 Delays in payments by government departments affect construction SMEs' contribution to economic growth

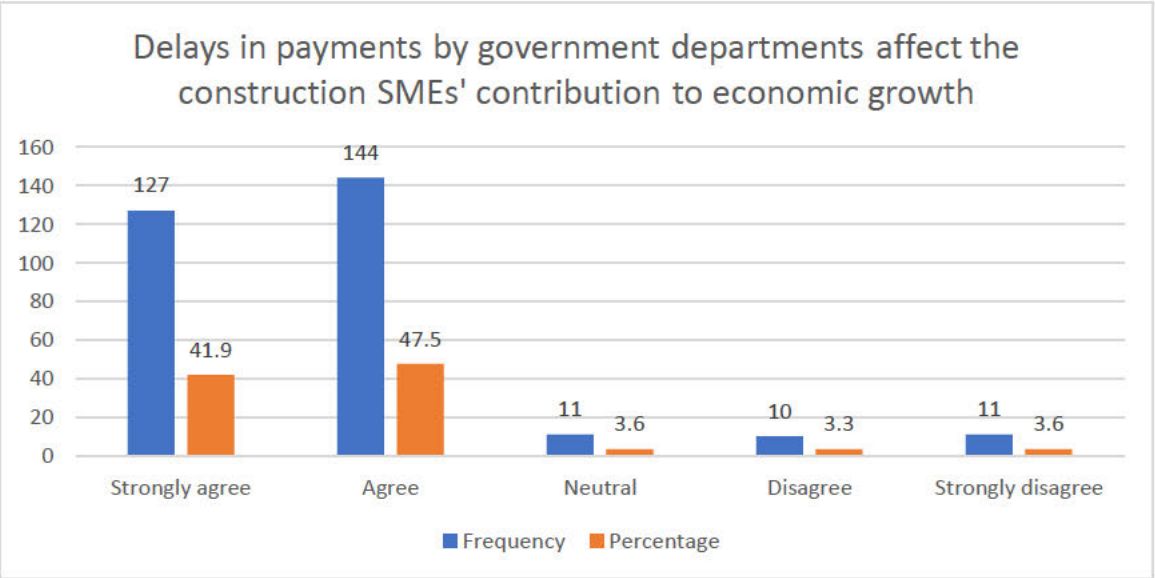

Figure 5.70: Delays in payments by government departments affect construction SMEs' contribution to economic growth

The survey respondents were asked to indicate the likelihood that delays in payment by government departments influence the contribution of construction SMEs to economic growth. As revealed (Figure 5.68) above, an overwhelming number (89.4 percent) of the respondents agreed delays in payment by government departments affect construction SMEs' contribution to economic growth, with 47.5 percent that agreed and 41.9 percent that strongly agreed, while 3.6 percent of respondents remained neutral and 3.6 percent strongly disagreed, only 3.3 percent of the respondents disagreed with the statement. These findings are supported by the Chi-square test results (X^2 = 310.977; df = 4; P < 0.001) for this variable, which show the contribution of construction SMEs is influenced by delays in payment by government departments. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Hosken (2019: 1) and Thwala and Mvubu (2009: 355), who discovered delays in payment for work done for government bodies is a huge challenge for construction SMEs; as a result, some of these businesses have filed for bankruptcy.

5.2.6.10.2 Delays in payment by the private sector affect construction SMEs' contribution to economic growth

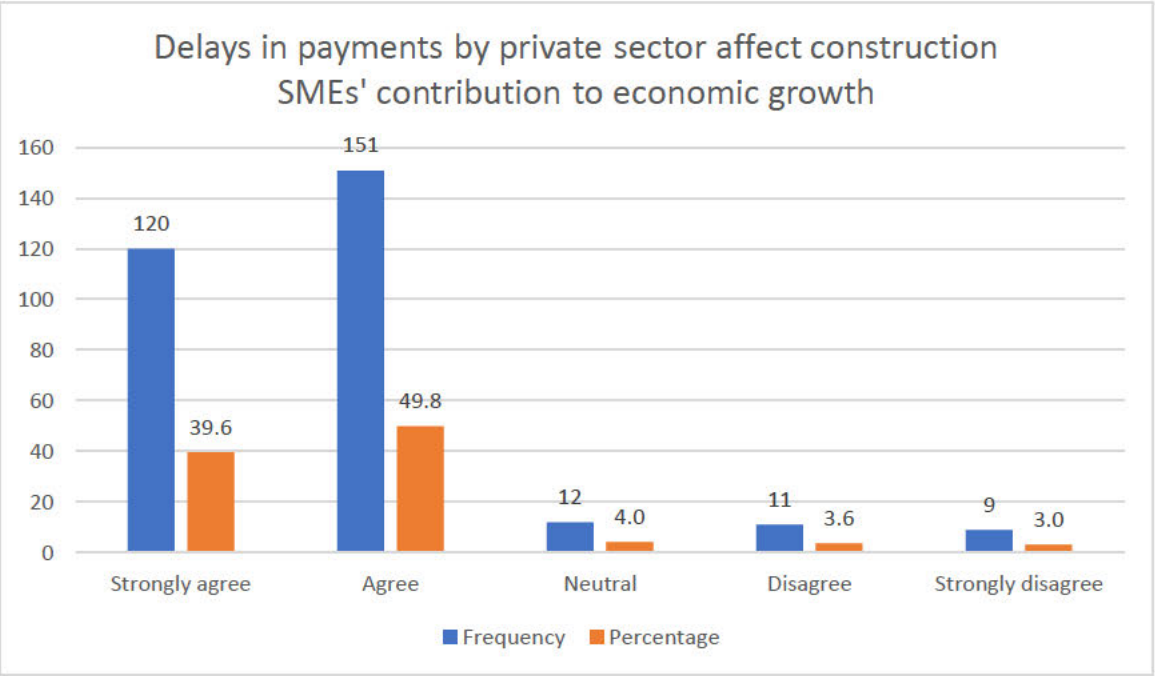

Figure 5.71: Delays in payment by the private sector affect construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it is that delays in payment by the private sector influence the contribution of construction SMEs to economic growth. The findings (Figure 5.69) above show an overwhelming majority (89.4 percent) respondents agreed delays in payment by the private sector affect construction SMEs' contribution to economic growth, with 49.8 percent that agreed and 39.6 percent that strongly agreed, while four percent of the respondents remained neutral, 3.6 percent disagreed and only three percent disagreed with this. A Chi-square test was further conducted to confirm the findings and the results ($X^2 = 316.587$; $df = 4$; $P < 0.001$) for this variable show the contribution of construction SMEs is affected by delays in payment by the private sector. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings agree with Bikitsha and Amoah (2022: 2033), who found delay in payments by private clients was a key challenge facing South African construction SMEs, resulting in these firms not contributing efficiently to economic growth.

5.2.6.10.3 Delays in payment by the community and/or private individuals affect construction SMEs' contribution to economic growth

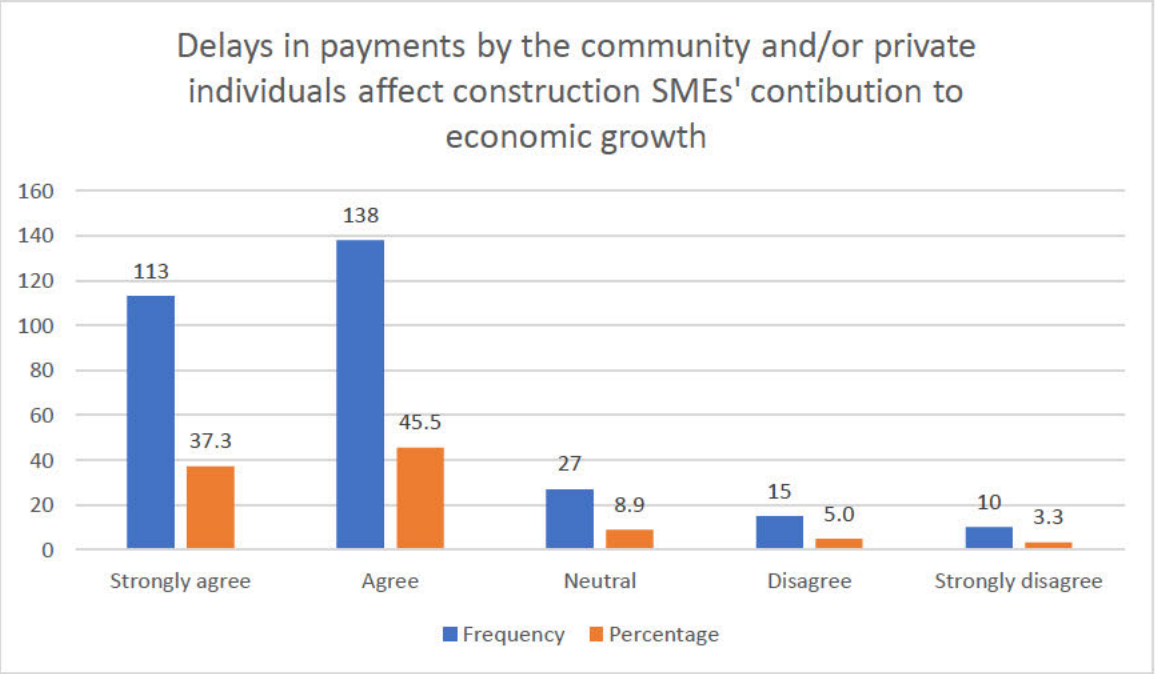

Figure 5.72: Delays in payment by the community and/or private individuals affect construction SMEs' contribution to economic growth

Gqoboka *et al*. (2022: 1397) and Salau and Nurudeen (2022: 194) assert delays in payment make it difficult for SMEs to run their business operations, since they are unable to pay salaries and staff wages, VAT, and rental, among others. Survey respondents were asked to state how likely delays in payment by the community and/or private individuals influence the contribution of construction SMEs to economic growth.

Figure 5.70 above reveals a vast majority (82.8 percent) of respondents agreed delays in payment by the community and/or private individuals affect construction SMEs' contribution to economic growth, with 45.5 percent that agreed and 37.3 percent that strongly agreed, while 8.9 percent of the respondents remained neutral, five percent disagreed and only 3.3 percent strongly disagreed with this statement. These findings are confirmed by the Chi-square test results (X^2 = 239.360; df = 4; P < 0.001) for this variable, showing the contribution of construction SMEs is influenced by delays in payment by the community and/or

private individuals. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

5.2.6.10.4 Lack of payment monitoring systems by construction SMEs affects their contribution to economic growth

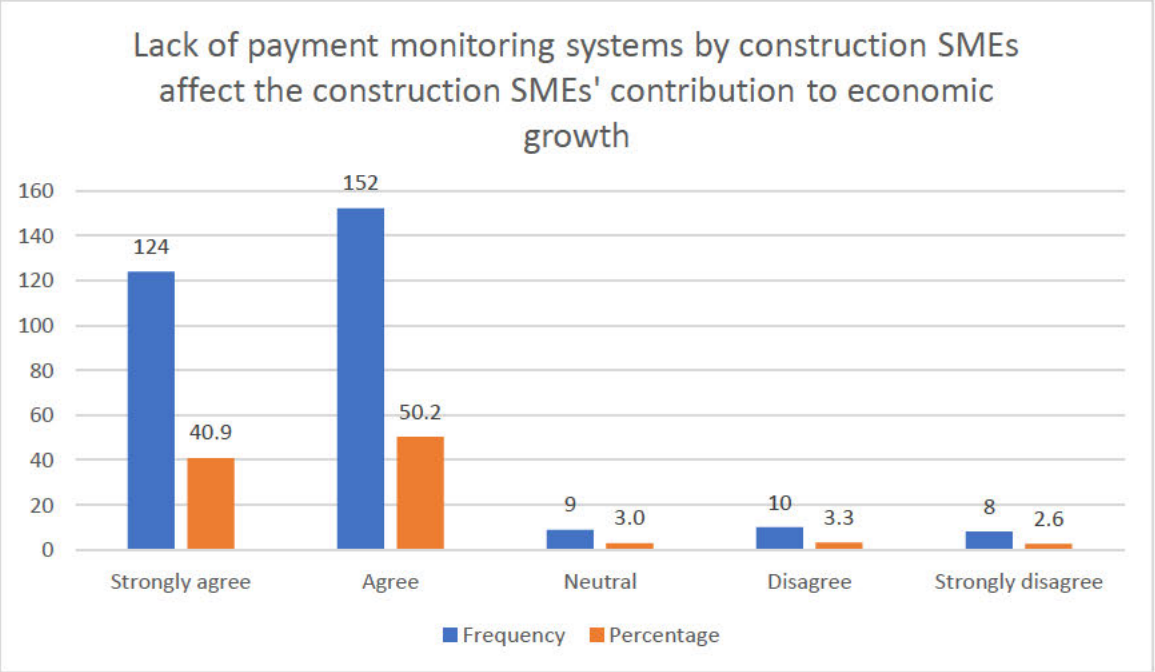

Figure 5.73: Lack of payment monitoring systems by construction SMEs affects their contribution to economic growth

The survey respondents were asked to state how likely it is for a lack of payment monitoring systems by construction SMEs to influence their contribution to economic growth. As depicted (Figure 5.71) above, an overwhelming majority (92 percent) respondents agreed a lack of payment monitoring systems by construction SMEs affects their contribution to economic growth, while 50.2 percent that agreed and 40.9 percent that strongly agreed, while 3.3 percent of the respondents disagreed and 2.6 percent strongly disagreed with this statement, only three percent remained neutral. A Chi-square test conducted reflects (X^2 = 336.026; df = 4; P < 0.001) for this variable which reveals the contribution of construction SMEs to economic growth is influenced by the lack of payment monitoring systems. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Abe *et al*. (2015: 10), who claim the contributing factor to delay in payments of SMEs is that many SMEs do not use a proper accounting system for the monitoring of business funds.

5.2.6.10.5 Extended debtor payment processes for completed works affect the construction SMEs' contribution to economic growth

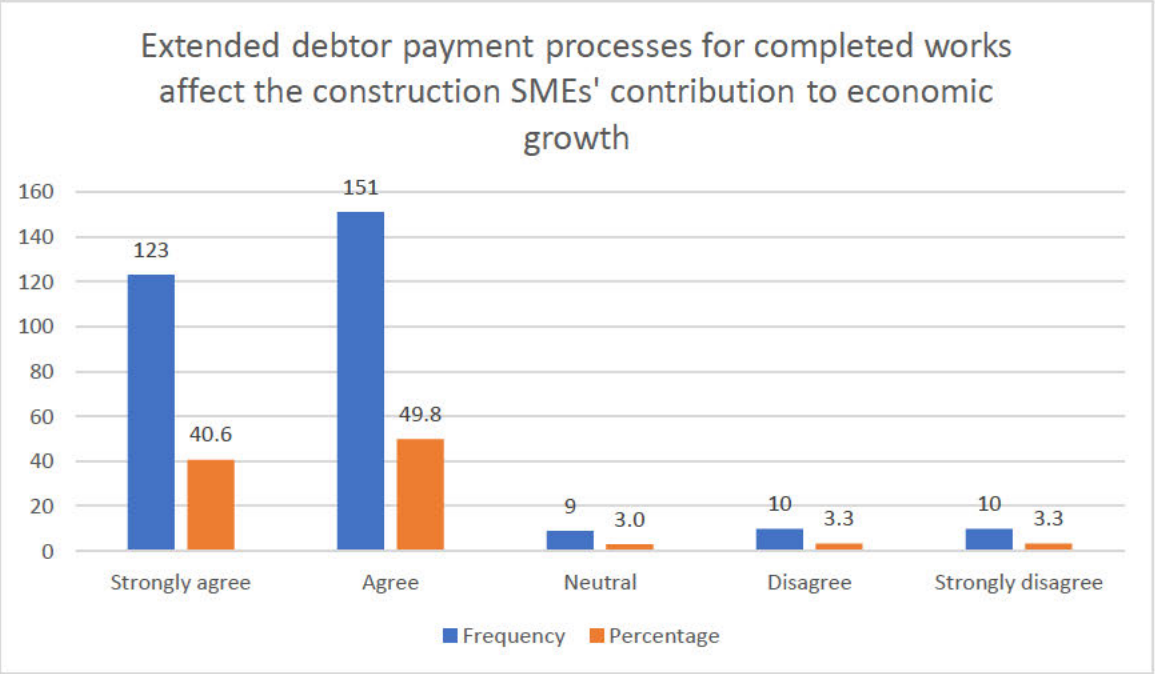

Figure 5.74: Extended debtor payment processes for completed works affect the construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely extended debtor payment processes for completed works influence the contribution of construction SMEs to economic growth. Figure 5.72 above shows an overwhelming majority (91.4 percent) of the respondents agreed that extended debtor payment processes for completed works affect the construction SMEs' contribution to economic growth, with 49.8 percent that agreed and 40.6 percent that strongly agreed, while 6.6 percent of the respondents disagreed and only three percent of respondents remained neutral. These results are further supported by the Chi-square test results (X^2 = 327.545; df = 4; P < 0.001) for this variable, which show the contribution of construction SMEs is affected by extended debtor payment processes for completed works. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

Table 5.13: Component matrix: The influence of delays in payments affects the construction SMEs' contribution to economic growth

Component Matrix[a]

	Component 1
Delays in payment by government departments affect construction SMEs' contribution to economic growth.	.853
Delays in payment by the private sector affect construction SMEs' contribution to economic growth.	.813
Delays in payment by the community and/or private individuals affect construction SMEs' contribution to economic growth.	.739
Lack of payment monitoring systems by construction SMEs affect the construction SMEs' contribution to economic growth.	.883
Extended debtor payment processes for completed works affect the construction SMEs' contribution to economic growth.	.819

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The components shown (Table 5.12) are a supplementary statistical analysis of the above-mentioned figures (Figure 5.68 to 5.72). The factor analysis measured the underlying constructs of the delays in payments construct. The respondents indicated to only one category of component, showing a strong positive significance of 0.883 on the statement as to whether lack of payment monitoring systems by construction SMEs affects the construction SMEs' contribution to economic growth. A figure of 0.853 is revealed for respondents who indicated delays in payment by government departments affect construction SMEs' contribution to economic growth. While a value of 0.819 is achieved for respondents who indicated extended debtor payment processes for completed works affect the construction SMEs' contribution to economic growth, other variables on whether delays in payment by the private sector affect construction SMEs' contribution to economic growth and delays in payment by the community and/or private individuals affect construction SMEs' contribution to economic growth showed 0.813 and 0.739, respectively. It can be seen the component achieved from each matric is close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the

component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.11 Influence of networking resources on construction SMEs' contribution to economic growth

In this section, construction SMEs were asked to state how likely it is that networking resources influence their contribution to economic growth.

5.2.6.11.1 Lack of business networks with formal professionals to source new business ideas affects construction SMEs' contribution to economic growth

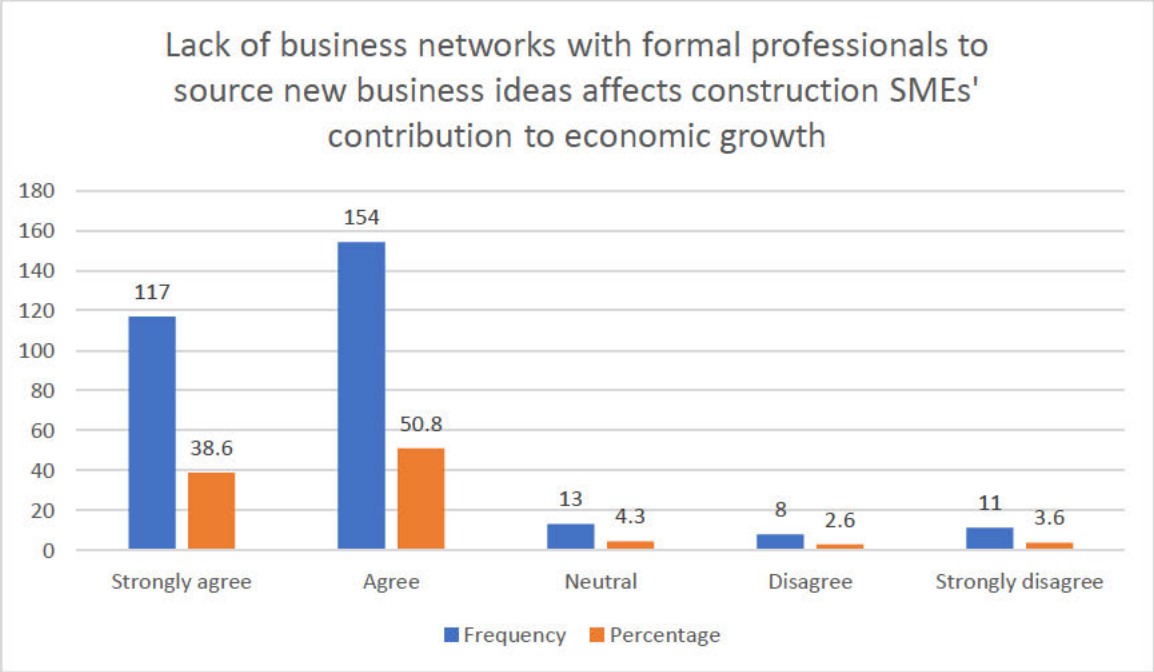

Figure 5.75: Lack of business networks with formal professionals to source new business ideas affects construction SMEs' contribution to economic growth

According to Cisi and Sansalvadore (2019: 2), business networks are a strategic vehicle that offers businesses an opportunity to increase their potential for innovation, expand to other markets and improve efficiency. The survey respondents were asked to state how likely it is that a lack of business networks with formal professionals to source new business ideas influences the contribution of construction SMEs to economic growth. As depicted (Figure 5.73) above, an overwhelming majority (89.4 percent) respondents agreed lack of business

networks with formal professionals to source new business ideas affects construction SMEs' contribution to economic growth, with 50.8 percent that agreed and 38.6 percent that strongly agreed, while 4.3 percent of the respondents remained neutral, 3.6 percent strongly disagreed and only 2.6 percent disagreed with this statement. The findings are supported by the Chi-square test results (X^2 = 320.086; df = 4; P < 0.001) for this variable, which show the contribution of construction SMEs to economic growth is influenced by the lack of business networks with formal professionals to source new business ideas. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are confirmed in the literature, with Michna *et al*. (2020: 221) who found a challenge remains for construction SMEs to maximise the benefits of using business networks, due to a lack of trust and fear of being dominated by big companies from the industry

5.2.6.11.2 Inability to communicate with construction stakeholders affects construction SMEs' contribution to economic growth

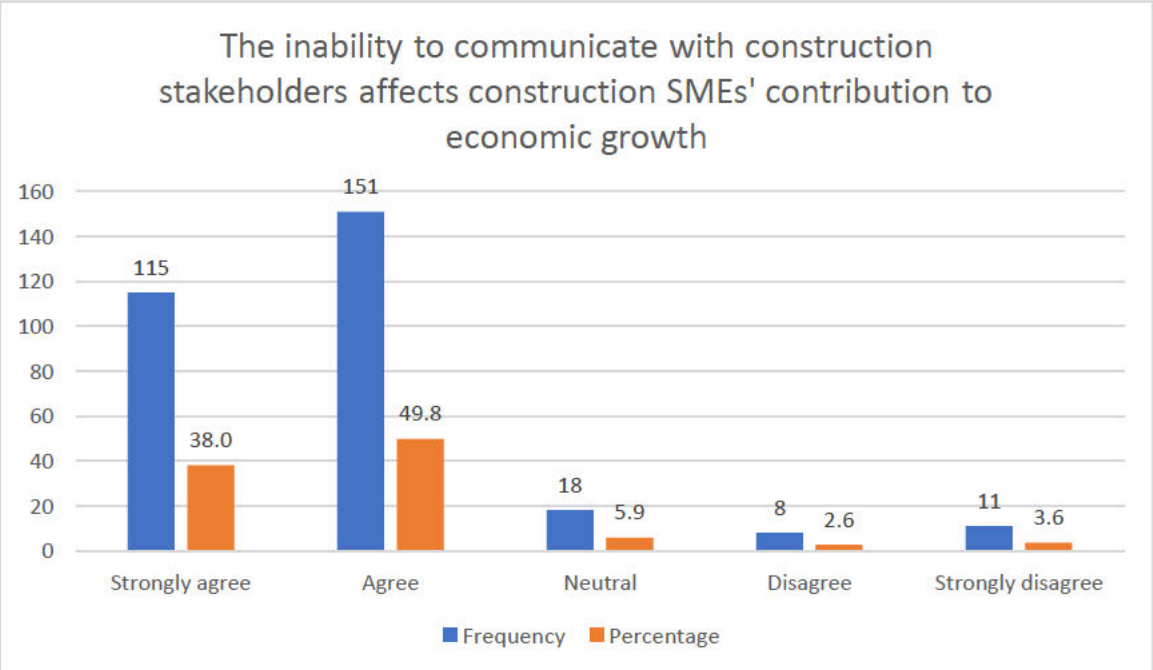

Figure 5.76: Inability to communicate with construction stakeholders affects construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it is for the inability to communicate with construction stakeholders to influence the contribution of construction SMEs to economic growth. The findings (Figure 5.74) above show an overwhelming majority (87.8 percent) of the respondents agreed the inability to communicate with construction stakeholders affects construction SMEs' contribution to economic growth, with 49.8 percent that agreed and 38 percent that strongly agreed, while 5.9 percent of respondents remained neutral, 3.6 percent strongly disagreed and only 2.6 percent disagreed. A Chi-square test was conducted to confirm these findings and the results (X^2 = 299.888; df = 4; P < 0.001) for this variable show the construction SME contribution to economic growth is affected by the inability to communicate with construction stakeholders. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

5.2.6.11.3 Unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas affects their contribution to economic growth

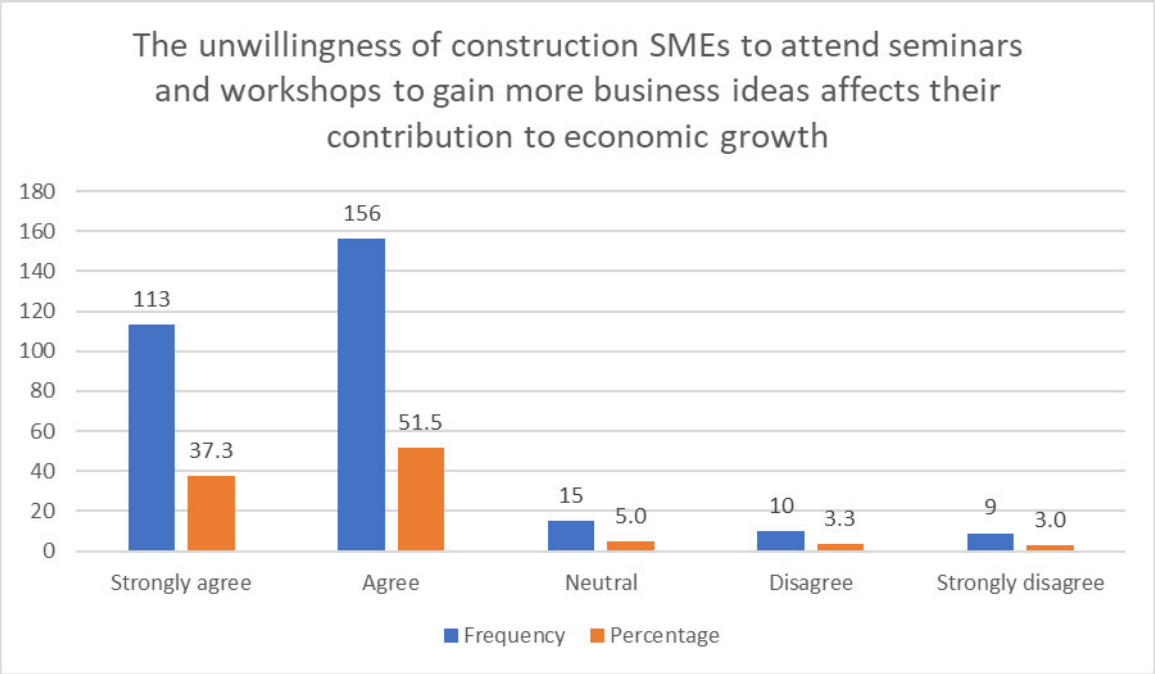

Figure 5.77: Unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas affects their contribution to economic growth

The survey respondents were asked to indicate the likelihood that the unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas influences their contribution to economic growth. As shown (Figure 5.75) above, an overwhelming majority (88.8 percent) respondents agreed the unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas affects construction SMEs' contribution to economic growth, with 37.3 percent that agreed and 37.3 percent that strongly agreed to this, while five percent of the respondents remained neutral, 3.3 percent disagreed and only three percent strongly disagreed with this statement. A Chi-square test was further conducted to confirm these findings. The results (X^2 = 315.993; df = 4; P < 0.001) for this variable show the unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas influences their contribution to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8). These findings are supported by Abdissa and Fitwi (2016: 48), who indicated the main challenges affecting SMEs include lack of skills, human resources, and lack of interest in training and workshops.

5.2.6.11.4 Construction SMEs' failure to use social media as a business marketing strategy affects their contribution to economic growth

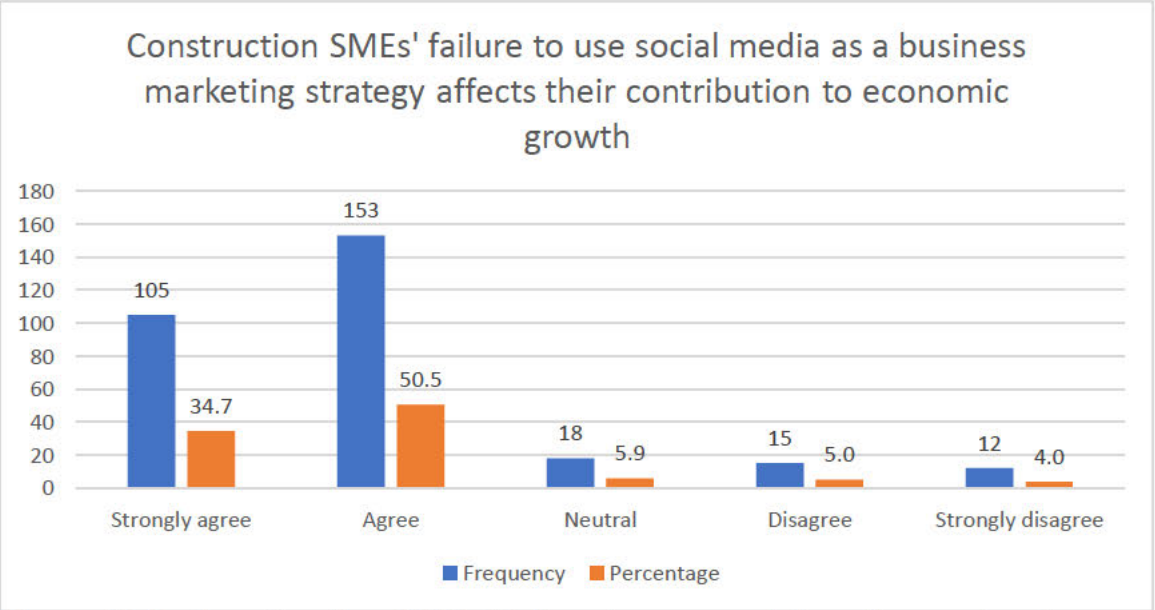

Figure 5.78: Construction SMEs' failure to use social media as a business marketing strategy affects their contribution to economic growth

The survey respondents were asked to state how likely It is that construction SMEs' failure to use social media as a business marketing strategy influences the contribution of construction SMEs to economic growth. Figure 5.76 above reveals a vast majority (85.2 percent) respondents agreed construction SMEs' failure to use social media as a business marketing strategy affects their contribution to economic growth, with 50.5 percent that agreed and 34.7 percent that strongly agreed, while 5.9 percent of the respondents remained neutral, five percent disagreed and only four percent strongly disagreed with this statement. These findings are supported by the Chi-square test results (X^2 = 276.653; df = 4; P < 0.001) for this variable, which show construction SMEs' contribution to economic growth is affected by their failure to use social media as a business marketing strategy. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by the literature, as Rugova and Prenaj (2016: 86) claim the use of social media as a low-cost marketing strategy for construction SMEs has not been explored, particularly in developing countries. Hence, Lekhanya (2013: 4) advocates for business owners/managers to use social media, particularly Facebook and twitter, to market their businesses since social media is growing rapidly in the South African business and social sectors.

5.2.6.11.5 Inability to form networks in the business community to gain more ideas on business growth affects construction SMEs' contribution to economic growth

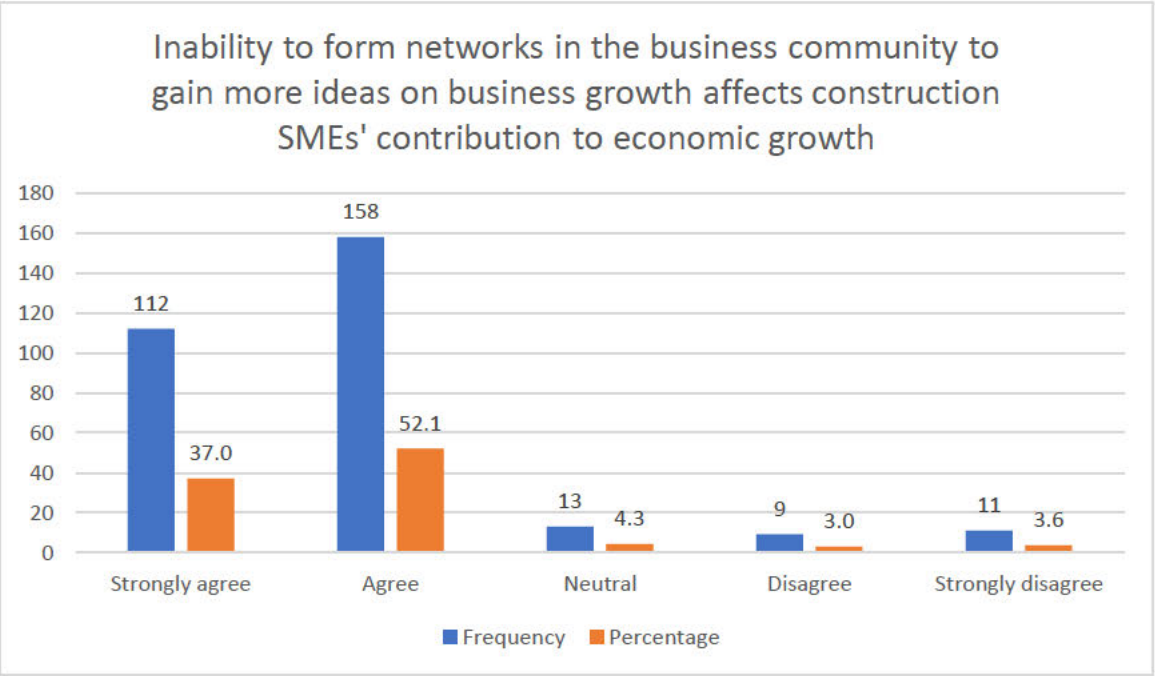

Figure 5.79: Inability to form networks in the business community to gain more ideas on business growth affects construction SMEs' contribution to economic growth

Cisi and Sansalvadore (2019: 2) state collaborations within SMEs through business networking has generated valuable benefits, such as increased production quantities and entering of new markets. However, literature shows a challenge remains for construction SMEs to maximise the benefits of using business networks, due to a lack of trust and fear of being dominated by big companies from the industry (Michna *et al.* 2020: 221).

The survey respondents were asked to state how likely it is for the inability to form networks in the business community to gain more ideas on business growth to influence the contribution of construction SMEs to economic growth. As shown (Figure 5.77) above, an overwhelming majority (89.1 percent) respondents agreed the inability to form networks in the business community to gain more ideas on business growth affects construction SMEs' contribution to economic growth, with 52.1 percent that agreed and 37 percent that strongly agreed, while 4.3 percent of the respondents remained neutral, 3.6 percent strongly disagreed and only three percent disagreed with this statement. A Chi-square test was performed and the results (X^2 = 322.066; df = 4; P < 0.001) for this variable show construction SMEs' contribution to economic growth is influenced by their inability to form networks in the business community to gain more ideas on business growth. This implies the

result for this variable was statically significant and not due to chance (Appendix 8).

Table 5.14: Component matrix: The influence of networking resources on the construction SMEs' contribution to economic growth

Component Matrix[a]

	Component 1
Lack of business networks with formal professionals to source new business ideas affect construction SMEs contribution to economic growth.	.757
The inability to communicate with construction stakeholders affects construction SMEs contribution to economic growth.	.740
The unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas affect construction SMEs contribution to economic growth.	.789
Construction SMEs failure to use social media as a business marketing strategy affects construction SMEs contribution to economic growth.	.785
Inability to form networks in the business community to gain more ideas on business growth affects construction SMEs contribution to economic growth.	.831

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The components shown (Table 5.13) are a supplementary statistical analysis of the above-mentioned figures (Figure 5.73 to 5.77). The factor analysis measured the underlying constructs of the construct networking resources. The respondents indicated to only one category of component, showing a strong positive significance of 0.831 on the statement as to whether inability to form networks in the business community to gain more ideas on business growth affects construction SMEs' contribution to economic growth. A figure of 0.789 reflects respondents who indicated regarding the statement that the unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas affects their contribution to economic growth. A value of 0.785 is shown for respondents who indicated construction SMEs' failure to use social media as a business marketing strategy affects their contribution to economic growth.

Other variables on whether lack of business networks with formal professionals to source new business ideas affects construction SMEs' contribution to economic growth and the inability to communicate with construction stakeholders affects construction SMEs contribution to economic growth, showed 0.757 and 0.740, respectively. It can be seen the component achieved from each matric is close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.12 Influence of social barriers on the performance of construction SMEs

In this section, construction SMEs were asked to state how likely it is social barriers influence their performance.

5.2.6.12.1 Lack of societal trust in quality of services provided by construction SMEs affects their performance

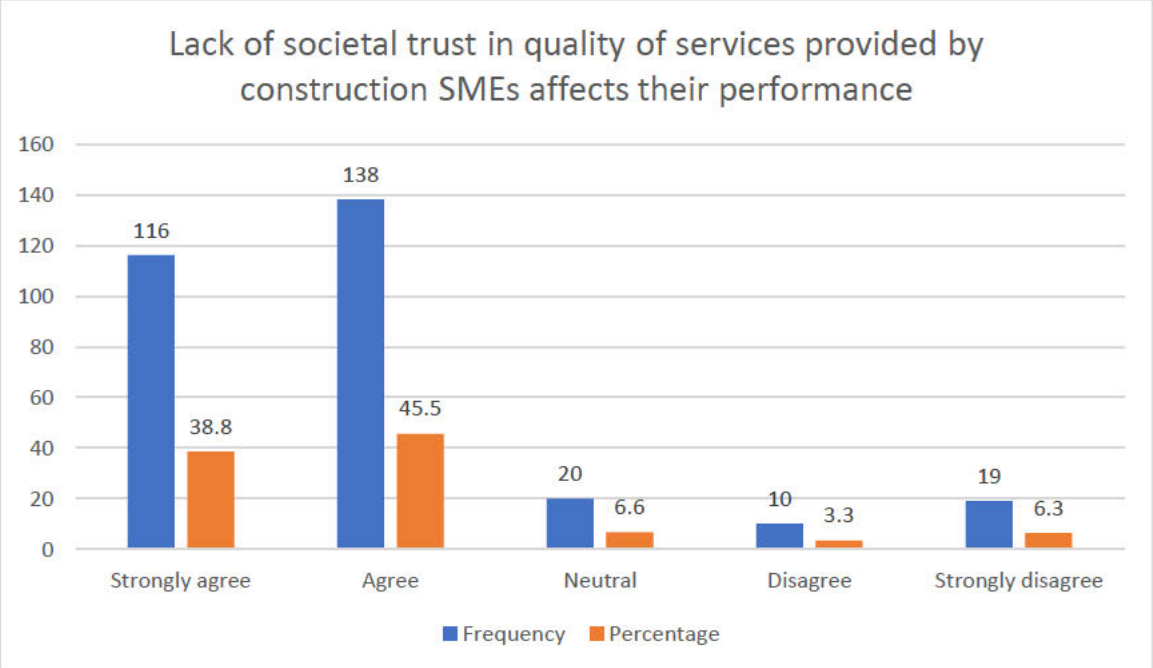

Figure 5.80: Lack of societal trust in quality of services provided by construction SMEs affects their performance

The survey respondents were asked to state how likely it is for a lack of societal trust in quality of services provided by construction SMEs to influence their performance. As depicted (Figure 5.78) above, a vast majority (84.3 percent)

respondents agreed lack of societal trust in the quality of services provided by construction SMEs affects their performance, with 45.5 percent that agreed and 38.8 percent that strongly agreed, while 6.6 percent of the respondents remained neutral, 6.3 percent strongly disagreed, and 3.3 percent disagreed with this statement. These results are supported by the Chi-square test results (X^2 = 247.512; df = 4; P < 0.001) for this variable, which indicate the lack of societal trust in quality of services provided by construction SMEs influences their performance. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These results support the ongoing concern of inferior quality of completed works by inexperienced SMEs that are a hindrance to the performance of construction SMEs (Reddy 2016: 468).

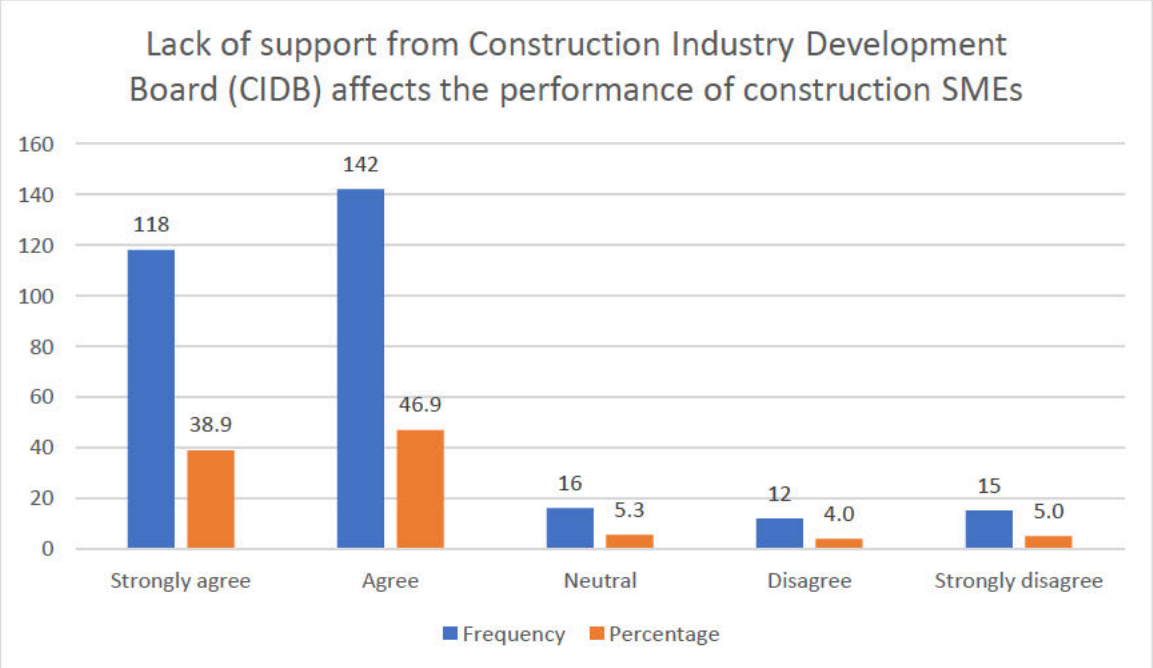

Figure 5.81: Lack of support from CIDB affects the performance of construction SMEs

5.2.6.12.2 Lack of support from CIDB affects the performance of construction SMEs

The survey respondents were asked to indicate the likelihood that a lack of support from the CIDB influences the performance of construction SMEs. The findings (Figure 5.79) above show a vast majority (85.8 percent) respondents agreed that lack of support from CIDB affect the performance of construction

SMEs, with 46.9 percent that agreed and 38.9 percent that strongly agreed, while 5.3 percent of the respondents remained neutral, five percent strongly disagreed and only four percent disagreed with this statement. A Chi-square test was done to confirm the findings and the results (X^2 = 269.822; df = 4; P < 0.001) for this variable show lack of support from CIDB influence the performance of construction SMEs. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Bikitsha and Amoah (2022: 2035), who contend the CIDB is not doing enough to manage competition within the construction SMEs, which affects the performance of construction SMEs.

5.2.6.12.3 Lack of support from business consultancy services affects the performance of construction SMEs

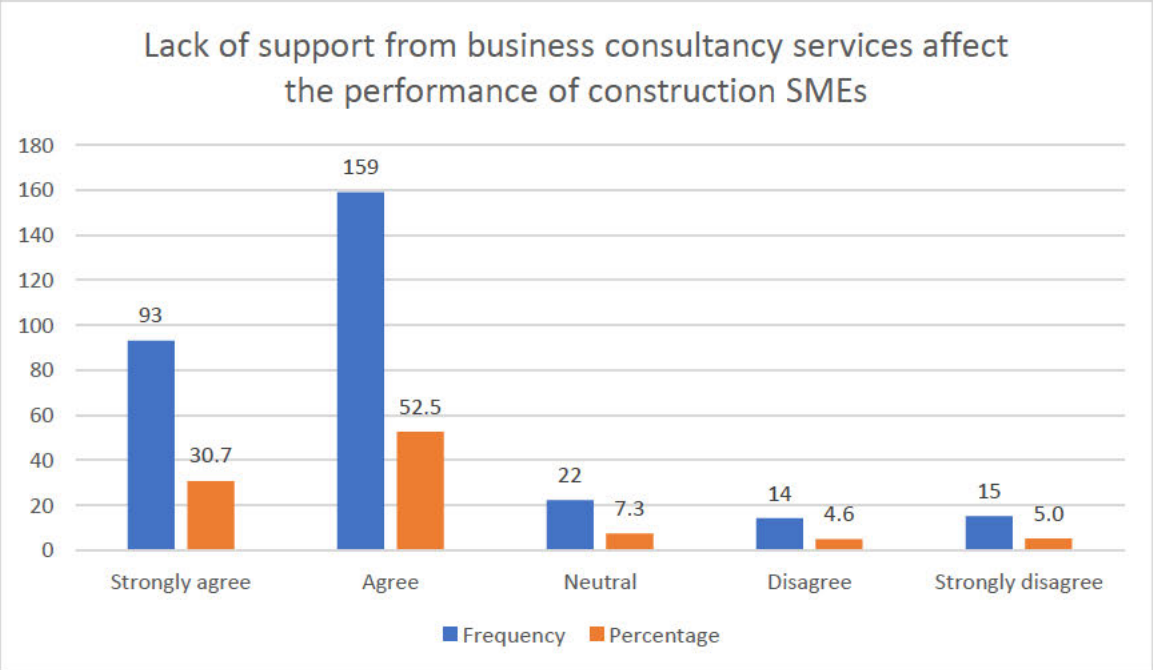

Figure 5.82: Lack of support from business consultancy services affects the performance of construction SMEs

The survey respondents were asked to state how likely it is lack of support from business consultancy services influences the performance of construction SMEs. As depicted (Figure 5.80) above, a vast majority (83.2 percent) respondents agreed lack of support from business consultancy services affects the performance of construction SMEs, with 52.5 percent agreed and 30.7 percent

strongly agreed, while 7.3 percent of the respondents remained neutral, five percent strongly agreed, and 4.6 percent disagreed with this statement. A Chi-square test was conducted and the results (X^2 = 271.835; df = 4; P < 0.001) for this variable reveal the performance of construction SMEs is influenced by lack of support from business consultancy services. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by a report generated by the NCR (2011: 32), which indicates poor knowledge transfer by consultants to SMEs is a constraint to the success of these firms when it comes to access to finance.

5.2.6.12.4 Lack of support from local communities affects the performance of construction SMEs

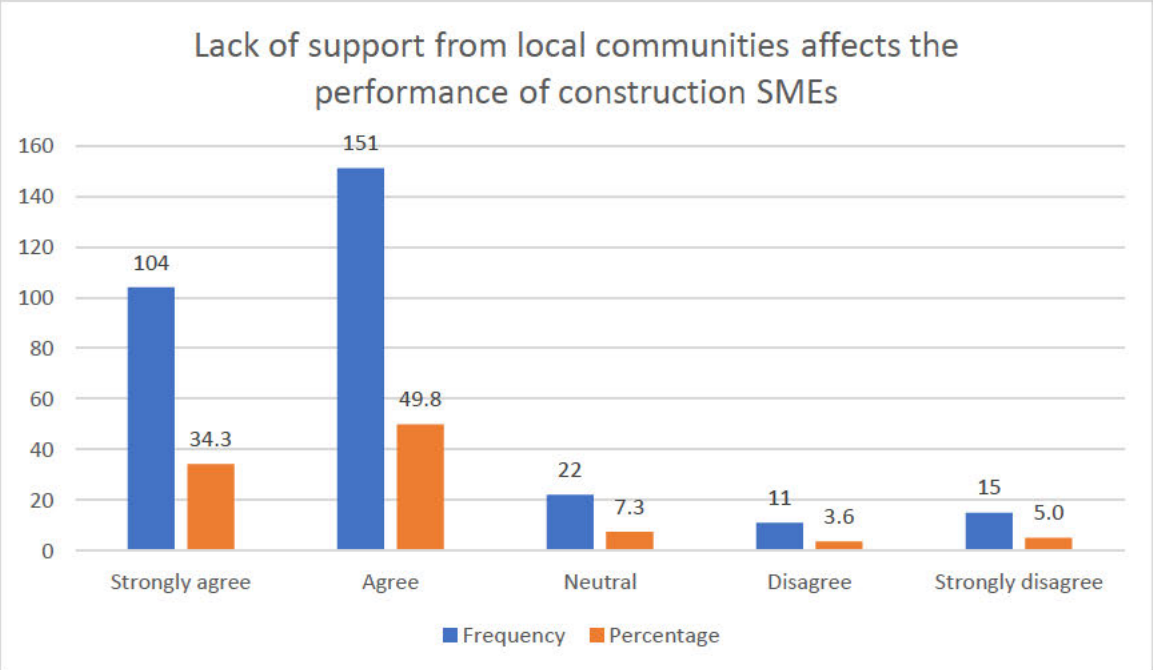

Figure 5.83: Lack of support from local communities affects the performance of construction SMEs

According to Brien and Hamburg (2014: 65), local communities are a good support system for SMEs as they allow local SMEs to collaborate and learn from each other through community development. The survey respondents were asked to state how likely it is that lack of support from local communities influences the performance of construction SMEs. The findings (Figure 5.81) above show a vast majority (84.1 percent) respondents agreed lack of support from local communities

affects the performance of construction SMEs, with 49.8 percent that agreed and 34.3 percent strongly agreed, while 7.3 percent of the respondents remained neutral, five percent strongly disagreed and only 3.6 percent disagreed with this statement. A Chi-square test was done and the results (X^2 = 265.432; df = 4; P < 0.001) for this variable confirm the performance of construction SMEs is influenced by lack of support from local communities. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

5.2.6.12.5 Lack of support from business associations in mentoring construction SMEs affects their performance

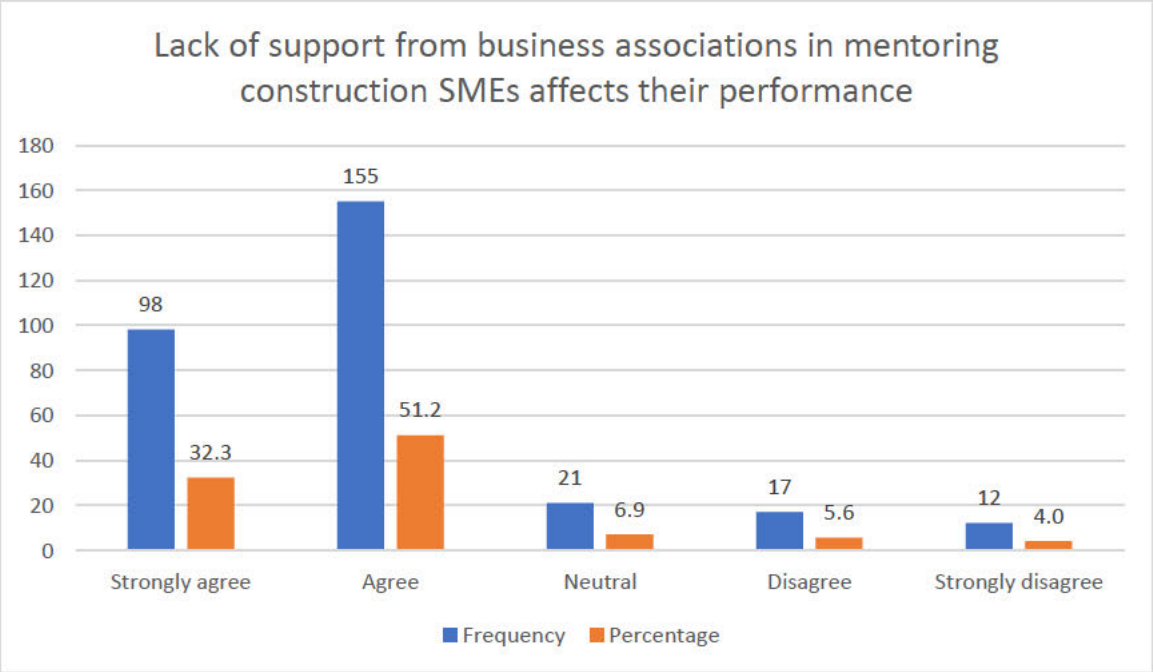

Figure 5.84: Lack of support from business associations in mentoring construction SMEs affects their performance

According to Mole *et al.* (2017: 477), to improve the performance and competitiveness of SMEs, encouragement and support from business associates or advisers cannot be ignored. Hence, the survey respondents were asked to state how likely it is that lack of support from business associations in mentoring construction SMEs influences the performance of construction SMEs. As shown (Figure 5.83) a vast majority (83.5 percent) respondents agreed lack of support from business associations in mentoring construction SMEs affects their performance, with 51.2 percent that agreed and 32.4 percent that strongly agreed, while 6.9 percent of the respondents remained neutral, 5.6 percent disagreed and

only four percent strongly disagreed with this statement. These findings are supported by the Chi-square test results (X^2 = 266.356; df = 4; P < 0.001) for this variable, which show the performance of construction SMEs is influenced by lack of support from business associations in performing mentoring. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

5.2.6.12.6 Religious differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs

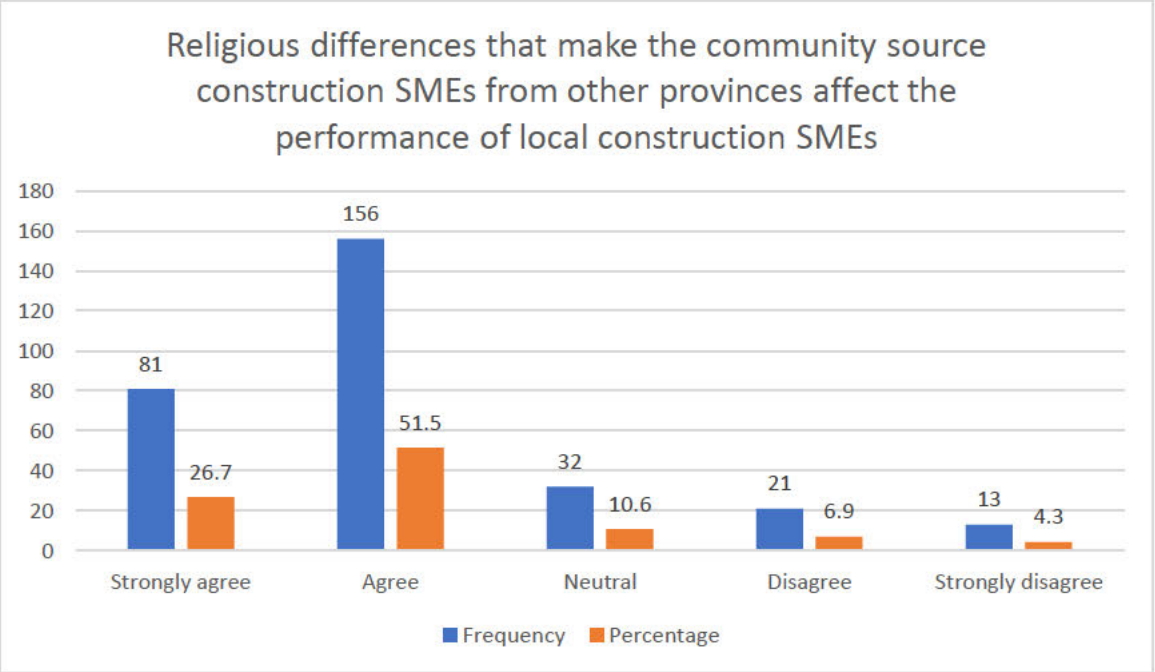

Figure 5.85: Religious differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs

The survey respondents were asked their perceptions on whether religious differences make the community source construction SMEs from other provinces, which affect the performance of local construction SMEs. The findings (Figure 5.83) above reveal a vast majority (78.2 percent) respondents agreed religious differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs, with 51.6 percent that agreed and 26.7 percent that strongly agreed, while 10.6 percent of the

respondents remained neutral, 6.9 percent disagreed and only 4.3 percent strongly disagreed with this statement. A Chi-square test was done to confirm the findings. The results (X^2 = 233.815; df = 4; P < 0.001) for this variable, show that indeed religious differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

5.2.6.12.7 differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs

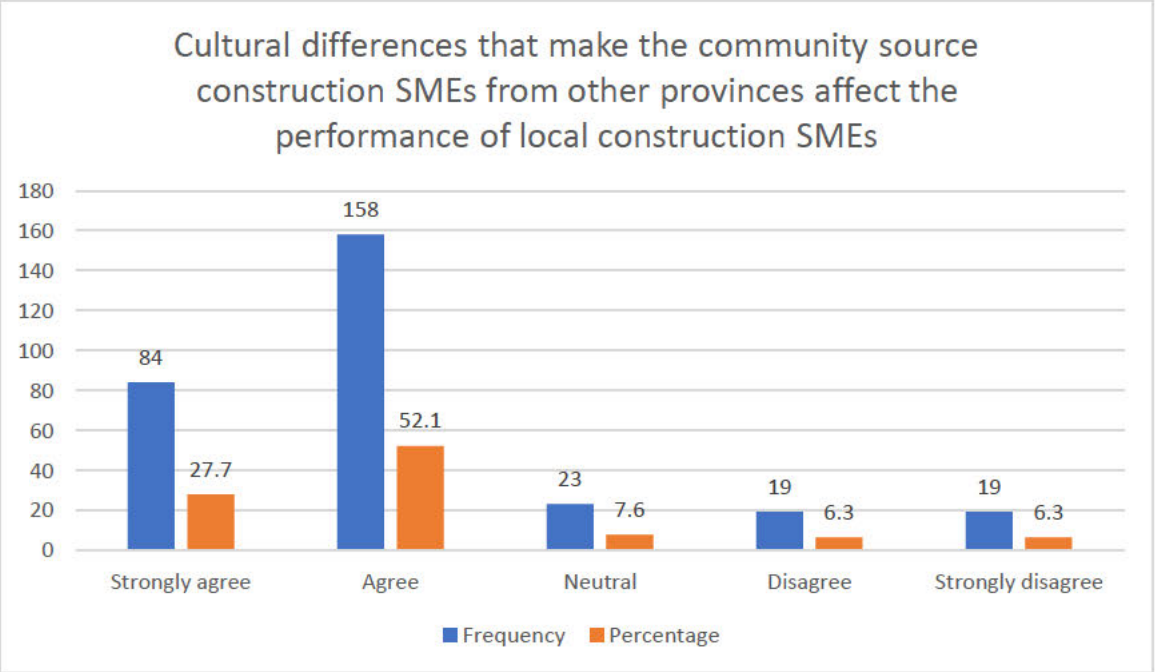

Figure 5.86: Cultural differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs

The survey respondents were asked their perceptions on whether cultural differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs. As depicted (Figure 5.84) above a vast majority (79.8 percent) respondents agreed cultural differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs, with 52.1 percent agreed and 27.7 percent strongly agreed, while 7.6 percent of respondents remained neutral, 6.3

percent disagreed, and 6.3 percent strongly disagreed with this statement. Additionally, a Chi-square test was conducted to confirm this variable and a good fit was discovered. The results (X^2 = 246.026; df = 4; P < 0.001) for this variable show cultural differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by the literature, as Eze and Ugulu (2021: 165) and Anjum (2019: 1239) state that critical factors such as culture barriers hinder the success of SMEs.

Table 5.15: Component matrix: The influence of social barriers on the performance of construction SMEs

Component Matrix[a]

	Component 1
Lack of societal trust in the quality of services provided by construction SMEs affect their performance	.800
Lack of support from construction industry development board (CIDB) affect the performance of construction SMEs.	.813
Lack of support from business consultancy services affect the performance of construction SMEs.	.799
Lack of support from local communities affect the performance of construction SMEs.	.814
Lack of support from business associations in mentoring construction SMEs affect their performance.	.811
Religious differences make the community source construction SMEs from other provinces which affect the performance of local construction SMEs.	.801
Cultural differences make the community source construction SMEs from other provinces which affect the performance of local construction SMEs.	.778

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Additionally, a component matrix statical analysis was conducted for the above-mentioned figures (Figure 5.78 to 5.84) and all components are shown (Table 5.14). The factor analysis measured the underlying constructs of the theme social

barriers. The results show respondents indicated only one category of components. On the statement whether lack of support from local communities affects the performance of construction SMEs, a strong positive significance of 0.814 is achieved. This confirms respondents believe the performance of construction SMEs is affected by the lack of support from local communities. While for another variable, on whether lack of support from the CIDB affects the performance of construction SMEs, a strong significance of 0.813 is achieved.

Regarding the statement whether religious differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs, a strong positive significance of 0.801 is achieved. This shows respondents believe religious differences within the community influence construction SMEs' performance. While on the variable regarding whether lack of support from business associations in mentoring construction SMEs affects their performance, a positive significance of 0.811 is achieved, indicating respondents believe the lack of support from business association influences their performance. Another variable, on whether lack of societal trust in the quality of services provided by construction SMEs affects their performance, a positive significance 0f 0.800 is achieved. This proves respondents believe a lack of social trust on projects delivered by construction SMEs influences their performance.

Other variables on statements whether lack of support from business consultancy services affects the performance of construction SMEs and cultural differences that make the community source construction SMEs from other provinces affect the performance of local construction SMEs, showed 0.799 and 0.778, respectively. It can be seen the component achieved from each matric is close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.13 Influence of government institutions on the contribution of construction SMEs to economic growth

In this section, construction SMEs were asked to state how likely it is government institutions influence their contribution to economic growth.

5.2.6.13.1 Unethical practises by government officials resulting in wasted tender expenses for construction SMEs affect their contribution to economic growth

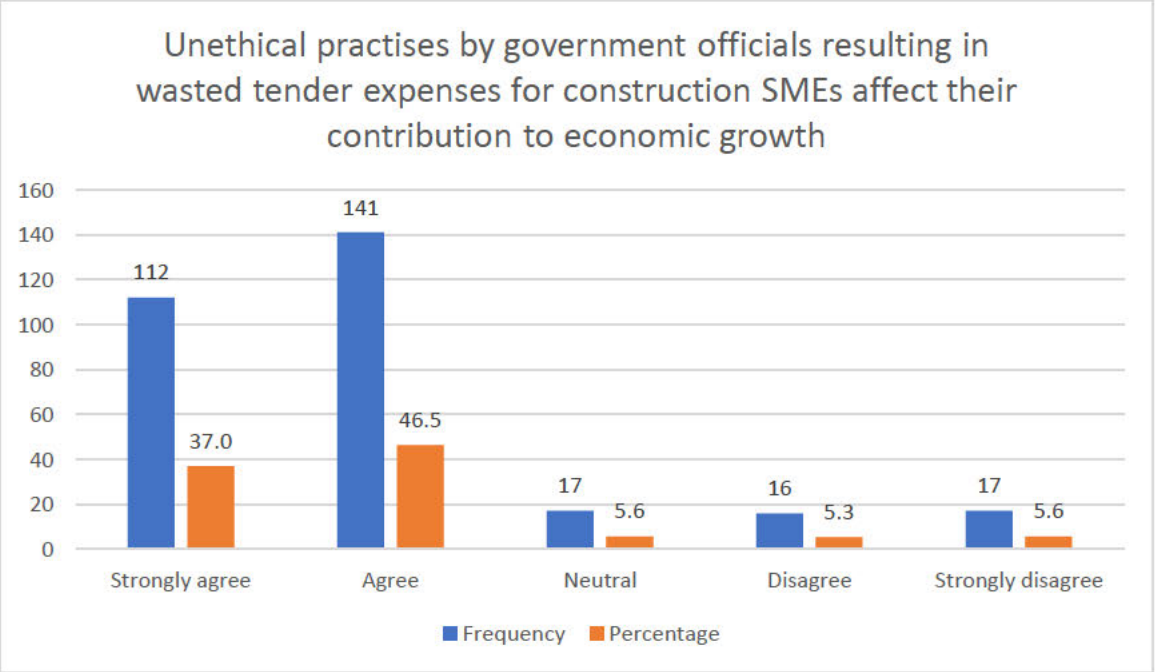

Figure 5.87: Unethical practises by government officials resulting in wasted tender expenses for construction SMEs affect their contribution to economic growth

The survey respondents were asked their perception on whether unethical practices by government officials result in wasted tender expenses for construction SMEs, which affect their contribution to economic growth. As depicted (Figure 5.85) above, a vast majority (83.5 percent) respondents agreed unethical practises by government officials result in wasted tender expenses for construction SMEs, which affect their contribution to economic growth, with 46.5 percent that agreed and 37 percent that strongly agreed, while 5.6 percent of the respondents remained neutral, 5.6 percent strongly disagreed and 5.3 percent that disagreed with this statement. A Chi-square test was conducted and the results (X^2 = 245.828; df = 4; P < 0.001) for this variable prove the contribution of construction SMEs is affected by unethical practices by government officials. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings agree with the literature, as Nordin *et al.* (2011: 330) highlight that corruption could result in wasted tender expenses, tender uncertainty, increased project costs and reputation risks for construction SMEs. Hence, Ezebilo *et al.* (2019: 2) claim businesses that engage in corruption have a lower level of performance.

5.6.2.13.2 Demands for bribes by government officials affect the contribution of construction SMEs to economic growth

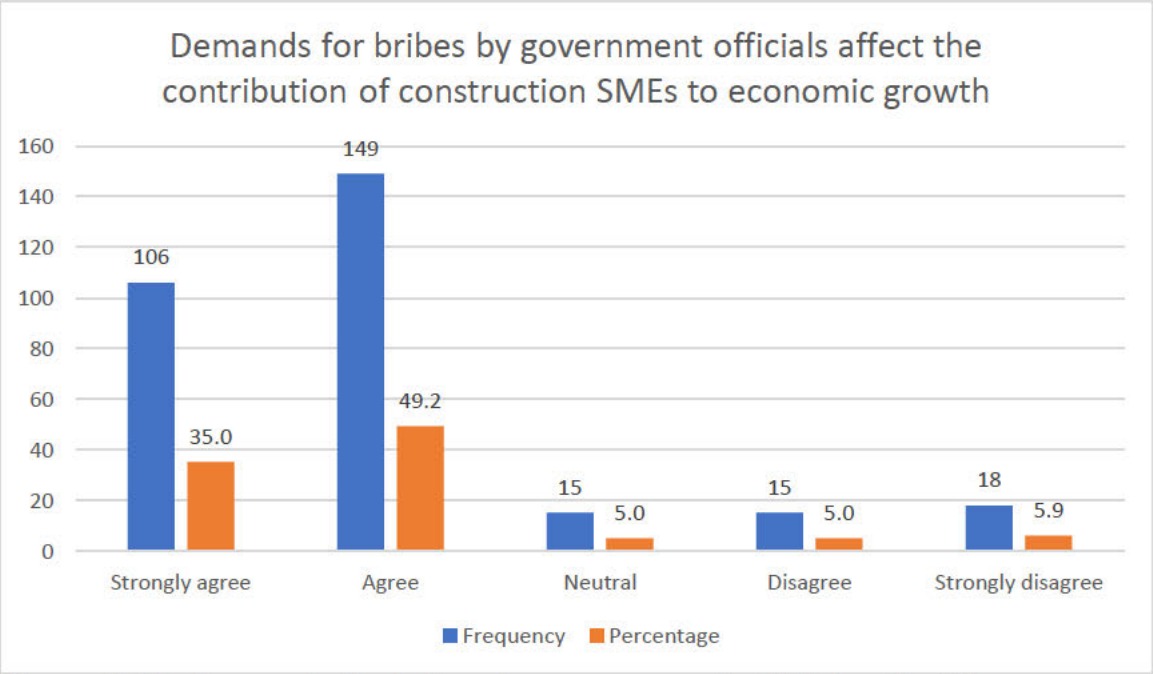

Figure 5.88: Demands for bribes by government officials affect the contribution of construction SMEs to economic growth

The survey respondents were asked to state how likely it is that demands for bribes by government officials influence the contribution of construction SMEs to economic growth. The findings (Figure 5.86) above show a vast majority (84.2 percent) respondents agreed demands for bribes by government officials affect the contribution of construction SMEs to economic growth, with 49.2 percent agreed and 35 percent strongly agreed, while five percent of the respondents remained neutral, 5.9 percent strongly disagreed and only five percent disagreed with this statement. The findings are supported by the Chi-square test results (X^2 = 261.538; df = 4; P < 0.001) for this variable, which show the contribution of construction SMEs to economic growth is influenced by demands for bribes by

government officials. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Mmbengeni *et al*. (2021: 2), who found SA is struggling with high levels of fraud and corruption, where businesses pay bribes to be awarded tenders, which negatively affect the business environment in the country.

5.2.6.13.3 Favouritism by government officials in the adjudication of construction projects affects the contribution of construction SMEs to economic growth

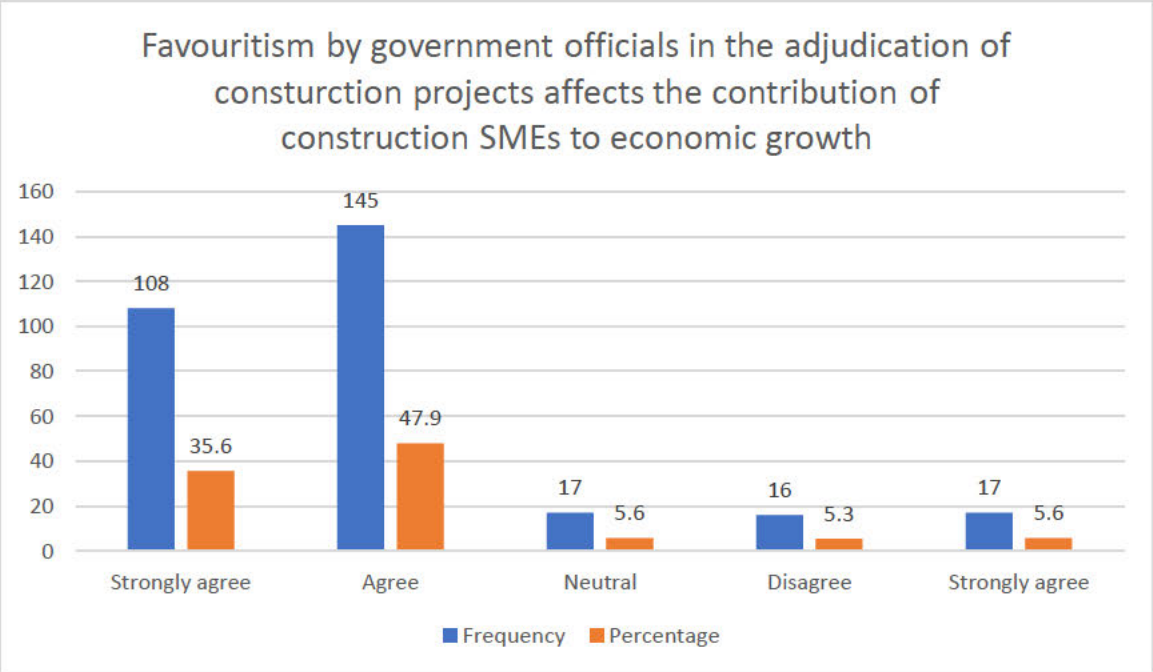

Figure 5.89: Favouritism by government officials in the adjudication of construction projects affects the contribution of construction SMEs to economic growth

The survey respondents were asked to state how likely it is favouritism by government officials in the adjudication of construction projects influences the contribution of construction SMEs to economic growth. As shown (Figure 5.87) above, a vast majority (83.5 percent) respondents agreed favouritism by government officials in the adjudication of construction projects affects the contribution of construction SMEs to economic growth, with 47.9 percent that agreed and 35.6 percent that strongly agreed, while 5.6 percent of the

respondents remained neutral, 5.6 percent strongly disagreed, and 5.3 percent disagreed with this statement. A Chi-square test was conducted to confirm the findings. The results (X^2 = 250.185; df = 4; P < 0.001) for this variable, show the contribution of construction SMEs to economic growth is affected by favouritism by government officials in the adjudication of construction projects. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Ofori-Kuragu *et al.* (2016), whose study identified factors affecting the contribution of the construction sector to include corruption from officials in the construction sector and political influence by government officials on tender awards influenced by favouritism (Ofori-Kuragu *et al*. 2016: 134).

Table 5.16: Component matrix: The influence of government institutions on the contribution of construction SMEs to economic growth

Component Matrix[a]

	Component 1
Unethical practises by government officials result in wasted tender expenses for construction SMEs, which affect their contribution to economic growth.	.929
Demands for bribes by government officials affect the contribution of construction SMEs to economic growth.	.937
Favouritism by government officials in the adjudication of construction projects affects the contribution of construction SMEs to economic growth.	.912

Extraction Method: Principal Component Analysis.
a 1 component extracted.

The components shown (Table 5.15) are a supplementary statistical analysis of the above-mentioned figures (Figure 5.85 to 5.87). The factor analysis measured the underlying constructs of the theme government institutions. The respondents have responded to only one category of component, showing a strong positive significance of 0.937 on the statement as to whether demands for bribes by government officials affect the contribution of construction SMEs to economic growth. This means respondents believe the contribution of construction SMEs to economic growth is affected by government officials who demand bribes when

executing their duties. A strong positive significance value of 0.929 is achieved, for respondents who indicated unethical practices by government officials result in wasted tender expenses for construction SMEs, which affect their contribution to economic growth. While on the variable pertaining to favouritism by government officials in the adjudication of construction projects affects the contribution of construction SMEs to economic growth, the component test indicates a positive significance of 0.912, reflecting respondents believed the contribution of construction SMEs to economic growth is affected by favouritism by government officials in the adjudication of construction projects. It can be seen the component achieved from each matric is very close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.2.6.14 Influence of regulatory factors on the contribution of construction SMEs to economic growth

In this section, construction SMEs were asked to state how likely it is regulatory factors influence their contribution to economic growth.

5.2.6.14.1 Lack of government policy support affects the contribution of construction SMEs to economic growth

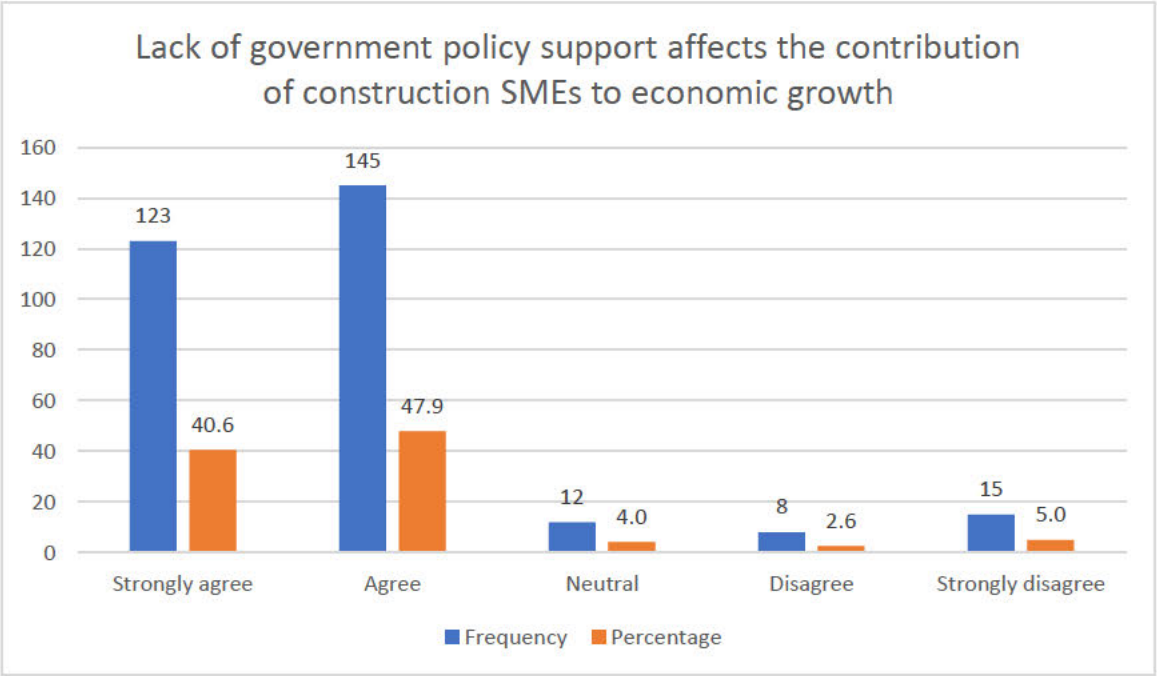

Figure 5.90: Lack of government policy support affects the contribution of construction SMEs to economic growth

The survey respondents were asked to state how likely it is the lack of government policy support influences the contribution of construction SMEs to economic growth. As depicted (Figure 5.88) above, an overwhelming majority (88.5 percent) respondents agreed lack of government policy support affects the contribution of construction SMEs to economic growth, with 47.9 percent that agreed and 40.6 percent that strongly agreed, while four percent of the respondents remained neutral, while five percent strongly disagreed and only 2.6 percent disagreed with this statement. The findings are supported by the Chi-square test results (X^2 = 300.746; df = 4; P < 0.001) for this variable, which show the contribution of construction SMEs to economic growth is influenced by lack of government policy support. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Fiseha *et al*. (2019: 212), who discovered lack of policy support by government for entrepreneurship, particularly in the rural areas, is a major constraint to the contribution of SMEs to economic growth in the Eastern Cape.

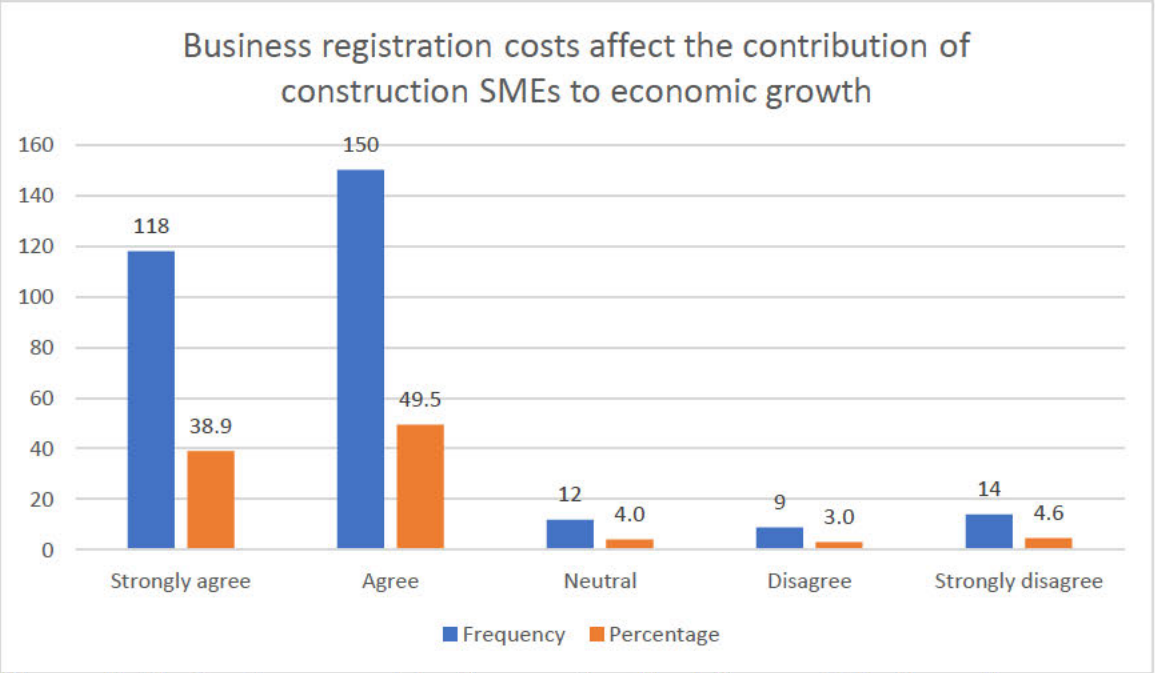

Figure 5.91: Business registration costs affect the contribution of construction SMEs to economic growth

5.2.6.14.2 Business registration costs affect the contribution of construction SMEs to economic growth

The survey respondents were asked to state how likely it is business registration costs influence the contribution of construction SMEs to economic growth. As shown (Figure 5.89) an overwhelming majority (88.4 percent) respondents agreed business registration costs affect the contribution of construction SMEs to economic growth, with 49.5 percent that agreed and 38.9 percent that strongly agreed, while four percent remained neutral, 4.6 percent strongly disagreed and only three percent disagreed with this statement. A Chi-square test was done to confirm the findings. The results indicate that (X^2 = 305.003; df = 4; P < 0.001) for this variable, which show business registration costs affect the contribution of construction SMEs to economic growth. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by the literature, as Akinyemi and Adejumo (2018: 5) found matters around business registration processes create a bottleneck for small firms during start-up phase.

5.2.6.14.3 Business licencing costs affect the contribution of construction SMEs in not obtaining government SME projects

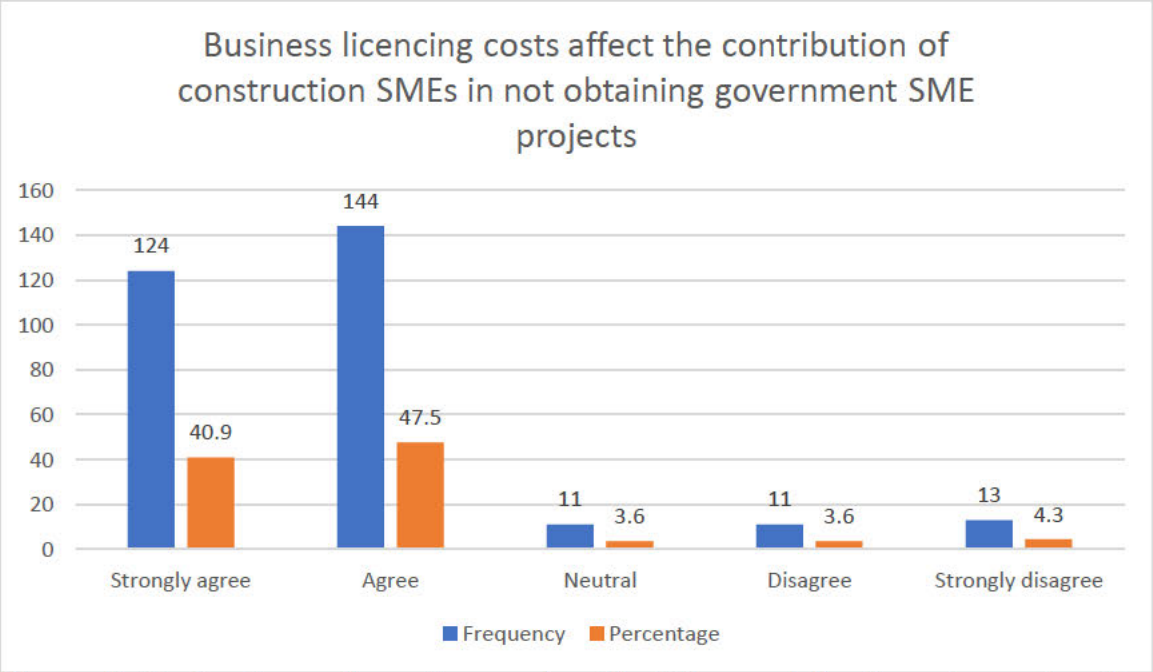

Figure 5.92: Business licencing costs affect the contribution of construction SMEs in not obtaining government SME projects

The survey respondents were asked to state how likely it is business licencing costs influence the contribution of construction SMEs in not obtaining government SME projects. The findings (Figure 5.90) above show an overwhelming majority (88.4 percent) respondents agreed business licencing costs affect the contribution of construction SMEs in not obtaining government SME projects, with 47.5 percent that agreed and 40.9 percent that strongly agreed, while 3.6 percent of respondents remained neutral, 4.3percent strongly disagreed and 3.6 percent disagreed with this statement. A Chi-square test was conducted and the results (X^2 = 299.690; df = 4; P < 0.001) for this variable confirm the contribution of construction SMEs to economic growth is influenced by business licencing costs preventing construction SMEs from obtaining government SME projects. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

The literature supports these findings, as Maingi *et al*. (2019: 1) and Abdissa and Fitwi (2016: 48) identified licencing compliance costs for SMEs are putting excessive strain on these businesses, resulting in SME owners defaulting on some of these critical requirements that affect business performance in the long-term.

5.2.6.14.3 High SARS monthly tariffs affect the contribution of construction SMEs to economic growth

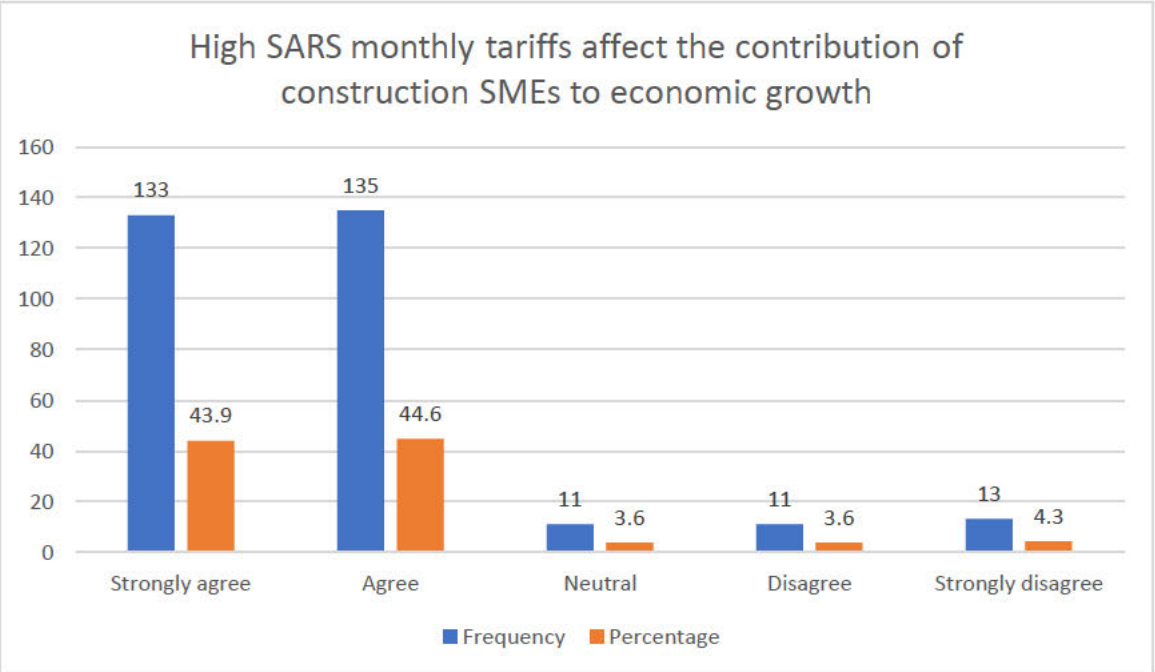

Figure 5.93: High SARS monthly tariffs affect the contribution of construction SMEs to economic growth

The survey respondents were asked to indicate the likelihood that high SARS monthly tariffs influence the contribution of construction SMEs to economic growth. As shown (Figure 5.91) above, an overwhelming majority (88.5 percent) respondents agreed high SARS monthly tariffs affect the contribution of construction SMEs to economic growth, with 44.6 percent that agreed and 43.9 percent that strongly agreed, while 3.6 percent of respondents remained neutral, 4.3 percent strongly disagreed and only 3.6 percent disagreed with this statement. To confirm these findings, a Chi-square test was conducted and the results (X^2 = 296.422; df = 4; P < 0.001) for this variable confirm the contribution of construction SMEs to economic growth is affected by high SARS monthly tariffs. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are in line with Refiloe *et al*. (2020: 136), Xu *et al*. (2019: 4) and Wang (2016: 174) discovered that high tax rates is the biggest factor that affects the growth of SME businesses.

5.2.6.14.4 Lack of clarity on tax policies affects the contribution of construction SMEs to economic growth

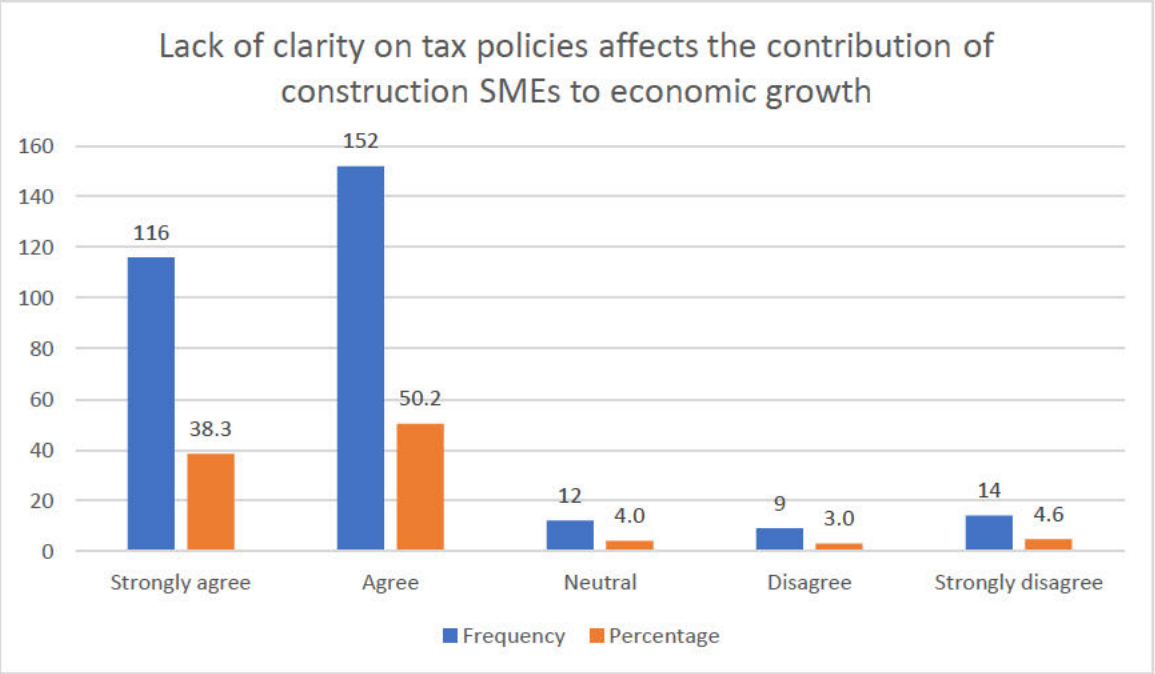

Figure 5.94: Lack of clarity on tax policies affects the contribution of construction SMEs to economic growth

The survey respondents were asked to state how likely it is the lack of clarity on tax policies influences the contribution of construction SMEs to economic growth. Figure 5.92 above reflects an overwhelming majority (88.6 percent) respondents agreed lack of clarity on tax policies affects the contribution of construction SMEs to economic growth, with 50.2 percent that agreed and 38.3 percent that strongly agreed, while 4.6 percent of the respondents strongly disagreed and a four percent remained neutral, only three percent disagreed with this statement. A Chi-square test was conducted and the results (X^2 = 307.248; df = 4; P = 0.000) for this variable show the contribution of construction SMEs to economic growth is affected by lack of clarity on tax policies. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

5.2.6.14.5 Public procurement regulations affect construction SMEs' contribution to economic growth

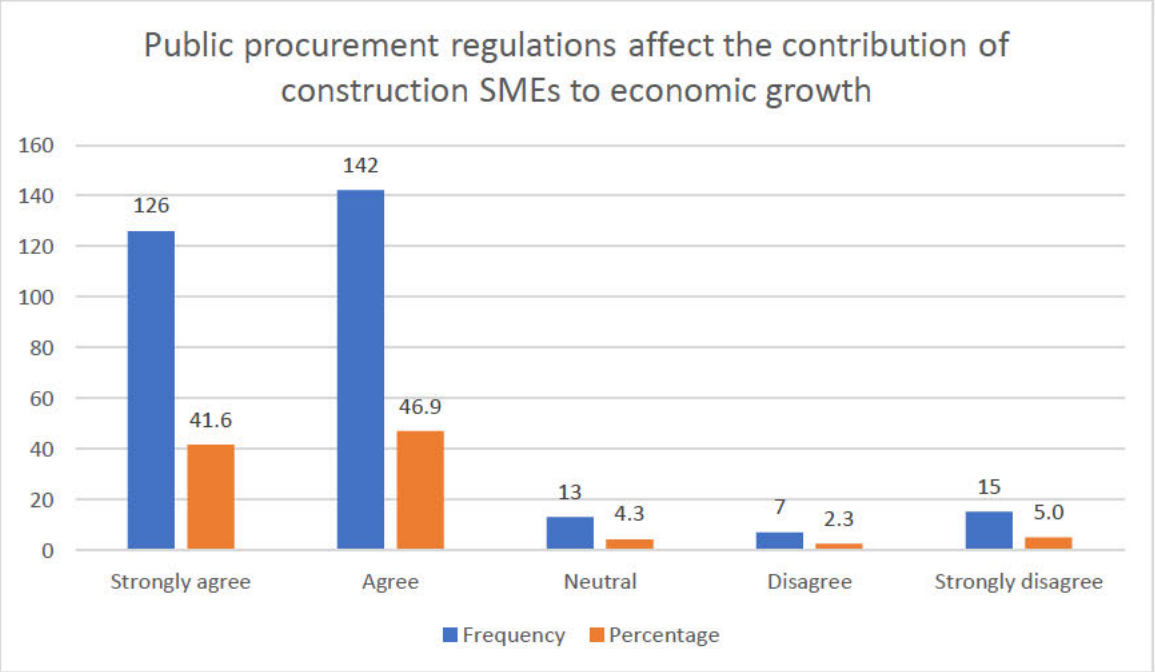

Figure 5.95: Public procurement regulations affect construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it is public procurement regulations influence the contribution of construction SMEs to economic growth. The findings (Figure 5.93) above show an overwhelming majority (88.5 percent) respondents agreed public procurement regulations affect construction SMEs' contribution to economic growth, with 46.9 percent that agreed and 41.6 percent that strongly agreed, while five percent of the respondents strongly disagreed, 4.3 percent remained neutral and only 2.3 percent disagreed with this statement. The results are supported by the Chi-square test results (X^2 = 299.030; df = 4; P = 0.000) for this variable, which show construction SMEs' contribution to economic growth is affected by public procurement regulations. This implies the result for this variable was statically significant and not due to chance (Appendix 8). These findings are supported by Suliantoro *et al.* (2019: 13), who found public procurement government regulations are an obstacle to the growth of SME businesses.

5.2.6.14.6 Too many South African SME regulations affect the construction SMEs' contribution to economic growth

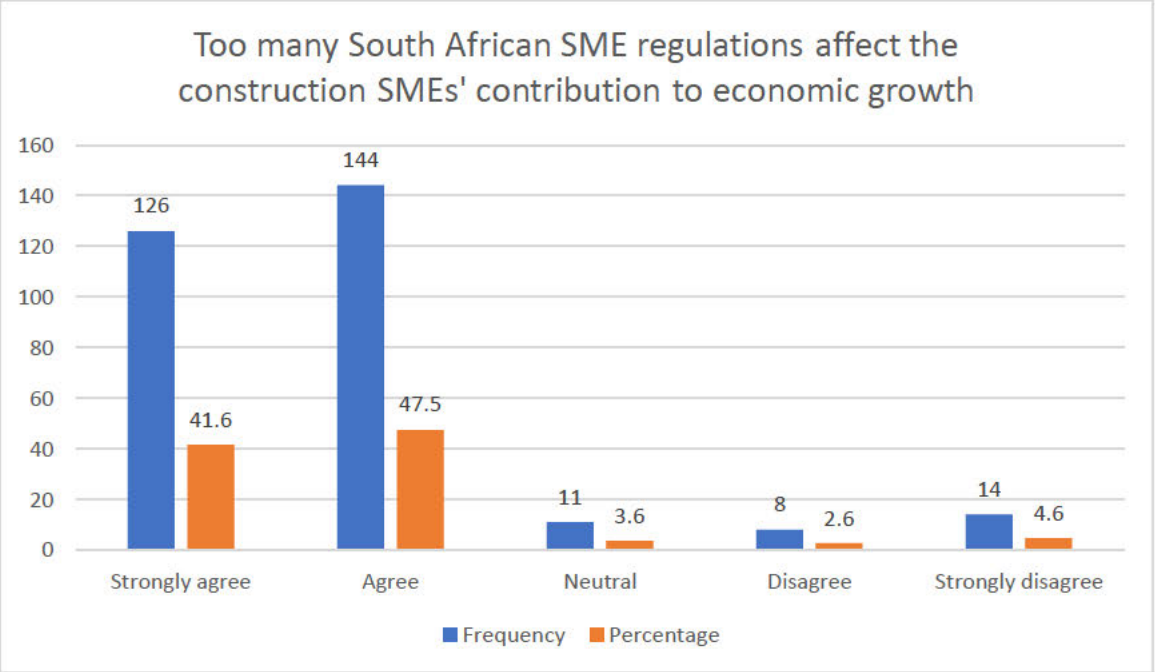

Figure 5.96: Too many South African SME regulations affect the construction SMEs' contribution to economic growth

The survey respondents were asked to state how likely it is too many South African SME regulations influence the contribution of construction SMEs to economic growth. As depicted (Figure 5.94) above, an overwhelming majority (89.1 percent) respondents agreed too many South African SME regulations affect construction SMEs' contribution to economic growth, with 47.5 percent that agreed and 41.6 percent that strongly agreed, while 4.6 percent of the respondents strongly disagreed, 3.6 percent remained neutral and only 2.6 percent disagreed with this statement. A Chi-square test was conducted and the results (X^2 = 307.446; df = 4; P = 0.000) for this variable show the construction SMEs' contribution to economic growth is influenced by too many South African SME regulations. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These results are supported by the literature, as Kent (2013: 1) discovered there are too many regulations in SA, including those in line with the OHSA, which are destroying construction SMEs.

5.2.6.14.7 Non-compliance with government regulations cause construction SMEs to fail, which affects their contribution to economic growth

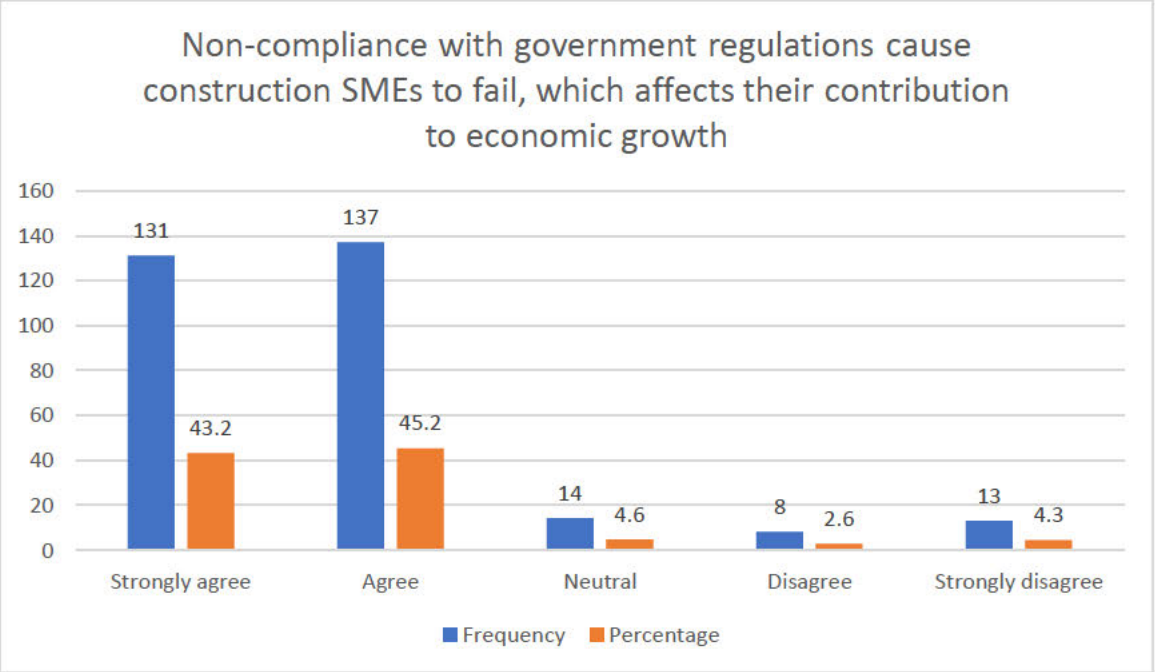

Figure 5.97: Non-compliance with government regulations cause construction SMEs to fail, which affects contribution to economic growth

The survey respondents were asked their perception on whether non-compliance with government regulations causes construction SMEs to fail, which affects their contribution to economic growth. The findings (Figure 5.95) above show an overwhelming majority (88.4 percent) respondents agreed non-compliance with government regulations cause construction SMEs to fail, which affects their contribution to economic growth, with 45.2 percent that agreed and 43.2 percent that strongly agreed, while 4.6 percent of the respondents remained neutral, 4.3 percent strongly disagreed and only 2.6 percent disagreed with this statement. A Chi-square test was conducted to confirm these findings. The results (X^2 = 296.983; df = 4; P = 0.000) for this variable confirm the failure of construction SMEs is due to non-compliance with government regulations, affecting the contribution of these businesses. This implies the result for this variable was statically significant and not due to chance (Appendix 8).

These findings are supported by Esterhuyzen (2019: 36), whose study discovered failure of small businesses to comply with regulations such as OHSA can lead to them paying penalties and fines that will result in the failure of these firms.

Table 5.17: Component matrix: The influence of regulatory factors on the contribution of construction SMEs to economic growth

Component Matrix[a]

	Component 1
Lack of government policy support affects the contribution of construction SMEs to economic growth.	.912
Business registration costs affect the contribution of construction SMEs to economic growth.	.893
Business licencing costs affect the contribution of construction SMEs from obtaining government SME projects	.898
High SARS monthly tariffs affect the contribution of construction SMEs to economic growth	.909
Lack of clarity of tax policies affect the contribution of construction SMEs to economic growth.	.883
Public procurement regulations affect the of construction SMEs' contribution to economic growth.	.912
Too many South African SME regulations affect the construction SMEs' contribution to economic growth.	.910
Non-compliance with government regulations cause construction SMEs to fail, which affects contribution to economic growth.	.891

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The components indicated (Table 5.16) are a supplementary statistical analysis of the above-mentioned figures (Figure 5.88 to 5.95). A component test was done on the influence of regulatory factors on the contribution of construction SMEs to economic growth. The respondents indicated to only one category of component, showing a strong positive significance of 0.912 on the statements as to whether lack of government policy support affects the contribution of construction SMEs to economic growth and public procurement regulations affect construction SMEs' contribution to economic growth. Similarly, a figure of 0.910 is revealed for respondents who indicated on the statement that too many South African SME regulations affect the construction SMEs' contribution to economic growth. A strong positive significance value of 0.909 is achieved for respondents who

indicated high SARS monthly tariffs affect the contribution of construction SMEs to economic growth, while a positive significance value of 0.898 is achieved for respondents who indicated business licencing costs affect the contribution of construction SMEs in not obtaining government SME projects. On the variable pertaining to business registration costs, the component test indicates a positive significance of 0.893, indicating respondents believed construction SMEs' contribution to economic growth would be enhanced if government relaxes business registration costs affecting construction SMEs.

Lastly, other variables on whether non-compliance with government regulations cause construction SMEs to fail, which affects their contribution to economic growth and lack of clarity on tax policies affects the contribution of construction SMEs to economic growth, showed 0.891 and 0.883, respectively. It can be seen the component achieved from each matric is very close to 1, which shows the underlying constructs loaded perfectly and reliably measured the underlying constructs. In addition, the component measured in the above-mentioned table supports the validity and reliability of the research instrument.

5.3 SUMMARY OF QUANTITATIVE RESULTS

The quantitative tool was used in this study to understand the core factors influencing the contribution of construction sector SMEs to economic growth in the Eastern Cape. The following section presents the summary of the findings:

- Regarding the influence of education and training on performance of construction SMEs, respondents agreed education and training are very important and play a key role in the performance of construction SMEs. The vast majority of respondents felt three statements in this section were very important.
- Where the influence of government support on the construction SMEs contribution to economic growth is concerned, there was significant agreement amongst the respondents that government support is an important factor that influences the contribution of construction SMEs to economic growth.
- There was significant agreement among respondents that business managerial skills influence the performance of construction SMEs.

- There was also significant agreement among respondents that entrepreneurial leadership affects the performance of construction SMEs. The vast majority respondents believed all seven statements in this section were very important.
- Regarding the influence of shortage of skills, the vast majority respondents agreed shortage of skills affects the contribution of construction SMEs to economic growth. There was strong agreement between respondents that construction SMEs struggle to recruit candidates with key expertise and fail to provide training and development for their employees.
- Significant agreement was indicated by respondents that financial barriers affect construction SMEs' contribution to economic growth. The vast majority respondents felt all four statements in this section were very important.
- Respondent agreement was significant regarding technology infrastructure influencing the contribution of construction SMEs to economic growth.
- There was significant agreement among respondents that organisational support influences the performance of construction SMEs. Lack of equipment, high prices of required materials, lack of support from shareholders and/or board of directors, and lack of adoption of subcontractor strategy were among the highly rated factors by respondents to have a major influence on organisational support.
- There was agreement among respondents that access to the market do influence the contribution of construction SMEs to economic growth. The respondents believed that all nine statements in this section were very important.
- Significant agreement was indicated by respondents that delays in payment influence the contribution of construction SMEs to economic growth. The respondents felt some statements were more important than others, with delays in payment by the community and/or private individuals being the least important.
- Agreement was indicated by respondents that networking resources influence the contribution of construction SMEs to economic growth.
- There was significant agreement among respondents that social barriers influence the performance of construction SMEs. The respondents felt all seven statements in this section were very important, although some were more important than others. Lack of support from business consultancy

services and cultural differences make the community source construction SMEs from other provinces were deemed less important than the other statements.

- Significant agreement was indicated by respondents that government institutions influence the contribution of construction SMEs to economic growth. The respondents felt all three statements in this section were very important.
- There was significant agreement among respondents that regulatory factors influence the contribution of construction SMEs to economic growth. The respondents believe all eight statements in this section were very important. The vast majority respondents agreed too many South African SME regulations influence the contribution of construction SMEs to economic growth, and non-compliance with government regulations causes these construction SMEs to fail. The next section will present the qualitative findings.

5.4 QUALITATIVE FINDINGS

The data on which the qualitative findings of the study are based were gathered by means of interviews from construction SME owners and managers. The interviews enabled the researcher to gain insight through exploring participant perceptions and views on factors influencing the contribution of construction SMEs to economic growth. The interview participants were 12 in total, comprised of 11 construction owners, and one construction SME manager. All interviews were facilitated by the researcher. As advised by Creswell and Piano Clark (2011: 414), an interview schedule (Appendix 6) was used as a guide throughout the process of interviewing the participants.

5.4.1 Emerging themes from semi-structured interviews

The researcher formulated the following themes in line with research questions, as a point of departure for qualitative discussion:

- Critical aspects found to characterise construction SMEs in the Eastern Cape.
- Assessment on whether government economic developmental growth policy in the Eastern Cape supports construction SMEs.
- Factors that influence business performance.

- Suggestions by construction SMEs on how government, policy makers and private sector can improve the construction SMEs situation; and
- Suggestions by construction SMEs on aspects for the integrated model to enhance support of construction SMEs.

Qualitative data from the semi-structured interviews were recorded and transcribed. The transcribed data and all notes made during interviews were later analysed. For the purpose of anonymity, names of participants are not published in the study. However, Table 5.17 indicates how participants were referred to in the study.

Table 5.18: Description of key participants

P1	**Construction SME Managers**
P2	
P7	
P3	**Construction SME Owners**
P4	
P5	
P6	
P8	
P9	
P10	
P11	
P12	

The following section outlines the presentation and discussion of the qualitative findings.

5.4.1.1 Theme 1: Critical aspects found to be characterising construction SMEs in the Eastern Cape

As reported by Nyakala *et al.* (2022: 376), the performance of construction SMEs in developing countries is constrained by the challenges facing the construction industry. With this in mind, construction SMEs are required to become aware of key characteristics that are enablers of business performance and ensure such characteristics are cultivated and nurtured in the correct manner. It is, therefore, important to know, from the views of construction SME owners and managers, the key characteristics that enable business performance.

(a) Subtheme 1: Skilled employees

According to Silva *et al.* (2018: 76), the South African construction industry has been challenged with low skills levels. As highlighted in several studies, as an enablement of business sustainability for construction SMEs, productivity performance is linked to the skills and experience of employees (Akomah *et al.* 2020: 84; Silva *et al*. 2018: 76; Rasool and Botha 2011: 1; Mcguinness 2009: 23). Notably, most interviewees expressed strong views on how their businesses rely on experience and skills of their employees to achieve business performance. This is reflected in a statement made by a construction SME owner:

> "Our business performance, in terms of project execution is measured by time, cost and quality. For us to achieve this, proper quality concerning to skills, experience and knowledge of employees is very important. This is one of the characterises of our business". (P3)

Echoing similar sentiments, another construction SME owner claimed when you have skilled employees, business operations are streamlined:

> "When you have skilled and experienced employees, operations run smoother and faster. Hence, we pride ourselves in taking our employees through formal training". (P1)

In support of skills as a performance enabler, a construction SME manager added skills are a cutting edge to the sustainability of the business.

> "…having skilled and experience people to perform work for your business is good because you know that your business is in good hands". (P2)

Both construction owners and managers agree that skills of employees are what enables construction SMEs to achieve business performance. This is consistent with Demirkan, Srinivasan and Nand (2022: 422), who observe high skilled and well-trained staff are critical for business performance through innovation. In support of the above, a construction SME owner pointed out that skilled labour enables their business to complete projects quicker and faster.

> "Though training comes at a cost but in the long run it pays back. Skilled labour helps us to be competitive as we are able to finish our projects in time where we avoid standing time due to lack of skills. Hence, employee training is what we plan for in our yearly budget" (P7)

Skilled labour is a catalyst for construction SMEs to achieve business performance. In appreciating the importance of skilled labour, a study by Debelo and Weldegebriel (2022: 31) in Ethiopia discovered that one of the main reasons that contractors utilised subcontractors, was to gain skilled labour. To gain skilled employees, Demirkan *et al.* (2022: 423) suggest SMEs need to be deliberate in investing in staff training.

(b) Subtheme 2: Cashflow management

Most participants reported cashflow management as one of the characteristics that enables their businesses to achieve performance. Cash flow management ensures the availability of cash to run the business.

Both construction SME owners and managers define cash flow as what enables projects to be executed on time, as it allows procurement of materials and payment of plants and tools required to carry the project scope. For example, a construction SME owner indicated the following:

> "Cash flow of the company is important in a company. Prior starting a project capital is required as without cash you cannot proceed with the project execution. Especially, for black companies, suppliers do not give credit to us". (P3)

Furthermore, a construction SME manager supports that cash flow is the lifeline of every business and enables businesses to achieve competitive edge and success. This is reflected in the following statement:

> "Capital is good for the start of each project. As a company, through capital that we generate, we are able to buy material on time and get required services to ensure that the project is not delayed. By so doing we are able to generate more cash that we can claim at the end of the month. That is more cash generated for the company". (P1)

The above is consistent with the literature by Ramli and Yekini (2022: 2), Alu Chituru, Shiyanbola and Gbolahan (2023: 3) and Mutti and Hughes (2002: 26), who noted since cash is the backbone of every company, cash flow management is critical for business sustainability. Hence, Alu Chituru *et al.* (2023: 3) state good cash flow management is the recipe for success for every business. In support of the study findings, Ramli and Yekini (2022: 4) state researchers have acknowledged the importance of cash flow management, which enables firms to maintain adequate liquidity in terms of cash on hand and business assets that can be transformed into cash. Cash flow management is, therefore, important for the performance of construction SMEs. It is noteworthy that these findings are in line with the quantitative findings of this study, which discovered delays in payment lead to construction SMEs experiencing cash flow constraints that, in turn, affect their performance.

(c) Subtheme 3: Proper equipment

As emphasised by Msomi and Olarewaju (2021a: 122) and Kamal and Flanagan (2012: 195), equipment is one the key aspects that enables construction SMEs to achieve competitive advantage. This suggests it is imperative for construction businesses to acquire appropriate equipment. This view is depicted in a statement by another construction SME owner that:

> "Good equipment helps to run projects efficiently. Over the past 25 years since I started construction business, I have been ensuring that we utilise equipment. That is why we have been completed our project on time and able to generate profits". (P2)

On the contrary, one of the construction SME owners indicated there is no need to have equipment in the business, as these come with high maintenance costs. According to this business owner, hiring of equipment, rather than buying, is the best solution:

> "In my company we do not buy equipment we hire as and when we require for the project. There are costs associated with buying the equipment like maintenance, hiring of operators. When you hire you can minimise the running costs especially when there are no projects to execute. SMEs like my size do not need to buy big equipment". (P8)

However, lack of equipment, according to Selai (2019: 6) and Sityata (2019: 98), has been identified as one of the factors that affect the performance of construction SMEs. Moreover, the findings from the quantitative study also indicated lack of equipment influences the performance of construction SMEs.

(d) Subtheme 1.4: Compliant with BEE

According to Reddy (2016: 467), BEE was introduced by the South African government to improve the difficulties faced by previously disadvantaged black people. These measurements were also meant to improve the operating conditions of SMEs owned by black individuals. The majority of construction SMEs agree that much has been achieved through BBBEE implementation. This is reflected in a statement made by two business owners, who indicated that:

> "…this is one of the factors that is important, the more you have good BBBEE rating the higher the chances of having competition". (P8)

> "My business has benefitted through BEE complaint. I have been awarded project due to my BEE status. In fact, other tenders from government require only business that are complaint with BBBEE'. (P10)

Surprisingly, a study by Musabayana and Mutambara (2022: 80) discovered the B-BBEE policy has failed to uplift black-owned SMEs, as these firms continue to underperform and battle in their day-to-day operations. The authors believe SA has the potential to reap the fruits of the policy through proper implementation. This is supported by Anwana (2020: 3), who finds scholars have proven the

BBBEE policy has failed to achieve its primary objectives, in terms of improving the plight of black people.

A smaller fraction of the construction SME owners does not believe the BBBEE policy is supposed to be assisting SMEs. According to one construction SME owner, BBBEE is only “a vehicle for corruption and fraud for government officials”. This is reflected in a statement made by a construction SME owner that:

> “BBBEE policy is not required currently. It has proven to be a tool for those in power to enrich themselves through fraud and corruption. In fact, it has no place in the construction industry as it is killing this sector”. (P11)

From the above, it can be surmised construction SMEs believe there are benefits associated with compliance to BBE. As such, they believe it is one of the characteristics that lead to business performance. The literature indicates there is more that still needs to be done for the BBBEE policy to achieve the initial objectives.

5.4.1.2 Theme 2: Assessment whether government economic developmental growth policy in the Eastern Cape supports construction SMEs

In terms of the government economic developmental growth policy in the Eastern Cape, the interviewees were asked the following question: “have you found the government economic developmental growth policy in the Eastern Cape in support to your business?” The interviewees reflected different feelings. However, the majority interviewees agreed the policy has not supported their businesses, while other interviewees agreed the policy is not doing enough.

This is reflected in a statement made by a construction SME owner that:

> “No, I did try to get support from government, but I never got it. I believe that for you to get support you need to know someone working inside government”. (P11)

Echoing similar sentiments, and in a provincial context, a business owner claimed the policy does not boost local businesses.

> “The way the implementation of the policy is done it does not assist small businesses. For example, when bigger companies get awarded tenders,

> they need to subcontract 30% of the scope but the way this is managed result on small to be exploited by bigger companies where the need to submit lower rates which are not sustainable for the business". (P2)

His colleague further expressed that:

> "Yes, it is there on paper, and it is very good. But it is not implemented". (P3)

In acknowledging the strides government has made in supporting construction SMEs through the policy, a construction SME owner indicated the following:

> "The policy has helped us 50 percent. There are still many red tapes on getting support such as funding and training". (P7)

In elaborating on the gaps in the policy, another construction SME owner indicated the following:

> "The policy has not supported us as SMEs to my expectation. Government does not give support even if its discounts monthly payments like water and electricity for small companies. The policy does not boost local businesses in the Eastern Cape province instead it supports outside business to come and execute projects leading on local businesses to close down". (P12)

According to Kavese (2021: 5), the economic developmental growth policy objective is to create employment through the development of local SMEs. Thus, absorbing excess labour in the market. However, the findings from the interviewees show this is not the case. Most participants believed the government economic developmental growth policy in the Eastern Cape is not supporting construction SMEs.

This is in line with Oduntan (2014: 14), who indicated one of the challenges facing SMEs is poor policy implementation by government. This supports findings by the Economic Development Department (2007: 7) that key constraints affecting the SMEs in the Eastern Cape include lack of policy and coordination from local government. The researcher observed the findings from the qualitative study on lack of policy implementation are in line with the findings of the quantitative study, which discovered the lack of government policy support for construction SMEs

affects their contribution to economic growth. These findings are supported by the empirical evidence from the quantitative phase, showing lack of support for construction SMEs affect their contribution to economic growth. Therefore, the researcher concludes that the contribution of construction SMEs is not in line with government economic growth policy in the Eastern Cape province.

5.4.1.3 Theme 3: Factors that influence businesses performance

Regarding the factors that influence business performance, the interviewees indicated the following:

- Lack of skills in the Eastern Cape: there is a shortage of skills in our industry, and it is due to insufficient projects.
- Lack of government funding: capital is critical for the running of day-to-day operations of the business to ensure projects are executed successfully.
- Delays in payment: according to construction SME owners, when they are not paid on time, their performance is influenced.
- Strikes by employees: these lead to employers to lose production due to total shutdown.
- Political and economic issues: according to construction SME owners/manager, the effects of load shedding lead to receiving materials late, as suppliers blame these delays on load shedding.
- Corruption: tenders get given to businesses who are linked politically, where payment of bribes and favouritism takes place.
- Government regulations: the regulations affect our profits and there are many requirements linked to compliance, which come with costs.
- Globalisation: outside companies come in the Eastern Cape province and take local construction SMEs out of business.

In outlining participant views on some factors identified, in terms of delay in payment, one of the construction SME managers indicated the following:

> “Late payments by our private clients are affecting our performance such that we cannot procure material and pay employees. This lead on project stoppages which result on us taking longer to complete the project within cost. This takes away profits for the business”. (P1)

In support, a construction SME owner pointed out the following:

> "…one month is too long for any SME business to stay without being paid." (P3)

In elaborating the influence of regulation on the performance of construction SMEs, a construction SME owner stated that:

> "There are many red tapes associated with tendering, there are many requirements like letter of good standing, business certificates. When I started doing business it was easy. I have been in business for 25 years but now it is not easy". (P2)

While another construction SME owner reflected the following:

> "There are a lot of documents required when putting a tender. Some tenders require performance bonds and guarantees which we do not have as SMEs". (P10)

In terms of globalisation, construction SMEs believed most projects are taken away by businesses who come from overseas, which led them to not have enough projects for local businesses. This is reflected in a statement by a construction SME owner:

> "Businesses outside South Africa who uses cheap labour come and take projects at half price which is not sustainable for us as local companies. For an example, Zimbabwean companies come to the Eastern Cape province use cheap labour and beat us in price as most of private clients look at the price when tendering". (P10)

5.4.1.4 Theme 4: Suggestions by construction SMEs on how government, policy makers and private sector can improve the construction SMEs situation

Regarding the need for government, policy makers and the private sector to take steps to improve the situation of construction SMEs, the interviewees were asked to provide suggestions. All the interviewees voiced their belief there is much that could be done, particularly by government, to improve the situation of the construction SMEs in the Eastern Cape, which include the following:

- Government officials and policy makers who develop policies for SMEs must have relevant experience and involve all stakeholders, especially us as SMEs when developing policies.
- Government and private banks must have funding to support construction SMEs when executing projects.
- Government must have a database of local companies and try to split the work among local companies.
- Government must ensure construction SMEs are paid on time. There must be a system that will monitor all submitted invoices as part of a dashboard by government seniors.
- Government must bring back technical schools to bridge the skills gaps in the industry.
- Government must remove red tape on tendering and reduce compliance costs,
- There must be a budget for construction SME projects, and it must include mandatory 30 percent subcontracting of SMEs for projects executed by large companies;
- Government must develop construction SMEs through formal training and incubation processes; and
- Government must hire companies with knowledge of the work.

Below are the reflections of construction SMEs regarding the above suggestions.

Regarding the availability of funding by government and the private sector, a construction SME owner stated the following:

> “Funding is critical for our industry for capital and train our staff. It is requirement for us to train employees every year”. (P8)

Echoing similar sentiments, and from the private bank context, a business owner stated banks need to be forced by government to make funding available through policy. that the policy does not boost local businesses.

> “I have made more than 3 loan application to the banks, and I never received any feedback. Instead, there is a lot of paperwork that you are required to submit which include business plan”. (P7)

Regarding the issue of red tape and compliance requirements that construction SMEs claimed to be putting extra strain on them, the following views were tabled:

> "Government must lessen the regulations for construction SMEs and remove all red tapes linked with tendering. Secondly, tax is very high for us to take out and pay government". (P3)

In terms of policy development, construction SMEs agreed there is need of a policy review for all policies in the sector that affect SMEs. These polices need to be streamlined to support and not be a stumbling block to the performance of construction SMEs. This is reflected in a statement by a construction SME owner that:

> "Government must relook at all polices affecting us as small businesses. Only polices that have been agreed by all stakeholders must be implemented". (P8)

His colleague further expressed that:

> "…current policies do not support us a construction SMEs. They favour large business who can afford to pay these fees and get away with everything". (P6)

5.4.1.5 Theme 5: Suggestions by construction SMEs on aspects for the integrated model to enhance the support of the construction SMEs

In terms of intensifying the support of construction SMEs, constructions SMEs were asked whether there is a need for an integrated model to support their businesses. There was agreement among all the construction SMEs for the need to develop the integrated model. They were further probed to indicate which aspects the integrated model should address, with following aspects indicated:

- Skills and training of construction SMEs.
- Funding of construction SMEs.
- Government support of construction SMEs.
- Tendering procedures for construction SME projects.
- Re-evaluation of policies affecting construction SMEs.
- Technological matters affecting construction SMEs.
- Business incubation of construction SMEs.

In emphasising the need for the integrated model development, which will enable the support of construction SMEs, the following sentiments were shared by construction owners and managers. In their words:

> "Yes, there really is a need for the model that will support us. We are currently suffering, and we are in the edge of closing". (P2)

A construction SME owner echoed these sentiments that SMEs have been neglect as a result many small businesses have failed.

> "Definitely, the model is required. Small businesses are volatile as result we are seeing them failing daily due lack of government support. Times have changed we need innovative ways to uplift SMEs". (P3)

A construction SME manager stressed the need for the integrated model by stating the following:

> "Yes, there is a need for the integrated model to assist companies to grow. It must assist with the incubation through enforcement of subcontracting". (P7)

In summary, the interviews with key informants provided the researcher with challenges influencing the contribution of construction SMEs to economic growth. By emphasising the underlying factors that affect construction SME performance, their perceptions regarding the challenges they face as small businesses, one can start to develop appropriate strategies to improve the current situation. Furthermore, the interviews revealed key information, useful for the researcher to develop the integrated model and provide study recommendations.

5.5 CHAPTER SUMMARY

This chapter provided an outline of the quantitative and qualitative data collection and analysis results of the construction SME survey questionnaires and semi-structured interviews that followed. The chapter revealed critical factors that influence the contribution of construction SMEs to economic growth in the Eastern Cape. The next chapter presents a detailed results discussion of the quantitative and qualitative study phases.

CHAPTER SIX: DISCUSSION OF RESULTS AND FINDINGS

6.1 INTRODUCTION

The previous chapter presented findings resulting from the survey questionnaire for the quantitative study phase and from the interviews for the qualitative phase. The aim of this chapter is to discuss the findings of the study in comparison with the literature reviewed for this study. The next section presents a discussion of the study findings relative to the study objectives.

6.2 DISCUSSION OF THE FINDINGS

Literature reviewed in this study presented comments on various aspects of the phenomena influencing the contribution of construction SMEs to economic growth, locally and globally. This section discusses the implications of the findings in line with literature reviewed and the research objectives of the study. The following are the study objectives:

Objective 1: To establish the factors influencing the construction SMEs' contribution to economic growth in the Eastern Cape province;
Objective 2: To examine the extent to which construction SMEs' contribution is aligned with government's economic growth policy in the Eastern Cape province;
Objective 3: To determine characteristics of construction SMEs affecting their contribution to economic growth in the Eastern Cape province;
Objective 4: To explore how government regulations and laws influence the construction SMEs' contribution to economic growth in the Eastern Cape province;
Objective 5: To suggest a prototype model for construction sector SMEs' contribution to the Eastern Cape economic growth.

This section presents an overview of the key empirical findings of the study and draws a comparison between these, and the literature reviewed. The primary base for discussions is the research objectives and relevant questions/statements within the survey and interviews conducted for this research.

The following discussion emanates from key findings of the research, in respect to the defined objectives:

6.2.1 Key findings - Objective 1

The factors influencing construction SMEs' contribution to economic growth in the Eastern Cape province

The discussion that follows compares the literature review and empirical findings of this study on external and internal factors that influence the contribution of construction SMEs to economic growth in the Eastern Cape. External factors are discussed first, followed by the internal factors.

6.2.1.1 External factors

Lack of government support

Government support is seen, both within the literature and from the empirical data, to be an engine and enabler for success of small firms in developed and developing countries. Hence, Chien *et al.* (2021: 4) argue government support is perceived as the hope for a struggling SME sector globally after COVID-19. However, literature shows that lack of government support in SA has been an ongoing challenge for the struggling construction SME sector (Fatoki and Garwe 2010: 15; Fatoki 2018: 3; Sityata 2019: 98; Nyakala 2022: 8). The findings from the quantitative study indicate lack of government support to prioritise construction SMEs on tenders, influences the contribution by construction SMEs to economic growth. This is confirmed by an overwhelming majority (87.5 percent) respondents that agreed with the statement, which confirms the assertion by Nyakala (2022: 8), as well as Fatoki (2018: 3), that lack of government support limits the contribution of construction SMEs to economic growth. Likewise, Zuofa *et al.* (2023: 12) point out that limited government support is one of the barriers for construction SMEs to not implement a circular economy.

Furthermore, the findings from the empirical study quantitative survey indicate lack of government financial assistance for construction SMEs influences construction SMEs' contribution to economic growth. The findings are confirmed by a vast majority (73.6 percent) of the respondents who agreed with the statement. These findings are in line with Asah *et al.* (2020: 2), SEDA (2016: 7) and Wentzel *et al.* (2016: 1478), who are of the view that lack of access to government finance is a constraint to construction SMEs' success in SA.

Nyakala (2022: 2) avers that lack of technical skills remains a constraint faced by construction SMEs. The quantitative study findings show that lack of technical skills, workshops or training provided by government institutions, affects construction SMEs' contribution to economic growth. The findings are confirmed by a vast majority (74.2 percent) respondents that agreed with the statement. These findings are in line with Dapaah *et al.* (2017: 8), who claim although construction SME empowerment programmes developed by government are in place, the implementation of these programmes was not correctly rolled out.

High prices of required materials

Materials are a critical part in project execution by construction SMEs. Hence, Eze and Ugulu (2021: 164) argue materials management is of critical importance throughout the value chain of construction project execution. However, authors agree high prices of materials are a major problem faced by construction businesses, since it has a direct influence on profit margins (Tayeh *et al.* 2019: 56, Adeyemi and Aigbavboa 2018: 1570; Taiwo and Falohun 2016: 43). The findings from the quantitative study agree with the literature review that high prices of required materials by suppliers affect the profit margins of construction SMEs. These findings are confirmed by an overwhelming majority (91.1 percent) respondents that agreed with this statement.

Additionally, the quantitative study findings indicated the lack of timeous material supply on site to construction SMEs affects the performance of construction SME projects, which influences their contribution to economic growth. These findings are confirmed by an overwhelming majority (91.1percent) of the respondents who agreed with this statement. These findings are in line with Owoo *et al.* (2018: 12), in their assertion that one of the key challenges that affect construction sector performance is a lack of access to onsite construction materials.

Financial barriers

Current literature identifies and emphasises access to finance as one of the critical components for the business of construction SMEs (Msomi and Olarewaju 2021b: 282; Asah and Louw 2021: 2; Hung *et al*. 2021: 243). In the same vein, current literature indicates access to finance is a limiting factor to the growth of SMEs (Msomi and Olarewaju 2021a: 106; Asah and Louw 2021: 2). Hence, the South

African government has put measures in place to increase financial support aimed at improving and supporting SMEs (Ogujiuba *et al*. 2022: 2; NCR 2011: 27). However, evidence shows these initiatives have not been successful (NCR 2011: 32). Consequently, lack of finance remains a major constraint for SMEs in SA (Asah and Louw 2021: 2; Wentzel *et al*. 2016: 1478; Kamau and Nguni 2014: 51). The literature is in line with the findings that emerged from the qualitative phase of the study that lack of government funding affects the performance of construction SMEs. As a result, construction SMEs lack capital.

The above quantitative evidence is supported by the quantitative study findings that lack of access to loans from financial institutions affects the construction SMEs' contribution to economic growth. This is confirmed by an overwhelming majority (89.1 percent) of the respondents who agreed with this statement. These findings from the quantitative study, furthermore, align with Oyelana and Fiseha (2014: 676), who determined that the majority construction SMEs are unable to increase their contribution to socio-economic development due to their lack of access to finance.

In addition to the above-mentioned findings, the quantitative study findings also show the inability to obtain credit facilities from suppliers due to lack of finance, affects construction SMEs' contribution to economic growth. The findings are affirmed by an overwhelming majority (88.1 percent) of the respondents who agreed with the statement. The findings from the quantitative study are aligned with Ansary and Agumba (2018: 521) and Eyiah *et al.* (2018: 28), who claim lack of finance by construction SMEs is one of the factors that hinders these businesses from obtaining credit from suppliers.

The quantitative study findings further indicate collateral security requirements to access finance from lending institutions affect the construction SMEs' contribution to economic growth. The findings are confirmed by an overwhelming majority (87 percent) of the respondents who agreed with the statement. These findings support Asah *et al.* (2020: 7) in their assertion that lack of appetite by private financial institutions to provide loans to SMEs is due to these firms not being able to provide collateral security.

Respondents additionally agreed high interest rates charged on loans by financing agencies affect construction SMEs' contribution to economic growth. The findings are confirmed by an overwhelming majority (88.1 percent) of the respondents who agreed with the statement. This corresponds to the literature that high interest rates escalate the costs of doing business by SMEs, which reduce their profit margins and nullify the merits of obtaining external funding; consequently, it affects their contribution to economic growth (Asah *et al.* 2020: 3; Mutezo 2013: 153; Ansary and Agumba 2018: 521).

Access to market

The findings from the quantitative study indicate the lack of construction SME projects in the Eastern Cape affects the construction SMEs' contribution to economic growth. The findings are confirmed by an overwhelming majority (87.1 percent) of the respondents who agreed with this statement. These findings are aligned to Mulaudzi and Lancaster (2021: 1), who state many projects in SA have been stopped/suspended or terminated due to criminal activities, resulting in the country having fewer projects available in the market. The results from the qualitative study revealed issues of globalisation resulted in construction SMEs not t having projects. The participants indicated outside companies often come to the Eastern Cape province and take local construction SMEs out of business. This leads to construction SMEs to not have sufficient projects. This supported by Oyewobi *et al*. (2022: 17) and Ofori (2010: 3), who state while globalisation brings foreign investment, it takes away projects from local construction businesses that deprives these firms from growing.

Delays in payments

Cashflow is the oxygen for every business, particularly SMEs. According to Mutti and Hughes (2002: 26), cashflow constraints and a shortage of working capital can, in extreme situations, "push efficient and profitable firms into insolvency". This is supported by Gqoboka *et al.* (2022: 1397) and Salau and Nurudeen (2022: 194), who argue delays in payment make it difficult for SMEs to run their business operations, since they are unable to, for example, remunerate staff, pay VAT, and property or equipment rental. The Public Service Commission report shows as of 01 June 2022 to the end of September 2022, unpaid SME invoices by government departments increased from 959 to 2 454 (Chabalala 2022: 1).

The above literature review is supported by the quantitative study findings which indicate delays in payment by government departments affect construction SMEs' contribution to economic growth. The findings are confirmed by an overwhelming majority (89.7 percent) of the respondents who agreed with the statement. These findings further align with Hosken (2019: 1) and Thwala and Mvubu (2009: 355), who discovered delays in payment of work done for government bodies is an extreme constraint facing construction SMEs, leading to some of these businesses having to file for bankruptcy.

The quantitative study findings, furthermore, reveal delays in payment by the private sector affect construction SMEs' contribution to economic growth. The findings are affirmed by an overwhelming majority (89.4 percent) of the respondents who agreed with this statement. These findings are in line with the research outcomes of Bikitsha and Amoah (2022: 2033), which discovered that delay in payments by private clients is a key challenge facing South African construction SMEs.

The findings from the quantitative study further indicate that delays in payment by the community and/or private individuals affect construction SMEs' contribution to economic growth. This is confirmed by an overwhelming majority (82.8 percent) of the respondents who agreed with the statement. The impact of delays in payment by community and/or private individuals to construction SMEs has not been investigated before.

The findings from the quantitative phase are supported by the findings of the qualitative phase that late payments by private clients and government are affecting the performance of construction SMEs, since these firms cannot procure materials and pay employees. This has led to project stoppages, resulting in construction SMEs taking longer to complete the project within budget, which leads to loss of profits for the business. These findings are supported by Salau and Nurudeen (2022: 194), who state late payments are a major challenge for construction SMEs and result in these firms not meeting their financial obligations.

Networking resources

Business networks are crucial in formulating relationships between businesses that will enable companies to form solid ties (Ratnawati and Darmanto 2021: 456).

Cisi and Sansalvadore (2019: 2) assert collaborations within the SME sector through business networking play a pivotal role in strengthening support among these firms. The findings from the quantitative study indicate lack of business networks with formal professionals to source new business ideas influences construction SMEs' contribution to economic growth. The findings are supported by an overwhelming majority (89.4 percent) of the respondents who agreed with the statement. These findings support the claim by Michna *et al*. (2020: 221) that a challenge remains for construction SMEs to maximise the benefits of using business networks due to a lack of trust.

Competition in construction sector

Over the years, competition in the construction sector has grown considerably. Hence, Bikitsha and Amoah (2022: 2035) are of the view the CIDB is not doing enough to manage competition within construction SMEs, which affects their performance. Consequently, the findings from the quantitative study indicate competition in the construction sector affects the performance of construction SMEs. The findings are affirmed by an overwhelming majority (83 percent) of the respondents who agreed with the statement. The findings are consistent with the DTI (2005: 11) view that competition affects the performance of SMEs, which influences their contribution to the economy.

6.2.1.2 Internal factors

Education and training

The literature identifies education and training as a cornerstone for the success of any business. According to Dawe and Nuyen (2007: 22) and Anderson (2017: 5), education and training boost entrepreneur confidence, particularly during the start-up phase. Isaacs *et al*. (2007: 616) agree education and training enable the creation of new business ventures, ensures the business is profitable and grows for sustainability.

The quantitative study findings from the question on education and training show respondents agreed with the statement that the level of education improves the leadership skills of construction SMEs. The empirical findings showed 72 percent of respondents identified level of education as a critical factor that influences the contribution of construction SMEs to economic growth. These findings support

Bomani *et al.* (2019: 3), who claim education is a vehicle for SMEs to gain technological knowledge and skills that advance production levels and improve quality products. Therefore, it appears respondents see education as a tool that develops the skills and abilities of construction SMEs to enable business performance (Lackeurs 2015: 7). This is contrary to Douglas *et al*. (2017: 231), who claim a high level of education is not a critical factor in influencing the performance and success of construction SMEs.

With reference to the study findings on entrepreneurial training, a significant number (69.4 percent) of respondents believe entrepreneurial training is a contributing factor to the leadership skills of construction SMEs. The respondents also appear to agree with Vasilska (2020: 18), who declared entrepreneurial training contributes greatly to SME owners, facilitating business success.

The findings from the empirical study indicate the vast majority (70.7 percent) respondents agreed level of education improves the ability of construction SME entrepreneurs to be innovative. These findings agree with the literature, as Wei *et al.* (2019: 1) and Almeida *et al*. (2018: 473) all distinguish level of education to be a formula for innovative talents, thereby forming a string atmosphere for innovation and entrepreneurship, resulting in sustainable growth of revenues/profits, as well as increased product quality and market share.

Business managerial skills

According to Fatoki and Garwe (2010: 732), business managerial skills are important for the survival and growth of businesses. In support, Asante *et al.* (2018: 366) assert business managerial skills enable the smooth running and growth of construction SMEs. Hence, Nqala (2019: 2) claims that business managerial skills are a key factor in construction SME performance in SA and lack of these critical skills result in the failure of these SMEs. The literature review shows business managerial skills in construction SMEs have decreased over the years (Lekan *et al.* 2021: 19; Wentzel *et al.* 2016: 1480; Eke *et al.* 2015: 1058; Thwala and Phaladi 2009: 536). Consequently, the findings from the quantitative study reveal an overwhelming majority (82.2 percent) of the respondents agreed that the lack of financially managing business funds influences the performance of construction SMEs. These findings agree with Anzagira *et al.* (2021: 151), who

contend that construction SMEs, particularly at a young stage, do not distinguish between business and personal funds.

The quantitative study findings, furthermore, show lack of managerial controls of construction SMEs' daily operations influence the performance of these firms. The findings are affirmed by an overwhelming majority (82.9 percent) of the respondents who agreed with the statement. Moreover, these findings from the quantitative study phase align with Thwala and Phaladi (2009: 536), who argued that the business failure of construction SMEs is due to the lack of effective management of daily operations.

The findings from the quantitative study indicate the lack of marketing tools by construction SMEs influences their performance. The findings are confirmed by an overwhelming majority (82.2 percent) of the respondents who agreed with the statement. These findings emerged from the quantitative study and agreed with Nyathi (2022: 27), in the assertion that there is a lack of interest in marketing by SMEs.

It was additionally revealed by the findings from the quantitative study that failure by construction SMEs to use social media as a low-cost marketing strategy, influences their contribution to economic growth. The findings are confirmed by an overwhelming majority (86 percent) of the respondents who agreed with the statement. These findings also support Rugova and Prenaj (2016: 86), who observed that social media has not been explored by construction SMEs as a low-cost marketing strategy.

The responses from the survey questionnaire further show an overwhelming majority (85 percent) respondents revealed lack of investment by construction SMEs influences the growth of these businesses. These findings are aligned with Thwala and Phaladi (2009: 536), who stated that in SA, there is lack of investment particularly in human capital. Tayeh *et al*. (2019: 56) maintain investment plays an influential part in improving the operational skills of SMEs.

Entrepreneurial leadership

According to Soomro *et al*. (2019: 4), entrepreneurial leadership enables the business owner or/and manager to drive organisational performance by directing and encouraging employees towards achieving the goals of the organisation.

Hence, poor organisational performance of SMEs is attributed to lack of entrepreneurial leadership (Mngeni 2015: 7). Consequently, the findings from the survey questions on entrepreneurial leadership indicate respondents confirmed lack of entrepreneurial leadership is found in construction SMEs and it influences their performance.

There was strong agreement amongst respondents that construction SMEs lack innovative behaviour, which influences their performance. The findings are confirmed by an overwhelming majority (88.5 percent) that agrees with the statement. Likewise, there is strong agreement amongst respondents that the lack of proactive behaviour influences construction SME performance. These findings agree with the assertion by Mngeni (2015: 7) that lack of SME performance is linked to lack of entrepreneurial leadership. This supports Mytelka *et al.* (2001: 130), who further affirm lack of innovation by SMEs is linked to business risks, associated with taking innovative steps.

Furthermore, the findings from the quantitative study reveal lack of leadership influences the performance of construction SMEs. The findings are confirmed by the overwhelming majority (89 percent) respondents that agreed with the statement. These findings support the argument by Sogaxa *et al.* (2021: 121) that the failure of construction SMEs is linked to lack of leadership of these firms.

The findings from the quantitative study also confirm Wentzel *et al.* (2016: 1483), who aver the failure of construction SMEs is attributed to lack of entrepreneurial skills, which influences their performance. The findings indicate an overwhelming majority (87.8 percent) of the respondents agreed that the failure to set strategic goals for construction SME growth influences their performance.

Shortage of skills

Skills shortage in the construction sector is also seen, both in the literature and from empirical data, to be a serious, ongoing challenge affecting the success of construction SMEs. The performance of the South African construction sector is greatly influenced by the shortage of critical skills (Dithebe *et al.* 2018: 1190). The findings from the quantitative study agree with the literature, recognising the skills shortage in the construction sector and that it influences the contribution of construction SMEs to economic growth. This is confirmed by an overwhelming

majority (89 percent) of the respondents who agreed with the statement. These findings from the quantitative phase are supported by the qualitative phase of the study, which revealed that the lack of skills in the Eastern Cape is linked to lack of construction SME projects.

To further affirm the challenge of a skills shortage, the findings from the quantitative study phase reveal construction SMEs struggle to recruit people with relevant expertise. This is confirmed by an overwhelming majority (88 percent) of the respondents that agreed with the statement. These findings concur with Lawani *et al.* (2022: 1) and Akomah *et al.* (2020:84) regarding the difficulty construction SMEs experience in recruiting workers and filling vacancies, due to insufficient skills.

Furthermore, the quantitative study phase findings indicate the failure of construction SMEs to provide training and development of workers has exacerbated the challenge of the skills shortage in the SME sector. The findings are confirmed by an overwhelming majority (87.5 percent) of the respondents that agreed with the statement. These findings are in line with Windapo *et al.* (2020: 424), who assert construction SME owners do not appreciate the need to improve employee skills due to the high costs associated with training.

The empirical study findings further identified the lack of technical and contractual skills as core skills for construction SMEs. The findings from the quantitative study phase reveal an overwhelming majority (87 percent) respondents agreed lack of technical skills affect the performance of construction SMEs. These findings support Aigbavboa and Thwala (2014: 771), who confirm that the lack of technical skills remains a challenge for construction SMEs. On contractual skills, the findings from the quantitative study indicate an overwhelming majority (87.1 percent) respondents agreed lack of contractual skills affect the performance of construction SMEs. These findings support the results from a study by Nyakala (2022: 8) that lack of contractual skills is a constraint faced by construction SMEs.

Organisational support

Organisational support is one of the critical pillars of any business. Hence, researchers assert top management support is a well-established phenomenon that enhances climate support to ensure business success (Young and Jordan

2008: 108; Hsu *et al.* 2019: 6). However, a study by Eze and Ugulu (2021: 168) discovered this phenomenon of top management support has not been explored by construction SMEs. This view is corroborated by the findings from the quantitative study, which indicate an overwhelming majority (80 percent) of the respondents believe that the lack of support from shareholders and/or a board of directors influence the performance of construction SMEs.

The findings from the quantitative study reveal a lack of interest to expand to other provinces influences the contribution of construction SMEs to economic growth. The findings are confirmed by an overwhelming majority (90 percent) of the respondents that agreed with the statement. Furthermore, the findings from the empirical study reveal the lack of business diversification influences the contribution of construction SMEs to economic growth. This is confirmed by an overwhelming majority (86.8 percent) of the respondents that agreed with this statement. The above findings are aligned to the assertion by Shan *et al.* (2017: 7) that the reason construction SMEs are not growing, is because top management do not implement business diversification and expansion strategies.

The findings from the quantitative study further show the lack of adopting a subcontracting strategy influences the growth of construction SMEs. The findings reveal an overwhelming majority (90.4 percent) of the respondents agreed with this statement. These findings support Noganta (2019: 16), who found a subcontracting strategy is not preferred by construction SMEs, due to the associated risks. Similarly, the findings from the quantitative study further show lack of JV strategy adoption influences construction SMEs' performance and contribution to economic growth. This has been confirmed by an overwhelming majority (86.5 percent) of the respondents that agreed with this statement.

The quantitative study findings show the inability to provide securities for lending or borrowing purposes by top management affects construction SMEs in obtaining construction projects. These findings are confirmed by an overwhelming majority (86.8percent) of the respondents that agreed with the statement. Furthermore, other findings from the quantitative study indicate that the inability to obtain insurances for lending or borrowing purposes by top management affects construction SMEs in acquiring construction projects. This is confirmed by an

overwhelming majority (87.1 percent) of the respondents that agreed with the statement.

There was also an agreement amongst respondents that the lack of timeous on-site supply of material by construction SMEs affects their performance in executing projects. This is confirmed by an overwhelming majority (92 percent) of the respondents that agreed with this statement. This concurs with Tayeh *et al.* (2019: 56), who determined that failure to deliver materials on time, is one of the constrains affecting SMEs. This is attributed to the excessive costs of materials (Adeyemi and Aigbavboa 2018: 1565).

The findings from the quantitative study phase indicate the lack of equipment affects the performance of construction SMEs in executing projects. These findings are confirmed by an overwhelming majority (91.4 percent) of the respondents that agreed with the statement, which confirms the views of Sityata (2019: 98), as well as Selai (2019: 6) that lack of equipment impacts the performance of construction SMEs in executing projects.

6.2.1.3 Environmental factors

The discussion that follows compares the literature review and the empirical findings of this study on environmental factors that influence construction SMEs' contribution to economic growth in the Eastern Cape province. A PESTEL analysis has been used to dissect environmental factors influencing the contribution of construction SMEs to economic growth. These factors are discussed below

Political

The findings from the quantitative study reveal lack of government political will to support construction SMEs affects their contribution to economic growth. The findings are confirmed by a vast majority (76.5 percent) of the respondents. These findings concur with Khan et al. (2022: 2), who claim government political support provides inadequate assistance to SMEs. Hence, Magoro and Brynard (2010: 14) argue insufficient involvement by government and political interference hinders the implementation of preferential procurement policy.

Unethical practices related to corruption in the public sector are found to be the major threat to the survival of construction SMEs (Ezebilo et al. 2019: 2). These practices negatively influence the business environment, since they affect

business growth (Mmbengeni et al. 2021: 2; Ezebilo et al. 2019: 14). In line with the literature reviewed, the findings from the quantitative study indicate unethical practices by government officials result in wasted tender expenses for construction SMEs, which affects their contribution to economic growth. These findings are confirmed by an overwhelming majority (83.5 percent) of the respondents that agreed with this statement.

The findings from the quantitative study phase further revealed demands for bribes by government officials affect the contribution of construction SMEs to economic growth. The findings are confirmed by an overwhelming majority (84 percent) of the respondents that agreed with the statement. These findings are aligned with Mmbengeni et al. (2021: 2) and Magoro and Brynard (2010: 14), who assert SA is struggling with high levels of fraud and corruption during tender adjudication process, where businesses pay bribes to be awarded tenders and this negatively affects the business environment in the country.

Technological

According to Anjum (2019: 1238), technology is a great benefit as it inspires SMEs to be innovative. Through technology, SMEs can compete in the market against bigger entities (Cherian and Kumaran 2016: 1). Nonetheless, the literature shows there is less technology use by construction firms in SA (Odubiyi et al. 2019: 5). The findings from the quantitative study support the literature that failure to adopt up-to-date technology influences the contribution of construction SMEs to economic growth. These findings are confirmed by an overwhelming majority (89.7 percent) of the respondents that agreed with the statement.

The quantitative study phase findings further indicate high technological costs make it difficult for construction SMEs adopt technology, which influence their contribution to economic growth. The findings are confirmed by the overwhelming majority (90.4 percent) respondents that agreed with the statement. These findings support Mogos et al. (2019: 628), who established the critical factor that makes it difficult for SMEs to adopt modern technology, is the high technological costs that affect their performance.

Lack of appetite to use modern technology can also be attributed to lack of expertise in modern technology (Odubiyi et al. 2019: 5; Mogos et al. 2019: 628).

The results from the quantitative findings indicate lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth. These findings are confirmed by an overwhelming majority (90.5 percent) of the respondents that agreed with the statement. Hence, Odubiyi et al. (2019: 5) and Mogos et al. (2019: 628) argue lack of SMEs to adopt modern technology influences their business performance.

Lastly, the findings of the quantitative study indicated rapid technological changes influence the contribution of construction SMEs to economic growth. The findings are affirmed by an overwhelming majority (88.7 percent) of the respondents that agreed with the statement. These findings support Wentzel et al. (2016: 1480), who found rapid change in technology is one of the critical factors that affect the performance of construction SMEs.

Social

Social trust is a catalyst for business success, with Jin et al. (2022: 507) arguing it is a critical external cultural environment component for businesses. Ouechtati et al. (2022: 15) attribute social trust to the desired outcome of the product produced. The findings from the quantitative study indicate lack of societal trust in the quality of services provided by construction SMEs affect their performance. These findings are confirmed by an overwhelming majority (84.3 percent) of the respondents that agreed with the statement.

In addition, the findings show lack of support from local communities affects construction SME performance. The findings are confirmed by an overwhelming majority (84.1 percent) of the respondents that agreed with the statement. These findings are in line with Donnelly (2019: 1) and Pocock (2018: 6) in their assertion that crime is linked with project stoppages caused by businesses from the local community that demand a project value share of 30 percent.

Furthermore, the findings reveal, due to religious differences, the community sources construction SMEs from other provinces, which affects the performance of local construction SMEs. The findings are confirmed by a vast majority (78.2 percent) of the respondents that agreed with the statement. The impact of religious differences has not been investigated as a barrier in the context of SME success and large businesses. However, Sabzehzar *et al.* (2020: 14) discovered religious

differences are a major barrier to online, peer-to-peer transactions in the context of pro-social lending. These findings support those from the quantitative study.

According to Ritchie and Brindley (2005: 106), the influence of culture on business is ongoing, with significant disparity noted amongst scholars. For example, Fletcher (2004: 290) contends SMEs are more likely not to export their services due cultural differences. This is contrary to Virglerova *et al*. (2021: 1023), who found cultural differences do not hinder SMEs to export their services in the form of expansion. However, the findings from the quantitative study reveal cultural differences cause the community to source construction SMEs from other provinces, which affects the performance of local construction SMEs. The findings are confirmed by a vast majority (79.8 percent) of the respondents that agreed with the statement. The influence of cultural difference on local community as a cause of community sourcing construction SMEs from other provinces has not been investigated.

Legal

The findings from the quantitative study indicate lack of government policy support for construction SMEs affects their contribution to economic growth. The findings are confirmed by a vast majority (75.6 percent) of the respondents that agreed with the statement. These findings agree with Lekan et al. (2021: 19), whose study findings revealed government policy as a most important factor affecting the success of construction SMEs in Nigeria. Furthermore, Fiseha et al. (2019: 212) suggest lack of policy support for entrepreneurial development, particularly in the rural areas, is a major constraint to SME performance.

The findings from the qualitative study further reveal public procurement regulations affect construction SMEs' contribution to economic growth. The results are confirmed by an overwhelming majority (88.5 percent) of the respondents that agreed with the statement. These findings correspond with the views of Windapo et al. (2020: 424) and Suliantoro et al. (2019: 13) that procurement regulation strategies imposed by government on SMEs are a cause of failure for these businesses. Hence, Pillay and Mafini (2017: 10) find procurement regulations create a bottleneck in the construction industry. Hlakudi (2015: 61) argues failure of the policy to achieve its intended purpose can only happen when the

procurement system is utilised incorrectly. Furthermore, Magoro and Brynard (2010: 14) assert key factors that hinder the implementation of a preferential procurement policy are the lack of strategy to apply the policy by government, insufficient involvement by government, and political interference.

6.2.2 Key findings - Objective 2

To examine the extent to which construction SMEs' contribution is aligned with government economic growth policy in the Eastern Cape province

The following discussion compares the literature review and the empirical findings of this study regarding the extent to which the construction SME contribution is aligned with government economic growth policy in the Eastern Cape province.

The empirical findings from the qualitative study indicated the government economic growth policy is not doing enough to support construction SMEs. Consequently, the contribution of the construction SMEs is not in line with government economic growth policy. This assertion has been indicated by participants who agreed the policy has not supported their businesses as a result their performance is greatly affected. Participants felt government is not doing enough to implement the policy. These findings are consistent with the literature that poor policy implementation and co-ordination by government is a cause for challenges facing SMEs (Oduntan 2014: 14; Economic Development Department 2007: 7). It can, therefore, be deduced that construction SMEs are contributing in line with the policy, due to a lack of policy implementation in the Eastern Cape.

6.2.3 Key findings - Objective 3

To determine characteristics of construction SMEs affecting economic growth in the Eastern Cape province

Qualitative data were presented using themes. Based on the results of the qualitative data, characteristics of construction SMEs affecting economic growth in the Eastern Cape province were discovered. The characteristics that improve the performance of construction SMEs are discussed below:

Skilled employees

In the qualitative phase, skilled employees were found to be one of the characteristics of construction SMEs that influence their performance. Agreement was indicated by the participants of a link between business performance and

skills of employees. The participants indicated employee skills enable their businesses to complete projects efficiently within budget, quality and time. This assertion is further supported by the quantitative findings that lack of technical skills affect the performance of construction SMEs.

Moreover, the findings from the qualitative phase showed when a business has skilled staff, operations run smoother and faster. The consequence of this may have over-reaching effects, in terms of construction SME owners/managers focusing on the strategic side of the business. It is noted skilled employees lead to productivity, which leads to higher profit margins. Research show that high skilled and well-trained employees lead to business to be more profitable by means of generating more revenue (Demirkan *et al*. 2022: 422; Akomah *et al*. 2020: 84).

Cashflow management

Another characteristic that was found to be critical for the performance of construction SMEs is cashflow management. The finding that emerged from the qualitative study indicated that cash is crucial for enabling the day to day running of the business where construction SMEs can procure materials, pay suppliers and staff salaries. Furthermore, the participants attributed the availability of cash in a business to good cashflow management. These findings agree with Alu Chituru *et al.* (2023: 3), who observe that cash flow management enables the business to fulfil its financial obligation which enables good performance in an organisation.

Moreover, the qualitative phase findings are consistent with the quantitative phase findings that discovered, due to delays in payment of work done for the government, construction SMEs face cash flow challenges, which influence their performance. This is supported by Kaya (2022: 2) and Mutti and Hughes (2002: 26), who determined that cash flow challenges hinder construction SMEs from fulfilling financial obligations as a result.

Proper equipment

The finding from the qualitative study revealed proper equipment to execute project work is a key characteristic of business performance and sustainability. This was indicated by a significant number of participants that indicated proper equipment enables the business to execute its projects efficiently. This finding is in line with the findings from the quantitative study that lack of equipment affects the

performance of construction SMEs to execute projects. These findings are supported by the literature, which state equipment in a construction company enables the company to be competitive and achieve business performance (Msomi and Olarewaju 2021a: 122; Sityata 2019: 98).

Furthermore, other participants believed there is no need for a construction SME business to own equipment, since this comes with high maintenance costs. However, participants agreed proper equipment is critical for business performance and can be acquired through hiring avenues. Therefore, participants agreed proper equipment enables business performance. However, participants did not agree on a suitable method of acquiring proper equipment.

Compliance with BEE

In term of being complain with BEE, there was agreement between most participants that the BEE policy in its current from is a critical characteristic, as there has been much achieved in uplifting black construction SMEs. However, a smaller fraction of participants did not agree with the notion that BEE is helping construction SMs. These participants believe BEE compliance should not be considered at the present time, since it is being used as an avenue for fraud and corruption.

With regard to literature, scholars agree not much has been achieved through BEE compliance (Anwana 2020: 3; Reddy 2016: 468; Emuze and Adlam 2013: 13). The latest research by Musabayana and Mutambara (2022: 80) found the B-BBEE policy has been unsuccessful in uplifting black-owned SMEs. However, in this study, most participants agreed BEE compliance assisted their businesses in obtaining tenders in the Eastern Cape. Therefore, for the purpose of this study, BEE compliance has been found to be a critical factor in enabling businesses to be awarded tenders.

6.2.4 Key findings - Objective 4

To explore how government regulations and laws influence the construction SME' contribution to economic growth in the Eastern Cape province

Regulatory factors

According to Rambaruth, Adam and Krishna (2022: 10), there are government regulations such as the PPPFA, which favours designated groups when awarding

government projects and these regulations destructively affect the economy and FDI.

Interestingly, the findings from the quantitative study indicate too many South African SME regulations influence the construction SME contribution to economic growth. An overwhelming majority (89.1 percent) of the respondents agreed with the statement, in confirmation. These findings agree with Kent (2013: 1), who claims there are too many regulations in SA, which are destroying construction SMEs. Some of these regulations are not relevant to the SME sector but turn to attract unnecessary compliance costs that are a burden to construction SMEs (Windapo *et al*. 2020: 2). Hence, Pham, Pham and Dang (2022: 2720) posit government can play a huge role by updating policies to be suitable to construction SMEs. In support, Lavic (2022: 93) states policy makers must deploy policies that would support and preserve SMEs, since this sector forms a critical part of the country's economic growth.

Furthermore, the findings from the quantitative study reveal non-compliance with government regulations cause construction SMEs to fail, which influences their contribution to economic growth. The findings are confirmed by an overwhelming majority (88.4 percent) respondents that agreed with the statement. These findings resonate with Esterhuyzen (2019: 36), who states failure of small businesses to comply with regulations, such as OHSA and Tax, can lead to penalties and fines or even the loss of government tenders, which will result in failure of these firms. In support, part of the regulations is that the South African government shall not enter into any business transaction with a supplier who does not have a valid tax clearance certificate as a minimum compliance (National Treasury 2004: 23).

The findings from the quantitative study indicate business registration costs influence the contribution of construction SMEs to economic growth. The findings are affirmed by an overwhelming majority (88.4 percent) of the respondents that agreed with this statement. These findings are aligned to Akinyemi and Adejumo (2018: 5) in their argument that matters around business registration processes are a bottleneck to survival and growth of small firms, particularly during start-up phase.

According to Cant and Wiid (2013: 707) and Abdissa and Fitwi (2016: 48), payment of licencing costs as mandated by government, are a constraint to construction SME growth, as it negatively affects the performance of these firms. The findings from the qualitative study reveal business licencing costs affect the contribution of construction SMEs, since it prohibits them from obtaining government SME projects. These findings are confirmed by the overwhelming majority (88.4 percent) respondents that agreed with the statement. These findings are in line with Maingi *et al.* (2019:1), who claim licencing compliance costs for SMEs are putting an excessive burden on these firms, with SME owners not meeting some of these critical requirements that affect long-term business performance.

Payment of tax is found by Fatoki and Garwe (2010: 730) and Lavic (2022: 94) to be a heavy burden for construction SMEs and has a negative impact on their growth. In support, Smulders and Naidoo (2013: 264) maintain tax compliance places a greater burden on SMEs, with these businesses having to pay high tax compliance costs as a percentage of turnover. The findings from the quantitative study indicate that high SARS monthly tariffs affect the contribution of construction SMEs to economic growth. The findings are confirmed by an overwhelming majority (88.5 percent) respondents that agreed with the statement.

These findings support Refiloe *et al.* (2020: 136), Xu *et al.* (2019: 4) and Wang (2016: 174), in their assertion that high tax rates highly influence the growth of SME businesses. Furthermore, the findings from the quantitative study reveal the lack of clarity on tax policies affects the contribution of construction SMEs to economic growth. The findings are confirmed by an overwhelming majority (88.5 percent) of the respondents that agreed with the statement.

The results from the qualitative phase support the findings of the quantitative phase. It was discovered government regulations affect construction SME profits and there are many requirements linked to compliance, which come with costs. The participants indicated much red tape was associated with tendering, which are mandatory requirements. Moreover, the participants stated there is considerable paperwork required as part of tender submission, which include registration certificates such as a letter of good standing and employee training certificates.

Furthermore, participants indicated monthly taxes are too much, and construction SMEs are not able to afford such costs. These findings are supported by Lavic (2022: 109) who discovered the tax burden is owed to the tax system, not necessarily the tax rate. Therefore, there is consistency on the findings between the qualitative and quantitative phases.

6.2.5 Key findings - Objective 5

6.2.5.1 Theoretical framework formulated from literature review

The literature review was used as the foundation to identify variables on which the research was developed on, as presented (Figure 7.1); these variables informed the conceptual framework of the study. Based on the literature review, it was discovered construction SME owners are encountering major challenges that hamper business growth and result in a smaller contribution by these firms to economic growth. These challenges enabled this study to formulate themes, where variables were derived that guided the research in formulating the survey questionnaire and interview schedule.

The challenges identified by means of a thorough literature review, include government support, regulatory factors, environmental factors, and education and training, as well as skills shortage, entrepreneurial leadership, and technical skills. These challenges were identified to have the greatest influence on the contribution of construction SMEs to economic growth. This allowed an integrated prototype model to be developed, after the primary data collection and scientifically testing of the variables. Based on the results, the suggested conceptual growth model is shown (Figure 7.2).

6.3 SUMMARY ON KEY FINDINGS OF OBJECTIVES

6.3.1 Key findings - Objective 1

External factors:

- The findings from the empirical study, supported by the literature review, have demonstrated lack of government support influences the of construction SMEs to economic growth in the Eastern Cape.
- The findings from the empirical study establish lack of finance for construction SMEs can be attributed to financial barriers, such as collateral securities and

high interest rates, which influence their contribution to economic growth in the Eastern Cape.

- The findings from the empirical study prove payment delays are a major influential factor that affects the contribution of construction SMEs to economic growth in the Eastern Cape.

Internal factors

- Based on the literature review and findings from the quantitative study, education and entrepreneurial training should be entrenched by construction SMEs as a catalyst, not only for business success and performance but for creation of new construction businesses, to enable the contribution of these entities to economic growth in the Eastern Cape.
- According to the literature review and empirical findings from the quantitative study, construction SMEs lack business managerial skills, and this influences their contribution to economic growth in the Eastern Cape.
- The findings from the empirical study, supported by a literature review on the influence of entrepreneurial leadership, proved entrepreneurial leadership has a direct impact on construction SME performance, which influences their contribution to economic growth in the Eastern Cape.
- Based on the literature review and empirical findings from the quantitative study on skills shortage, it is evident construction SMEs are not immune to the shortage of skills that influences their contribution to economic growth in the Eastern Cape.
- The findings from the quantitative study, which are supported by a review of relevant literature, proved organisational support as an internal factor does affect the performance of construction SMEs, which influences their contribution to economic growth in the Eastern Cape.

Environmental factors

- The findings from the quantitative study, which are supported by literature on political aspects that impact construction SMEs, proved there are pertinent factors related to political matters that influence construction SMEs' contribution to economic growth in the Eastern Cape.

- The findings from the empirical study, supported by literature reviewed on the impact of technology, confirm there are factors around the use of modern technology by construction SMEs that influence their contribution to economic growth.
- The findings from the empirical study, reinforced by a thorough literature review, confirmed there are, indeed, social factors such as lack of support from the community, as well as cultural and religious barriers, which influence the contribution of construction SMEs to economic growth in the Eastern Cape.
- Based on findings of the empirical study and literature review, there are legal factors which include lack of government policy support and procurement regulations which influence the contribution of construction SMEs in the Eastern Cape.

6.3.2 Key findings - Objective 2

The findings from the qualitative study that are supported by the literature, showed construction SMEs are not contributing in line with the government economic growth policy. The findings further established poor policy implementation and co-ordination by government are the root cause for the failure of construction SMEs not contributing to economic growth.

6.3.3 Key findings - Objective 3

The findings from the qualitative study, which are supported by literature, revealed there are key characteristics of construction SMEs affecting economic growth that include skilled employees, cashflow management, proper equipment and compliance with BEE. The study further revealed these characteristics enable business performance through the completion of projects within budget, quality and time.

6.3.4 Key findings - Objective 4

The findings from the empirical study, supported by an extensive literature review, revealed how government regulations and laws influence the construction SMEs' contribution to economic growth in the Eastern Cape.

The study findings and literature confirmed the following:

- Too many South African SME regulations influence the construction SMEs' contribution to economic growth.
- Non-compliance with government regulations cause construction SMEs to fail.
- Business registration and business licencing costs are a financial burden to construction SMEs.
- High SARS monthly tariffs reduce the profit margins of construction SMEs, which affect the growth of these businesses.

6.3.5 Key findings - Objective 5

Based on the empirical findings of the study, a prototype model was designed (Figure 7.2), which revealed internal and external factors influencing the contribution of construction SMEs to economic growth. Internal factors identified by the study include organisational support, education and training, business networking, and entrepreneurial leadership, as well as skills shortage, and business managerial skills. In addition, external factors found by the study include government support, regulatory factors, financial barriers, and corruption, as well as delay in payment, social factors, infrastructure and access to market.

6.4 CONCLUSIONS ON VARIABLES MATCHED WITH THEORIES

This section of the chapter seeks to explore theories relevant to innovation, growth of the firm and entrepreneurship.

Innovation, according to Schumpeter's (1934) innovation theory, is a systematic process of industrial transformation that continually revolutionises the economic structure from within, leading in constantly breaking the old and creating a new structure. Furthermore, Schumpeter's theory of innovation found the innovation process to have four critical components, namely, invention, innovation, diffusion, and imitation.

This implies innovation is a catalyst for continuous improvement of products and services supplied by businesses. In the context of this study, the innovative construction SME entrepreneur identifies new business opportunities and seeks to continuously improve the quality of projects delivered on time and within budgets, as factor that will ensure business growth and sustainability, thus, achieving a maximised contribution to economic growth in the Eastern Cape. Drucker (1985) showed well organised and managed innovation implementation by construction

SMEs with fully defined objectives will lead to sustained growth of revenue and profits. The tools and components of innovation discovered in this study enable construction SME entrepreneurs to achieve sustainable growth.

The theory of the growth of the firm (Penrose 1959), identifies growth as the internal process of business development and an increase in the amount of revenue and profits. In fact, the theory identifies a connection between growth and profitability and views business profits as the fruits of business growth. Therefore, based on the empirical findings of this study, business investment as a process of business development was established as a foundation for business growth and success, enabling construction SMEs to contribute enormously to economic growth in the Eastern Cape. Hence, literature views Penrose's theory as an enabler of firms to fully utilise resources to achieve efficiency in the company, where firms incorporate innovation and diversification in their products and services to achieve business growth.

Entrepreneurship theory (Drucker 1985) defines an entrepreneur as a person that keeps on searching for a change and provides a solution required to enable the change. In other words, an entrepreneur is always on the lookout for new opportunities and takes full advantage of those opportunities. Literature reviewed attribute certain characteristics to the entrepreneur, such as opportunity driven, innovator, business know-how, and business manager. Liquidity theory asserts entrepreneurs with financial capital are likely to obtain resources effectively, which will assist them to exploit opportunities. While human capital entrepreneurship theory advocates the knowledge attained through education and experience shows a resource that is heterogeneously spread across people and, in effect, central to understanding differences in opportunity recognition and exploitation.

The view of this study is that key entrepreneurial characteristics, such as being opportunity-driven and innovative, will enable construction SMEs to achieve growth and development that will enable them to progress their firms from one CIDB grade to another.

The empirical findings of the study also revealed critical components entrepreneurs should possess, such as innovative, proactive, and risk-taking behaviour, contractual and technical, as well as leadership skills, as a driver of

performance for construction SMEs. These entrepreneurial characteristics discovered in this research are found to be key drivers of business performance for construction SMEs, enabling them to contribute greatly to economic growth. Over and above these entrepreneurial characteristics, the empirical study findings, supported by liquidity theory and human capital entrepreneurship theory, found access to finance and level of education and training to be critical in enabling construction SMEs to execute projects effectively and efficiently, thereby improving profit margins.

Donaldson and Davis, who developed stewardship theory in1989, aimed to ensure the model of a manager is based on a steward, whose performance is aligned to the firm (Davis *et al.* 2018). A literature review posits the theory ensures alignment between business owner and manager on business goals through co-operation and collaboration between the parties. It is also important to note the literature indicates the theory assumes employees are aligned to the goals of the organisation. Perhaps this is caused by the alignment between the business owner and manager on business goals. Therefore, based on the empirical study findings, setting clear strategic goals for business growth is paramount to construction SMEs' performance and success.

6.5 CHAPTER SUMMARY

Based on the data analyses and empirical findings from the quantitative and qualitative phases of the study, it is evident South African construction SMEs, particularly in the Eastern Cape, are faced with immense, intractable challenges that greatly influence their contribution to economic growth. The variables tested have provided an overview on critical issues and challenges encountered by these enterprises in their day-to-day operations. The findings revealed factors that influence the contribution of construction SMEs, categorised into internal, external, and environmental factors. Important to note, the findings showed education and training to be the foundation of critical leadership and technical skills for business growth and development.

Construction SME internal factors included lack of investment in human capital, lack of shareholder support, and business managerial skills, to name a few, while external factors included financial barriers, government support, and competition in

the construction SME sector. Environmental factors include political, social, technological, and legal factors. Interestingly, the findings indicated religious and cultural differences influence the decision for construction SMEs to expand operations to other provinces. Furthermore, the findings revealed, due to a lack of policy implementation and co-ordination by government, construction SMEs are not contributing in line with the economic growth policy in the Eastern Cape. The study also revealed key characteristics affecting SMEs' contribution to economic growth are skilled employees, proper equipment, cashflow management and compliance with BEE requirements. Overall, the findings provided a clear view of critical factors that influence construction SMEs as a barrier to their contribution to economic growth that should be addressed by both government and the private sector.

The following chapter offers an overview on the detailed discussion of the study conclusions and recommendations.

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS

7.1 INTRODUCTION

The study investigated factors influencing the contribution of construction SMEs to economic growth in the Eastern Cape province. The study suggests a new integrated model designed to be of suitable help with improving the growth and performance of the construction SME sector, enabling them to contribute to economic growth to their maximum potential. The study commenced with a detailed literature review as secondary data for the study, which was used as a solid basis to direct the gathering of primary data through an empirical study; later analysed to establish key findings that answer the research aim and study objectives. This chapter provides a summary of the key findings, together with their implications, the limitations, and the recommendations of the study. Lastly, recommendations for further research are outlined.

7.2 CONCLUSION FROM THE STUDY

The main aim of this study was to explore factors influencing the contribution of construction SMEs to the economic growth of the Eastern Cape and to suggest a prototype model for the construction sector SMEs' contribution to economic growth. According to the study findings, the following conclusions can be drawn:

The demographic evidence indicated that:

- the biggest group of respondents were aged between 26 and 45 years.
- the vast majority construction SMEs were private companies.
- most respondents had a national diploma.
- most construction SMEs were in the general building category.
- most construction SMEs had CIDB grading 3.

7.2.1 Factors influencing construction SMEs' contribution to economic growth

Considering the research objective and the research questions related to factors influencing the construction SMEs' contribution to economic growth, the respondents recognised education and training as a critical variable influencing leadership skills of construction SMEs, where 69.4 percent of the respondents

indicated entrepreneurial training will improve leadership skills of construction SME entrepreneurs. The results further showed 70.7 percent of the responses find level of education to be a catalyst in improving the ability of construction SME entrepreneurs to be innovative. Therefore, these findings confirm that should construction SMEs obtain and cultivate leadership skills and facilitate a culture of innovation for their management team, knowledge empowerment through education and training should be entrenched by these organisations. Although the construction SMEs in SA are faced with constraints, which include high costs that are a burden, the benefits of education and training outweigh these constraints. The literature review also alluded to education and training being associated with increased quality products that lead to increased revenue and profit margins. Thus, as pillars of business success, education and entrepreneurial training cannot be isolated as an influence on business performance and sustainability.

According to the empirical findings, lack of government support as an external factor that influences the contribution of construction SMEs to economic growth has been identified as one of the factors that affect the success and survival of construction SMEs and enable their contribution to economic growth. Consequently, 77.9 percent of respondents showed lack of expertise amongst government officials affect construction SMEs' contribution to economic growth. The expertise of government officials enables construction SMEs to meet regulatory requirements such as obtaining finance, CIDB grading, SARS certification, COIDA, and more. This support by government officials ensures construction SMEs qualify to submit bids for tenders, particularly on government projects. Government support can also facilitate the development of technical skills of construction SMEs through workshops that enable SMEs to run their businesses efficiently. However, 74 percent of respondents indicated government institutions do not provide the required training, and this is results in a lack of technical skills by construction SMEs, which include contract management skills.

Liquidity is one of the enablers of business growth, particularly for construction SMEs, as these enterprises require capital to procure equipment and materials necessary to execute projects. Government is one of the stakeholders required to assist with financial support, nevertheless, 74 percent of respondents believe the government is not playing that role. Incubator programmes are critical for

construction SME support during the start-up phase, because they equip business owners/ managers with critical skills needed to run a successful business. It is important to note 74 percent of respondents indicated government has incubator programmes in place but failure to implement these programmes influences the construction SMEs' contribution to economic growth. Therefore, the study findings prove government support is a critical external factor influencing the contribution of construction SMEs to economic growth. The study concludes the South African government must empower construction SMEs with the strategic tools considered necessary to entrench business success and sustainability that will support their contribution to economic growth.

The study findings revealed access to finance is very important for business success and performance, and government agencies and the private sector, which include banks, are potential avenues where construction SMEs can access finance. Consequently, the study discovered lack of access to finance from financial institutions hinders construction SMEs' business growth and affects their contribution to economic growth, as indicated by 89 percent of the respondents. Moreover, the study understands the lack of access to loans is attributed to key financial barriers namely, inability to provide securities obtain insurances and credit facilities, as well as high interest rates. Regarding the inability to provide securities, 87 percent of the respondents could not access finance due to lack of securities as guarantee to financing agencies, which resulted in these businesses not being able to obtain construction projects. Similarly, with reference to insurances, 87 percent of the respondents could not obtain construction projects due to failure to obtain insurances for loans.

Furthermore, high interest rates charged on loans by creditors are the greatest threat to the survival of construction SMEs and affects their contribution to economic growth, as confirmed by 88 percent of the respondents. Thus, the study findings demonstrate lack of access to finance limits construction SMEs in achieving their optimum business growth and this is attributed to critical financial barriers that hinder these SMEs in obtaining funding from both government and the private sector.

Additionally, it is interesting to note the discovery in this study that delays in payment, as an external factor, has far greater influence on the contribution of construction SMEs to economic growth. Consequently, the study identified construction SMEs are heavily affected by delays in payment, by government departments, as businesses construction projects wait for a prolonged period before invoices are paid, as indicated by 90 percent of the respondents. Furthermore, the study found delays in payment by the private sector is a major contributor to the performance of construction SMEs, as confirmed by 89 percent of the respondents. In addition, the empirical findings of the study discovered delays in payment by the community and/or private individuals also affect the performance of construction SMEs, which limit the contribution of these firms to economic growth; confirmed by 83 percent of the respondents.

The empirical results of the study further identified business managerial skills as an enabler of the smooth running and business growth of construction SMEs. These skills are a key driver of business development and are a catalyst for business to achieve organisational goals. Consequently, the study findings are conclusive as respondents agreed lack of financial business fund management influences the performance of construction SMEs, as indicated by 82 percent of respondents.

Business funds are crucial to successful day-to-day operations of construction SMEs and when these are mismanaged by construction SME owners/managers, serious financial problems will emerge. Moreover, the study found the performance of construction SMEs is influenced by lack of managerial controls of daily operations by owners or managers of these firms, as confirmed by 82 percent of respondents. Thus, business managerial skills, as an internal factor, are crucial for the long-term sustainable growth and survival of construction SMEs. The literature review also alluded to business managerial skills being a driver of business performance and failure by construction SME owners/managers to embrace these skills can lead to business failure.

The study findings also confirmed entrepreneurial leadership, as an internal factor, has a significant influence on the performance of construction SMEs. This is confirmed with 88 percent of respondents that indicated lack of innovative

behaviour has a direct influence on construction SMEs' performance, while 87percent of respondents believed lack of proactive behaviour influences the performance of construction SMEs. Therefore, the study reveals the direct influence of entrepreneurial leadership on the performance of construction SMEs.

The study, furthermore, verifies a skills shortage greatly influences the performance of construction SMEs and their contribution to economic growth. This was indicated by 89 percent of respondents, with 88 percent of respondents revealing the difficulties construction SMEs must recruit people with relevant expertise. There is agreement among respondents that technical skills, which include contractual skills, are scarce in the market and this affects the performance of construction SMEs. It is important to note the study found respondents believe a skills shortage challenge is aggravated by failure of construction SMEs to provide training and development for workers and this creates a skills gap in the SME sector. This is confirmed by 87 percent of respondents. Thus, the study findings prove a shortage of skills, as an internal factor, influences the contribution of construction SMEs to economic growth.

It is, additionally, interesting to note agreement was found among respondents that organisational support, as an internal factor, has a far greater influence on the contribution of construction SMEs to economic growth. Consequently, the study discovered the lack of support from shareholders and/or a board of directors directly influences the performance of construction SMEs, as indicated by 80 percent of respondents. Hence, it is no surprise the study further realised the lack of timeous supply of materials and lack of equipment on site to execute construction projects, affect the performance of project teams to execute projects, as confirmed by 92 and 91 percent of respondents, respectively. Furthermore, the study finds a lack of support from shareholders and/or a board of directors to provide securities to obtain finance, also contributes to construction SMEs' lack of ability to accumulate sufficient capital that will enable business growth and enhance contribution of these firms to economic growth, as indicated by 87 percent of respondents.

The study, moreover, revealed a lack of interest by construction SMEs to adopt subcontracting and JV strategies and expands to other provinces, which

influences the contribution of construction SMEs to economic growth. The decision to adopt these strategies for business growth resides within the mandate of shareholders and the board of directors. Therefore, the study has shown the need for organisational support by senior management and that this support has a direct influence on business growth and the contribution by construction SMEs to economic growth.

7.2.2 Extent to which construction SMEs' contribution is aligned with the government economic growth policy in the Eastern Cape province

Considering the research objective and the research question related to the extent to which SMEs construction firms' contribution is in line with the government economic growth policy, the study findings revealed construction SMEs are not contributing in line with the policy. The findings discovered that poor policy implementation and co-ordination by government is the root cause for the failure of construction SMEs in contributing to economic growth.

7.2.3 Environmental factors influencing construction SMEs' contribution to economic growth

Considering the research objective and research questions related to environmental factors influencing the construction SMEs' contribution to economic growth, the study findings discovered, using PESTEL analysis that political, technological, social and legal factors have a greater influence on contribution of construction SMEs to economic growth. Consequently, the study found the lack of government political will to support the construction sector has impaired the performance of construction SMEs, which affects the performance of these firms. This is confirmed by 76 percent of respondents. Relatedly, 83 percent of respondents felt unethical practices by government officials have resulted in wasted tender expenses for construction SMEs, as tender adjudication is not done based on the quality of submission of tenders, rather on payment of bribes. Hence, the study further revealed that demands for bribes by government officials hinders construction SME growth, as indicated by 84.5 percent of respondents.

The study findings also confirm technological infrastructure is a key enabler for construction SMEs to have competitive advantage, resulting in business growth and development. Subsequently, the study verified failure to adopt up-to-date

technological infrastructure makes construction SMEs less viable, which influences their prospects of attaining projects. This is confirmed by 90 percent of respondents. It is further important to note the respondents attributed the failure to adopt up-to-date technology to high technological costs, as stated by 90 percent of respondents. Furthermore, the study discovered rapid technological changes directly influence the performance of construction SMEs, as these firms are unable to keep up with these changes.

The empirical findings of the study determined social factors to be of great influence on the contribution of construction SMEs to economic growth. This is confirmed by 84 percent of respondents that indicated lack of social trust in quality of services provided by construction SMEs affects their performance. Interestingly, the study findings established that religious and cultural differences that make the community source construction SMEs from other province affect construction SMEs, as indicated by 78 and 80 percent of respondents, respectively.

The study findings additionally showed legal factors influence the contribution of construction SMEs to economic growth. Consequently, the study proved lack of government policy support for construction SMEs influences the performance of these firms, as government policies do not promote business efficiency due to red tape imposed by government. This was confirmed by 76 percent of respondents. Hence, the study further revealed public procurement regulations restrict construction SMEs in obtaining public projects, which affect the contribution of these firms to economic growth, as stated by 88 percent of respondents.

7.2.4 Characteristics of SME construction firms affecting economic growth

Considering the research objectives on characteristics of construction SMEs affecting economic growth, the study revealed key characteristics of construction SMEs affecting economic growth include skilled employees, cashflow management, proper equipment and compliance with BEE. These findings were determined through semi-structured interviews.

In terms of skilled employees, the interviews highlighted the skills of employees are a catalyst of business performance and sustainability. This is due to skilled staff working efficiently and finishing each project within budget, quality and time, thus, achieving high profit margins. Regarding cashflow management, the

interviews revealed cashflow management enables the organisation to have cash to run day-to-day operations of the business. This leads to projects being completed on time, without delays. In terms of proper equipment, the findings revealed proper equipment enabled businesses to perform and be competitive. Lastly, compliance with BEE requirements was identified as key in enabling construction SMEs in the Eastern Cape to be awarded tenders. It was acknowledged there are opportunities to improve the efficiency of BEE implementation to assist black-owned businesses to have an advantage.

7.2.5 How government regulations influence construction SMEs' contribution to economic growth

Considering the research objective and the research questions related to how government regulations influence construction SMEs' contribution to economic growth, the study findings revealed regulatory factors have a great influence on their economic growth contribution. The empirical findings concluded too many SME regulations in SA hinder the contribution of construction SMEs, as indicated by 89 percent of respondents, while 88 percent indicated that non-compliance with government regulations results in construction SMEs failure, thus eliminating their contribution to economic growth. Moreover, business regulation costs and licencing costs are placing added strain on construction SMEs, affecting their profit margins. This is affirmed by 88 percent of respondents. The study also found respondents in agreement that high SARS monthly costs are a burden to the financial performance of construction SMEs and limit their contribution to economic growth.

7.3 CONCLUSIONS

The conclusions formulated from the empirical study are interpreted and discussed in accordance with the following research objectives:

1. To establish factors that influence the construction SME contribution to economic growth in the Eastern Cape province.
2. To examine the extent to which construction SMEs' contribution is aligned to government economic growth policy in the Eastern Cape province.
3. To identify environmental factors influencing construction SMEs' contribution to economic growth in the Eastern Cape province.

4. To determine characteristics of construction SMEs affecting economic growth in the Eastern Cape province.
5. To explore how government regulations and laws influence construction SMEs' contribution to economic growth in the Eastern Cape province.
6. To suggest a prototype model for the construction sector SMEs' contribution to economic growth.

7.3.1 Conclusion as to the research objectives

The following section captures an overview of the conclusions of the study in line with the above research objectives. Furthermore, the statistical analysis of the study findings and the hypotheses tested were used to draw the study conclusions. Through the questionnaire (Appendix 5) and interview schedule (Appendix 5) all variables tested were derived from the literature review and the research objectives. After primary data were collected, the data were analysed, indicating challenges and critical factors that influence the contribution of construction SMEs to economic growth. Through the study findings, an integrated model for the contribution of construction SMEs to economic growth could be designed and utilised by both SME owners and government to facilitate maximised performance of these firms.

Objective 1: To establish factors that influences the construction SME's contribution to economic growth in the Eastern Cape province

This objective has been met. In considering the research objective related to the factors influencing construction SMEs' contribution to economic growth, the study concludes there are key factors that influence the contribution of construction SMEs to economic growth, which are categorised into internal and external factors. The study further concludes these external factors to include government support, high prices of required materials, financial barriers, and access to market, as well as delays in payments, networking resources and competition in the construction sector. It is further concluded the internal factors include education and training, business managerial skills, entrepreneurial leadership, and shortage of skills, as well as organisational support.

Objective 2: To examine the extent to which construction SMEs' contribution is aligned with the government economic growth policy in the Eastern Cape province

This objective has been met. Semi-structured interviews were conducted with construction SME owners and managers. The study concludes construction SMEs are not contributing in line with government economic growth policy in the Eastern Cape. The interviews revealed this is due to the lack of policy implementation and co-ordination by government.

Objective 3: To determine characteristics of construction SMEs affecting economic growth in the Eastern Cape province

This objective has been met. In considering the research objective related to characteristics of construction SMEs affecting economic growth, the study concludes the key characteristics of construction SME firms affecting economic growth are, skilled employees, cashflow management, proper equipment and compliance with BEE. The study discovered these characteristics improve business productivity and enable construction SMEs to be competitive, thus, achieving business performance and contributing to economic growth.

Objective 4: To explore how government regulations and laws influence construction SMEs' contribution to economic growth in the Eastern Cape province

This objective has been met. In considering the research objective related to how government regulations and laws influence construction SMEs' contribution to economic growth, the study concludes that too many regulations and laws in SA hinder construction SMEs from contributing to economic growth. Furthermore, the study deduces that procurement regulations, business registration and licencing costs place a huge strain on the financial performance of construction SMEs, making it difficult for these firms to be sustainable in the sector. Moreover, the study construes that high SARS monthly tariffs affect the profit margins of construction SMEs, while it is further concluded that non-compliance with government regulations and laws cause construction SMEs to fail, which influences their contribution to economic growth.

Objective 5: To suggest a prototype model for construction sector SMEs' contribution to economic growth

This objective has been met. The prototype model proposed in this study (Figure 7.2) can be adopted by government and construction SMEs for the development of these businesses to ensure their maximum contribution to economic growth is fully achieved in any country.

7.4 CONCLUSION ON RESEARCH HYPOTHESES

The below section provides an overview on the conclusions made about the hypotheses of the study, each is addressed below:

Ha0: *There is no relationship between level of education and innovative ability towards construction SMEs' contribution to economic growth in Eastern Cape*
Ha1: *There is a relationship between level of education and innovative ability towards construction SMEs' contribution to economic growth in Eastern Cape*

The result of the bivariate correlation shows the relationship between the tested variables is significantly positive at .573** (sig. 0.000). Therefore, the null hypothesis is rejected, concluding that level of education and innovative ability are related and impact construction SMEs' contribution to economic growth in the Eastern Cape.

Ha0: *There is no relationship between government political will and government financial assistance towards construction SMEs' contribution to economic growth in Eastern Cape*
Ha2: *There is a relationship between government political will and government financial assistance towards construction SMEs' contribution to economic growth in Eastern Cape*

The result of the bivariate correlation shows the relationship between the tested variables is significantly positive at .551** (sig. 0.000). Therefore, the null hypothesis is rejected, concluding that government political will and financial assistance are related and impact construction SMEs' contribution to economic growth in the Eastern Cape.

Ha0: *There is no relationship between record keeping and monitoring operational activities towards construction SMEs' contribution to economic growth in Eastern Cape*
Ha3: *There is a relationship between record keeping and monitoring operational activities towards construction SMEs' contribution to economic growth in Eastern Cape*

The result of the bivariate correlation shows the relationship between the tested variables is significantly positive at .693** (sig. 0.000). Therefore, the null hypothesis is rejected, concluding that record keeping and monitoring operational activities are related and impact construction SMEs' contribution to economic growth in the Eastern Cape.

Ha0: *There is no relationship between innovative behaviour and technical skills towards construction SMEs' contribution to economic growth in Eastern Cape*
Ha4: *There is a relationship between innovative behaviour and technical skills towards construction SMEs' contribution to economic growth in Eastern Cape*

The result of the bivariate correlation shows the relationship between the tested variables is significantly positive at .613** (sig. 0.000). Therefore, the null hypothesis is rejected, concluding that innovative behaviour and technical skills are related and impact construction SMEs' contribution to economic growth in the Eastern Cape.

Ha0: *There is no relationship between access to loans and high interest rates towards construction SMEs' contribution to economic growth in Eastern Cape*
Ha5: *There is a relationship between access to loans and high interest rates towards construction SMEs' contribution to economic growth in Eastern Cape*

The result of the bivariate correlation shows the relationship between the tested variables is significantly positive at .778** (sig. 0.000). Therefore, the null hypothesis is rejected, concluding that access to loans and high interest rates are related and impact construction SMEs' contribution to economic growth in the Eastern Cape.

Ha0: *There is no relationship between rapid technological changes and expertise in modern construction towards construction SMEs' contribution to economic growth in Eastern Cape*
Ha6: *There is a relationship between rapid technological changes and expertise in modern construction towards construction SMEs' contribution to economic growth in Eastern Cape*

The result of the bivariate correlation shows the relationship between the tested variables is significantly positive at .769** (sig. 0.000). Therefore, the null hypothesis is rejected, concluding that rapid technological changes and expertise in modern construction are related and impact construction SMEs' contribution to economic growth in the Eastern Cape.

Ha0: *There is no relationship between business diversification and interest to expand to other provinces towards construction SMEs' contribution to economic growth in Eastern Cape*
Ha7: *There is a relationship between business diversification and interest to expand to other provinces towards construction SMEs' contribution to economic growth in Eastern Cape*

The result of the bivariate correlation shows the relationship between the tested variables is significantly positive at .790** (sig. 0.000). Therefore, the null hypothesis is rejected, concluding that business diversification and interest to expand to other provinces are related and impact construction SMEs' contribution to economic growth in the Eastern Cape.

Ha0: *There is no relationship between the use of social media and business networks towards construction SMEs' contribution to economic growth in Eastern Cape.*
Ha8: *There is a relationship between the use of social media and business networks towards construction SMEs' contribution to economic growth in Eastern Cape.*

The result of the bivariate correlation shows that the relationship between the tested variables is significantly positive at .520** (sig. 0.000). Therefore, the null hypothesis is rejected, concluding that the use of social media and business

networks are related and impact the construction SME contribution to economic growth in EC.

Ha0: *There is no relationship between clarity of tax policies and compliance with government regulations towards construction SMEs' contribution to economic growth in EC.*
Ha9: *There is a relationship between clarity of tax policies and compliance with government regulations towards construction SMEs' contribution to economic growth in EC.*

The result of the bivariate correlation shows the relationship between the tested variables is significantly positive at .754** (sig. 0.000). Therefore, the null hypothesis is rejected, concluding that clarity of tax policies and compliance with government regulations are related and impact construction SMEs' contribution to economic growth in the Eastern Cape.

7.5 IMPLICATIONS

The outcome of this study included implications for construction SMEs' contribution to economic growth in the Eastern Cape.

Implications of business growth theory for construction SMEs

The primary purpose of this study was to contribute to the body of knowledge by proposing an integrated prototype model on critical factors in business management that influence the contribution of construction SMEs to economic growth in the SME sector, with specific reference to South African construction SMEs in the Eastern Cape province. This study was guided by the innovation theory, theory of the growth of the firm, entrepreneurship theory, stewardship theory and economic growth theory. These theories help in understanding factors that play an important role in the growth and development of the firm, consequently, realignment of the priorities of construction SME owners or managers took over to maximise profits and gain sustainable business growth. The theories reviewed in this study were fundamental for the theoretical contribution of this study.

Based on the literature reviewed and empirical findings of the study, construction SMEs in SA and other countries are faced with critical challenges that hinder these firms from contributing optimally and sufficiently to economic growth in their

respective nations. As such, the proposed integrated prototype model was developed and proposed which shows critical internal and external factors that influence the performance of construction SMEs in order to attain sustainable growth. Consequently, the proposed integrated prototype model supplements and complements the existing business growth theories on construction businesses, in particular SMEs. Thus, it is of critical importance that construction SME owners or managers study this proposed prototype model, which facilitates an environment that will be conducive for their businesses to maximise opportunities and attain competitive advantage. Through the proposed prototype model, construction SMEs will be in a better position to full the promise of being drivers of a better economy in both developed and developing countries.

Implications for construction SME practice

This study is aimed at positioning South African construction SMEs to be a beacon of hope in creating employment and facilitating economic transformation and development by contributing fully to the country's economic growth. Based on this background, it was crucial for this study to be undertaken to identify key factors that influence the contribution of SME construction firms to economic growth. The results of the study imply business growth can be attained because of sound government support, adequate finance, good cashflow, and proper education and training, along with good business managerial skills, sound entrepreneurial leadership, improved technical skills, and solid organisational support.

The study advocates for government to support construction SMEs by providing sound and tangible financial support through different government financing agencies, such as SEDA and the ECDC. These financing agencies must be felt by construction SMEs on the ground and be decentralised to be closer to these firms to enhance visibility. Government departments must ensure construction SMEs are paid on time for these businesses to attain a good cashflow. Furthermore, government support through removal of red tape, low-cost business registration and licencing, including monthly tax tariffs, has been found to be a catalyst for improved business profits.

Policy makers need to revisit the South African procurement framework (PPPFA), in order that all government projects favour the use of small construction

businesses when bids are put out in the market. This will ensure construction SMEs are not left behind when government projects are rolled out. Furthermore, this study promotes proper education and training to be entrenched as one of the values for construction SMEs. Thus, construction SMEs need to have budget for education and training each year to equip employees with business managerial skills and technical skills.

For construction SMEs to attain private projects, this study identifies the use of social media as a low-cost marketing strategy, which will enable these firms to gain a competitive edge in the market. Moreover, the study recommends that construction SMEs attain sustainable business growth and development through implementation of JV and subcontracting strategies, as well as business expansion to other provinces. Lasty, this study promotes the use of up-to-date technology that will enable construction SMEs to run efficient projects. Thus, construction SMEs need to invest by procuring up-to-date technological infrastructure.

7.6 RECOMMENDATIONS BASED ON THE STUDY RESULTS

This section contains recommendations based on the empirical study findings, to enable construction SMEs to improve their contribution to economic growth.

Theoretical framework formulated through variables identified from the literature review

As shown in the previous chapters, through a rigorous literature review, the formulation of the objectives, hypotheses and data collection was achieved. This was done by means of the literature review as a foundation for identifying and selecting variables that supported the development of this research study, as shown in figure 7.1 below.

The review of literature has revealed that construction SME entrepreneurs are affected by many challenges that influence their businesses in contributing to economic growth. The identified challenges were categorised into research themes in order to create a focus for the research study. The theoretical framework below shows education and training, technical skills, entrepreneurial leadership, and shortage of skills, as well as access to market, government institutions, regulatory factors, and government support, in addition to finance,

organisational support, business management and technical skills, along with social, political, technological and economic factors, were all critical components that influenced construction SMEs' contribution to economic growth. These variables were used for questionnaire and interview schedule formulation. Consequently, these variables were scientifically tested and, as a result, the proposed integrated prototype growth model has been developed and is shown in figure 7.2 below.

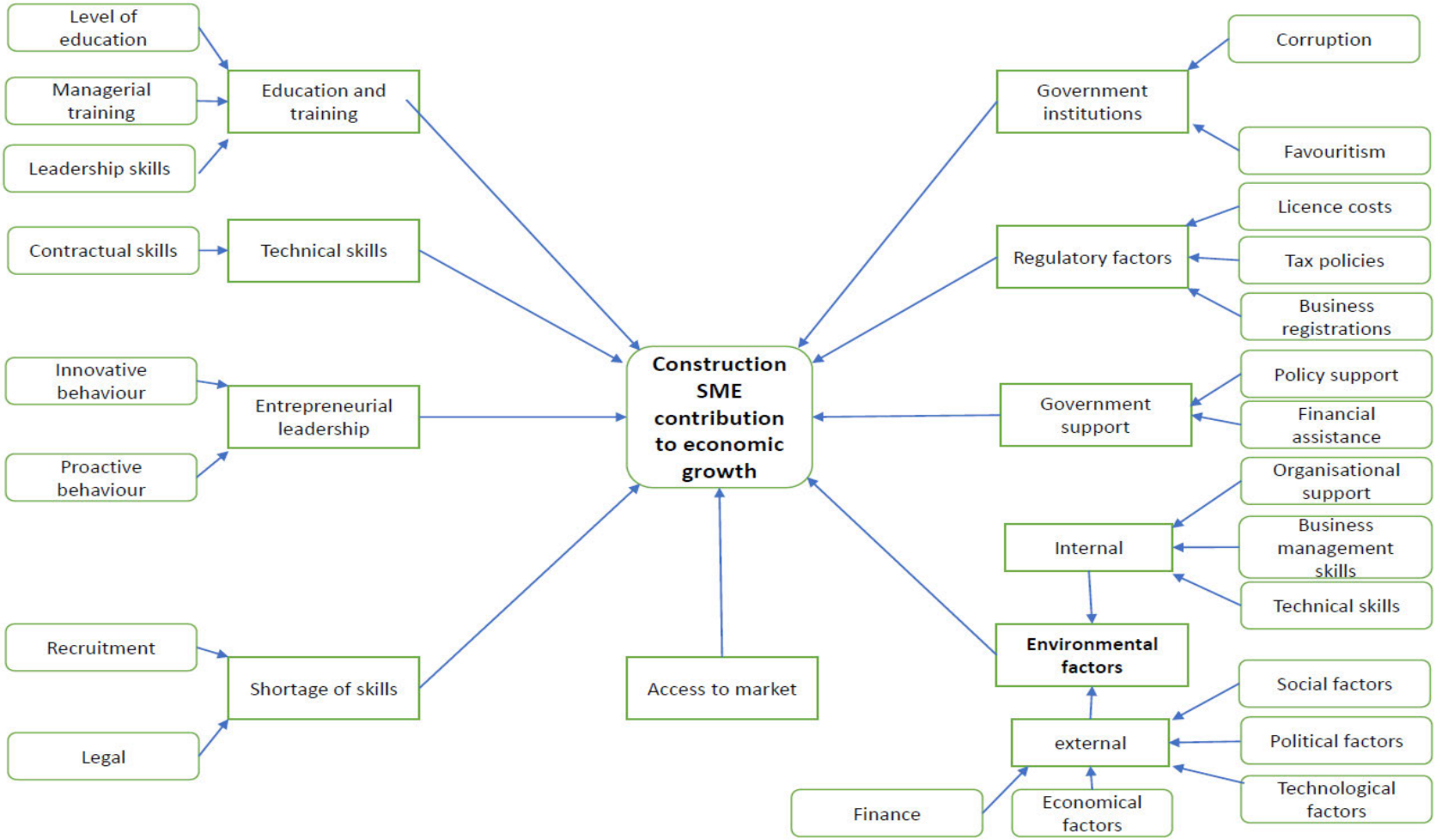

Figure 7.1: Conceptual framework based on literature review

Source: Developed by researcher

7.7 PROPOSED INTEGRATED PROTOTYPE GROWTH MODEL

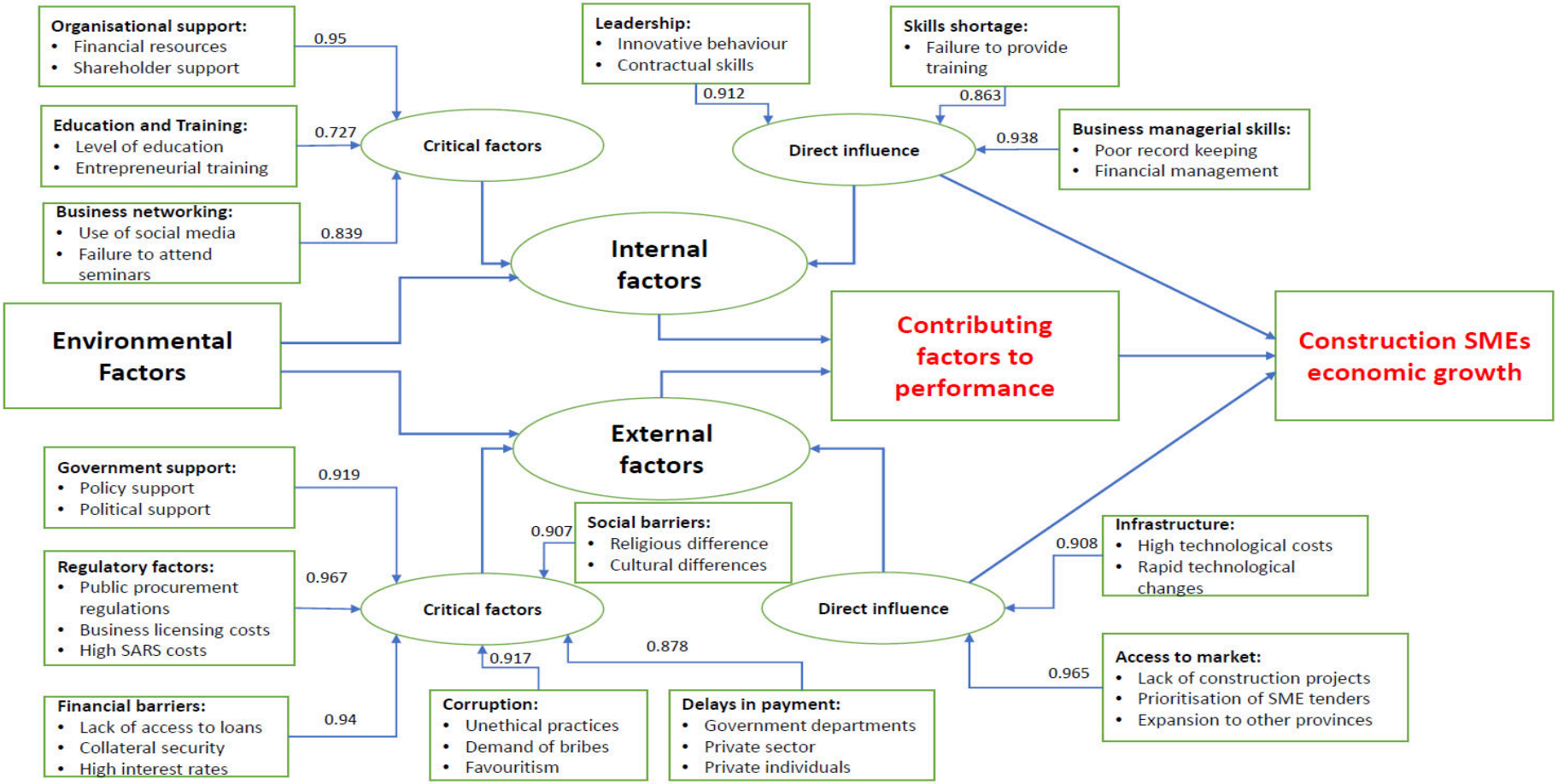

Figure 7.2: Suggested integrated prototype growth model

Source: Developed by researcher

The proposed integrated prototype growth model shown above (Figure 7.2) was developed through meticulous analysis of both secondary and primary data gathered and through insights gained from the study's conceptual framework. The primary data were arrived at by testing a wide range of variables identified in the conceptual framework (figure 7.1), all of which were deemed by the respondents and participants (construction SMEs owners or managers) to significantly impact the influence of their businesses' contribution to economic growth.

Consequently, the proposed integrated prototype growth model indicates critical factors that influence the performance of construction SMEs, which ultimately influences the contribution of these firms to economic growth. Factors that directly impact construction SMEs' contribution to economic growth have been categorised into two forms, namely, internal and external factors; discussed below.

Regarding the internal factors, organisational support, education and training, and business networking were found to be critical factors that influence the performance of construction SMEs. These critical factors impact the contribution of construction SMEs to economic growth through influencing their business performance. Furthermore, construction SMEs try to navigate their day-to-day operations, while grappling with these critical factors in trying to achieve business performance.

Part of the internal factors are leadership, skills shortage and business management skills, found not only to influence the performance of construction SMEs but to directly impact the construction SMEs' contribution to economic growth. This implies, when these factors are compromised, minimum performance is achieved, making it inevitable the contribution of these construction SMEs is directly affected.

Likewise, external factors were found to include government support, regulatory factors, financial barriers, and corruption, as along with delays in payment, and social barriers, as critical factors influencing the performance of construction SMEs. Additionally, construction SMEs try to navigate their day-to-day operations while struggling with these critical factors, leading to these businesses achieving poor business performance. Nonetheless, part of the external factors is access to

market (sufficient construction projects) and infrastructure, such as technology, which were found to not only have an influence on construction SME performance but to also have a direct influence on the construction SMEs' contribution to economic growth. This means, should these factors be affected, the contribution of construction SMEs will be directly impacted, since these firms are unable to find ways to manage these factors.

Organisational support: This support was found to be of critical importance, since businesses that provide solid support for day-to-day operations turn out to be efficient and maximise business opportunities in the market. It is, therefore, recommended that construction SME owners/managers should ensure support is provided at all levels of the company. Business support includes proper communication and alignment of business goals. The empirical findings of the study are further supported by stewardship theory, in that it advocates for the correct alignment between business and employee goals that will, in turn, enable the organisation to achieve business performance and business success.

Education and training: The level of education and training is identified to be of importance paramount for organisational performance. The empirical findings found a high level of education improves leadership skills and the ability for entrepreneurs to be innovative. Thus, individuals with higher qualifications are perceived to possess critical leadership skills and be drivers of innovation. Therefore, it is recommended construction SMEs should invest in educating and training their own employees to equip and empower these individuals with knowledge and skills they require to facilitate innovation in their businesses. This is backed by human capital entrepreneurship theory, which promotes knowledge attainment through education and training that will equip employees to solve critical issues and provide required leadership in the organisation.

Business networking: The study has identified business networking as a critical foundation to afford entrepreneurs the opportunity to share new and fresh business ideas on business growth and development, as well as to exploit low-cost marketing strategies to market their businesses in untapped markets. It is;

therefore, recommended construction SME entrepreneurs attend business seminars and make use of social media to market their businesses.

Leadership: The proposed prototype model shows entrepreneurial leadership as a source of innovative behaviour and improved contractual skills that respondents believe is a critical factor for business success. The study recommends quality entrepreneurial leadership should be embedded as part of organisational culture, which will be a catalyst for innovative and risk-taking behaviour.

Skills shortage: The empirical findings of the study identify a skills shortage as a risk to the survival of construction SMEs, since the shortage of critical skills directly impacts their performance. In addition, construction SMEs encounter difficulties in recruiting candidates with relevant expertise who will add value to the success of the organisation. It is recommended construction SMEs provide appropriate training and development for their employees, aligned to business requirement in terms of scarce skills.

Business managerial skills: The proposed prototype model reflects lack of business managerial skills as a challenge, referring to lack of managerial controls, lack of marketing tools, lack of investment on human capital, and lack of financial management as part of business management, which influences business performance, as indicated by respondents. Thus, business owners need to improve their business skills through formal business leadership training that will equip them with key business management skills.

Government support: The empirical findings of the study indicate government support, in the form of prioritising construction SMEs on tenders, providing financial assistance, and technical skills workshops or training, are key areas of intervention to support construction SME owners in running their businesses. It is, therefore, recommended that government must provide tangible support aimed at providing tenders that will target small businesses. Second, government must provide financial support dedicated to SME businesses that will attract less interest. Third, government must formulate a database of local companies and try to split the work among those in the database. Fourth, government must ensure construction SMEs are paid on time. There must be a system that will monitor all

submitted invoices as part of a dashboard by government seniors. Fifth, government must formulate a budget for construction SME projects and include mandatory 30 percent subcontracting of SME for projects executed by large companies. Last, government must provide workshops at discounted prices that will be used to equip small businesses with critical skills and provide business management workshops on key business aspects.

Regulatory factors: The empirical findings of the study found regulatory factors, in terms of governmental policy support, business registration, SME registration and public procurement, were deemed key aspects with which construction owners needed assistance. It is, therefore, recommended that government should ensure policies cushion construction SMEs instead of being a bottleneck to the growth and sustainability of these firms, which can be achieved through eliminating red tape and high business licencing costs. Government must not only find ways to protect small firms from procurement regulations, as these laws turn to favour large firms by removing red tape on tendering and reduce compliance requirements. Government officials and policy makers who develop policies for SMEs must also have relevant experience and involve all stakeholders, particularly SMEs when developing policies. Lastly, government should also loosen controls regarding regulation compliance of small businesses.

Financial barriers: High interest rates, collateral requirements and credit scores were identified by the study as critical factors that impact construction SMEs' access to loans, which influenced their contribution to economic growth. Government's stringent requirements on these matters make loan application processes seem insurmountable, particularly for new entrepreneurs. Thus, it is recommended government must loosen loan application requirements for small business and even consider a zero-interest rate, which is needed by these firms, particularly in these difficult times.

Corruption: Based on the empirical study, the proposed prototype model found unethical practices, demand of bribes and favouritism caused by government officials to be a hinderance to sustainable construction SME growth, as indicated by the respondents. There is a need for government to take decisive steps in

eradicating all forms of corruption in the construction industry, as this places an enormous strain not only on the performance of construction SMEs but the entire industry.

Delays in payment: Late payment of submitted invoices by government, private sector and the community was found by the empirical study to be one of the reasons why the performance of construction SMEs deteriorate, which eventually leads to business failure. It is recommended government should develop a fully-fledged, independent agency that not only examines entities that take longer to pay small businesses, but also takes legal actions against such entities. In addition, tis agency should also provide bridging finance to these firms while in financial distress.

Social barriers: The empirical study found community support to be a cornerstone of the success of small businesses. Furthermore, the study identified culture and religion to be barriers to business growth and development of local construction SMEs. Proper community interventions led by local leaders should be mobilised to provide awareness on the importance of supporting local businesses. The DTI should acknowledge customers who support local businesses, irrespective of their culture or religion, to encourage the empowerment of local content.

Infrastructure: High and rapid technological changes were identified by the empirical study to be shortcomings to the implementation of ICT infrastructure, which affect the innovation of entrepreneurs. Therefore, the study recommends government, through the DTI, should offer incentives to small business that invest in ICT, thus encouraging small firms to align themselves to up-to-date ICT infrastructure.

Access to market: Access to market, in the form of having sufficient construction SME projects in the Eastern Cape, has been identified as a major factor in the performance of construction SMEs, which influences their contribution to economic growth. It is, therefore, recommended the Eastern Cape government should ensure the prioritisation of projects that will fit in the scope of small businesses. Furthermore, the government of the Eastern Cape should develop interventions

that will encourage the private sector to prioritise the participation of small firms in executing projects, as opposed to having projects with greater scope that will disqualify small companies.

7.8 RECOMMENDATIONS

7.8.1 Business Management Support

The findings of this study revealed the contribution of construction SMEs is affected by lack of business management to support their contribution to economic growth:

- Formal business training and development is a catalyst for business growth and development for construction SME owners. The study recommends SME owners/managers need to identify their own capabilities in as far as business management is concerned, should they be intentional regarding business growth and development. Moreover, enrolling in an institution, whether locally or internationally, will equip them with key business management skills and capabilities, and sharpen their entrepreneurial skills to drive and manage business growth effectively and efficiently.
- It is recommended owners/managers of small construction companies identify successful large businesses in the construction industry that can build strong lasting relationships with them to be coached and mentored into best business management practices. This will create an opportunity for a shared knowledge in the construction industry, as a systematic mechanism that will be a foundation for sustainable business success and development.
- Construction SMEs, particularly at a young age, need to separate between business and personal finances. Business funds must be channelled purely for running business operations, particularly the fulfilment of project requirements, which include procurement of required equipment and materials. This will help in ensuring construction SMEs are able to complete projects within the required costs, time, and quality. Thus, enabling the business to achieve maximum profits.
- Construction SMEs further need to develop an internal auditing system that can monitor the daily running of the business, to add value, improve business operations and ensure the business achieves maximum performance. The

internal auditing system needs to be objective and provide business owners/managers with improved knowledge that will help them execute their responsibilities. This will assist to close all the gaps that may be found in the business value chain that can influence construction SMEs' efficiency and productivity.

7.8.2 Business Investment

From a business investment perspective, the study recommendations are detailed below:

- It is recommended for construction SME owners or managers to invest in an appropriate financial management system that will capture and record all the daily financial activities of the business. The financial management system will assist the business owners/managers to manage the income, expenses, and business assets, which will enable the business to achieve maximum revenues and profits that will result in long-term business sustainability. Moreover, the correct financial management system will enable SME owners and managers to generate financial business statements and draw financial projections that might be used by these firms when applying for funding from financing agencies. Small firms that cannot afford to procure a financial management system can hire out this business aspect to financial institutions that provide these services.
- The study recommends construction SMEs invest vigorously in training and education for critical skills such as contractual and entrepreneurial leadership skills. These construction businesses need to consider developing business policies that will not only support in-house educational capabilities but also attract employees with critical scarce skills in the market. Consequently, employee training and development should be the core of business strategic objectives. This will enable construction SMEs to be competitive in the market and achieve long-term business survival.
- A further recommendation is that construction SMEs invest the greater part of their business profits back into the business, to acquire new equipment and required critical skills. This will not only enable these businesses to be in a state of liquidity but will also put them in a position to provide securities and

bonds for projects when required by potential clients. Thus, these construction SMEs will achieve sustainable business growth and development.

- Construction SMEs need to, furthermore, invest in up-to-date IT that will facilitate innovation of employees within the business. Moreover, the investment must produce staff with sound IT knowledge, as this will support and improve business innovation that will enable construction SMEs to achieve a competitive edge against their business rivals.
- It is recommended construction SMEs should form strong partnerships with technical schools and TVET colleges by offering bursaries to best performing students. This will entrench the development of core technical skills that will eliminate the skills shortage in the construction sector.

7.8.3 Business Policy Reassessment

Based on the study findings, government regulations cause construction SMEs to fail, and this affects their contribution to economic growth. Furthermore, lack of policy implementation influences the contribution of construction SMEs. Therefore, the following recommendations are presented:

- Procurement regulations need to be reviewed by policy makers to allow construction SMEs to participate in submitting bids for tenders without being disqualified for not meeting certain criteria. Instead, government must develop an agency that will ensure small companies receive support to comply with procurement regulations during and after the tender award process. This will ensure construction SMEs are part of the market and not excluded from tender processes due to their lack of compliance with procurement regulations.
- The South African government should formulate a regulatory framework that will classify construction firms into different tiers, using CIDB grading levels. This will ensure a level playing field amongst the construction businesses, where large entities do not compete with small entities. This framework should be enforced not only in government entities but also in the private sector.
- Policy makers should re-assess the payment of high monthly SARS costs and business licencing by smaller construction businesses, as these are placing excessive strain on these firms. Construction SMEs should be exempt from

paying some of the monthly SARS tariffs and business licencing costs, particularly when these have not reached a certain threshold of the business turnover. This will alleviate the strain from these policies to enable business growth and development.

- The South African government, through the department of small business development, needs to re-examine all legislation that govern business operations of construction SMEs and streamline these regulations by eliminating any that impose red tape on the daily running of construction SMEs. This will ensure small construction firms do not fail within the first five years from their inception, which is the case, where the empirical study revealed many government regulations in SA cause construction SMEs to fail.

7.8.4 Improved Organisational Support

Based on the study findings, the performance of construction SMEs is greatly influenced by organisational support. Therefore, the study recommends that:

- Construction SME owners/managers need to set strategic business goals aligned to the growth and development of their enterprises. The set strategic goals must be communicated throughout the business to ensure alignment across the entire organisation and also gain employee support. Appropriate monitoring and evaluation of organisational goal implementation must be performed frequently for applicable intervention to be actioned when and where required.
- The study recommends construction SME owners/managers must explore the implementation of business growth strategies, which include JV and subcontracting strategies as a means of acquiring new projects. Construction SME owners need to be extra cautious when entering into these JV and subcontracting agreements, where legal advice might be required to avoid litigation because of these growth strategies.
- It is further recommended that construction SME owners investigate the implementation of business diversification and expansion to other provinces, as means and avenues of ensuring continuous inflow of work for business continuity. This should accelerate and increase construction SME turnover and ultimately, lead to business growth.

7.8.5 Improved Government Support

The empirical study findings indicate government support has a strong impact on the business performance of construction SMEs, which influences their contribution to economic growth. Thus, it is recommended that:

- The South African government must re-evaluate the strategic support role intended for financing agencies, such as SEDA, Khula Enterprise Finance, Ntsiki Enterprises Promotions Agency and NEF, in supporting small business and explore methods of overhauling the application process for financing. Furthermore, government should ensure the visibility of these agencies to business owners by decentralising their offices into townships, where struggling small business are mostly found. This will ensure entrepreneurs are fully aware of these agencies and their role in providing business finance for business growth and development.
- Incentive schemes should be created and extended by Government through policy development that will encourage and support construction SMEs to invest in innovation and technology. This can be achieved by ensuring government incentives for any business transaction the business commits to that is aligned to innovation development. The government can look to the Integrated Innovation Strategy 2022 of the Technology and Innovation Basic Plan introduced by the Japanese government as an innovation policy. This policy is aimed at developing measures that seek to stimulate innovation in the country.
- Government needs to urgently address the issue regarding delays of payment for completed work, where invoices are submitted and certified by government officials for processing. This requires putting proper monitoring systems in place that will monitor the payment process of construction SMEs in all its departments to ensure their payment is done within the contractually agreed time-frames. This will alleviate the financial distress on these small businesses.
- In promoting successful business incubator programmes, government must entrust the CIDB with the responsibility of facilitating the empowerment of construction SMEs, where larger firms are encouraged to mentor small firms to

promote skills transfer. Large firms willing to coach and mentor small firms should be given incentives to encourage continued participation in the programme. Furthermore, government must incorporate the incubation programmes in all tenders targeted to bigger business, with a requirement where at least one construction SME firm is developed by a bigger firm. This will create a robust and successful construction industry that will enable competition across all sectors.

- Government must deal decisively with acts of corruption in the construction industry, as these limit chances of fair business for construction SMEs. Government employees and construction SMEs should be continuously encouraged to collectively work together in fighting corruption by reporting these corruption activities to law enforcement agencies for necessary steps to be taken. This will afford all construction businesses in the sector equal opportunities to access new projects.
- In each financial year, government needs to ensure sufficient projects are targeted for the business of construction SMEs across all construction disciplines. Government must develop an integrated plan for implementation and guidance for officials, monitored by senior government executive.

7.9 LIMITATIONS OF THE STUDY

The population sample of the study comprised 303 construction SME owners or managers for quantitative study, who are formally registered. The sample was collected by means of non-probability convenience sampling, which limited the ability to generalise the study findings. However, the qualitative phase of the study was undertaken to close any gaps that would have arisen because of using non-probability convenience sampling for the data collection of the quantitative phase. In addition, the study did not include other provinces. Although the study covered only the Eastern Cape province, the study findings could still be used by governments and SMEs of other provinces; however, proper care should be applied in using the findings. Moreover, survey questions were closed-ended, and the interview schedule utilised open ended questions to gather primary data from the respondents, with the measurement instrument content generated through a rigorous process of literature review, guided by the research objectives and

questions. The collected data were thus limited to respondent contributions, with regard to factors influencing the contribution of their businesses to economic growth.

7.10 RECOMMENDATIONS FOR FUTURE RESEARCH

Regarding further research, the study recommends the scope of additional research to be conducted into: “An assessment on effectiveness of government financial agencies on the support of sustainable growth and development of construction SMEs”. This study will enable government to understand the shortcomings of these financial agencies and streamline its processes to best suit the SME environment.

The study recommends wider research on the contribution of all construction businesses, which include larger and informal firms, to the economy of the Eastern Cape province. This will ensure a conclusive contribution in all levels and classes of the construction industry.

Future research should, furthermore, also focus on the advantages of construction SMEs to expand their operations to other provinces in SA, particularly those classified as economic hubs, namely, Gauteng, KZN and the Western Cape. This has the potential of ensuring sustainable contribution and growth is realised by these entities.

A critical analysis on South African infrastructure in enabling construction SMEs to function economically and profitably will provide government with a road map to overhaul and invest in infrastructure that will enhance construction SME performance.

Further research is also required on business diversification strategies that could be used by construction SMEs. This will not only ensure growth but also business continuity.

Additional research is needed to assess efficiency of CIDB support on the development of construction SMEs. This will help the CIDB to know and understand what the expectations of these construction businesses are, as guide to how they could improve their services in meeting those expectations.

Further research needs to be undertaken to assess local communities' perceptions and trust towards construction SMEs. This will help construction SMEs to know what their customers' expectations are, how to meet them and what support they may require from business consultants.

Lastly, further research is recommended on best practices construction SMEs could employ during a global pandemic, using COVID-19 as the case study. This research will prepare construction firms to be ready and resilient, not only during an unplanned pandemic but also during a recession period.

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APPENDICES

APPENDIX 1: ETHICAL CLEARANCE LETTER

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

15 March 2022

Mr L Flepisi
43 16th Avenue
Gonubie
East London

Dear Mr Flepisi

Factors influencing the contribution of SME construction firms' to the economic growth: evidence from Eastern Cape
Ethical Clearance number IREC 188/21

The Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the IREC acknowledges receipt of your gatekeeper permission letter.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely,

Prof J K Adam
Chairperson: IREC

APPENDIX 2: GATEKEEPER LETTER

21 May 2022

Attention: Chief Executive Officer/Managing Director/ General Manager

Name of the company

……

Address

……..

……..

……..

Dear Sir/Madam

RE: REQUEST FOR PERMISSION FOR YOURSELF OR DIRECTORS OR MEMBERS AND SENIOR MANAGERIAL STAFF OF YOUR BUSINESS TO PARTICIPATE IN THIS STUDY FOR ACADEMIC RESERCH PURPOSES:

My name is **Lubabalo Flepisi**, I am a doctoral student studying towards PhD in Management Sciences: Business Administration at the Durban University of Technology, South Africa. The research I wish to conduct for my Doctoral thesis involves investigating factors influencing the contribution of construction sector SMEs to economic growth in South Africa: case of the Eastern Cape Province.

I am hereby seeking your consent to allow me to invite yourself, directors, members, senior management staff, and project managers in your business to participate in the above-mentioned study. The participation in this study is voluntary and no one will be forced to participate. Please be assured that the information provided will be treated with strict confidentiality and it will be used for the journal articles, conferencing, and PhD study.

The results of the study will be used for the completion of the doctoral dissertation and is intended to contribute to an existing body of knowledge. Through the participation of directors, senior managers, members and construction business owners, I hope to investigate the contribution of the construction sector SMEs to the economic growth in the Eastern Cape Province and explore the factors that are affecting their contribution. I hope to propose prototype model to support the construction sector contribution to the economic growth.

The participation of yourself or your staff in this study is voluntary and no one will be forced to participate. I would like to assure you that the information shared by yourself and or your staff will not be linked or associated to you or your business, profession or individual capacity. The confidentiality and the anonymity of records identifying yourself, directors, members, senior management staff, programme and project managers as participants will be always maintained. Pseudonyms and codes will be used to identify the study participants. All confidential data will be managed in terms of the Durban University of Technology policy and be deleted after five years.

This survey should take the participants about fifteen minutes to complete.

I will be grateful if you could afford me the opportunity to conduct this research within your business/organisation. If you grant me permission to survey your staff, please could you provide me with a list of your staff members to enable me to send them a survey questionnaire to complete. If you require any further information, please do not hesitate to contact me on 0664776875 or by email lubabalo@siyavuya.co.za.

I humbly thank you for having taken the time to read this letter and I humbly look forward to receiving a favourable response from you.

Yours faithfully,

Mr. Lubabalo Flepisi
Student No. 21856839

CONSENT

I have read and understand the above information. I agree to allow the senior managerial staff members of my organization to participate in this study.

CEO's / Managing Director's /
Member's/ Owner of Business's signature _____ Date_____

Company/Close Corporation/
Entity/ Business stamp

Researcher's signature_____ Date _____

APPENDIX 3: LETTER OF INFORMATION AND CONSENT

LETTER OF INFORMATION

Title of the Research Study : Factors influencing the contribution of construction sector SMEs to economic growth in South Africa: case of the Eastern Cape Province.

Principal Investigator/s/researcher: Lubabalo Flepisi (MBA, B.Tech: Elec Eng)
Co-Investigator/s/supervisor/s: Dr Anna Johanna Catharina Womack (PhD, MBA, PGDBM, LLB, B.Soc. Sci), Dr Lawrence Mpele Lekhanya (PhD, D.Tech)

Brief Introduction and Purpose of the Study:

Through the perception the key stakeholders in the construction businesses the purpose of this mixed method research study is to investigate factors hindering the construction sector contribution to the economic growth of the Eastern Cape province.

Good day,

I am a doctoral student at DUT doing research for PhD in Management Science: Business Administration.
I would like to invite you to participate in the research.

Outline of the Procedures:

The purpose of this study is to investigate factors influencing the construction sector contribution to the economic growth. The results of the study will be for the completion of the doctoral dissertation and is intended to contribute to an existing body of knowledge. Through your participation I hope to investigate the importance of construction sector; importance of economic growth; factors affecting construction sector contribution to the economic growth in the Eastern Cape Province. This will enable the study to propose prototype model for supporting such contribution for economic growth

Data will be collected by means of administering a survey questionnaire and interviews to you. The questionnaire will be delivered to the you electronically. For those who will be interviewed, face-to-face or virtual, a meeting will be arranged whichever manner they prefer. The researcher will contact the participants to arrange for the venue and time that will suit the participant. This questionnaire or interview will take approximately 10 – 20 minutes to complete. The complete questionnaires will be collected by the researcher

with the interview feedback for data analysis and interpretation. There will be approximately 343 participants that will be involved in the study.

Risks or Discomforts to the Participant: There are no predictable risks or discomforts to participants.

Explain to the participant the reasons he/she may be withdraw from the Study: Participation in this study is voluntary and you can choose to withdraw from the study at any stage. There will be no consequences for the participant should they choose to withdraw.

Benefits: There will be no benefit to participate to the study.

Remuneration: There will be no remuneration for participants in the study.

Costs of the Study: No costs will be incurred for participating in this study.

Confidentiality: Information obtained in the study will be treated in the firmest confidence. All data extracts will be quoted in the study as entirely anonymous**.**

Results: The results will not be distributed or made available since the study will contain confidential information for construction businesses.

Research-related Injury: N/A

Storage of all electronic and hard copies including tape recordings: All electronic records and all confidential data will be stored safely for five years and will be shredded and deleted thereafter.

Persons to contact in the Event of Any Problems or Queries:(Supervisor and details) Please contact the researcher (066 477 6875.), my supervisor (031 373 5366) or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate Support Dr L Linganiso on 031 373 2577 or researchdirector@dut.ac.za.

APPENDIX 4: LETTER OF CONSENT

CONSENT

Full Title of the Study:

Names of Researcher/s:

I have been informmed about the nature, conduct, benefits and risks of this study

- Research Ethics Clearance Number: _____,

- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

_____	_____	_____	_____
Full Name of Participant	**Date**	**Time**	**Signature / Right Thumbprint**

I, Lubabalo Flepisi, herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Full Name of Researcher	**Date**	**Signature**

Full Name of Witness (If applicable)	**Date**	**Signature**

Full Name of Legal Guardian (If applicable)	**Date**	**Signature**

Please note the following:

Research details must be provided in a clear, simple and culturally appropriate manner and prospective participants should be helped to arrive at an informed decision by use of appropriate language (grade 10 level- use Flesch Reading Ease Scores on Microsoft Word), selecting of a non-threatening environment for interaction and the availability of peer counselling (Department of Health, 2004).

If the potential participant is unable to read/illiterate, then a right thumb print is required and an impartial witness, who is literate and knows the participant e.g. parent, sibling, friend, pastor, etc. should verify in writing, duly signed that informed verbal consent was obtained (Department of Health, 2004).

If anyone makes a mistake completing this document e.g. a wrong date or spelling mistake, a new document has to be completed. The incomplete original document has to be kept in the participant's file and not thrown away, and copies thereof must be issued to the participant.

References:

Department of Health: 2004. *Ethics in Health Research: Principles, Structures and Processes* http://www.doh.gov.za/docs/factsheets/guidelines/ethnics/

Department of Health. 2006. *South African Good Clinical Practice Guidelines*. 2nd Ed. Available at: http://www.nhrec.org.za/?page_id=14

APPENDIX 5: QUESTIONNAIRE

Department of Management and Entrepreneurial Studies

10 July 2022

……

……..……

Dear Participant

Letter of Consent

My name is **Lubabalo Flepisi**, I am a doctoral student studying towards PhD in Management Sciences: Business Administration at the Durban University of Technology, South Africa. I hereby seek your consent to conduct research for my Doctoral thesis involves investigating **"factors influencing the contribution of construction sector SMEs to economic growth in South Africa: case of the Eastern Cape Province"**.

The aim of this topic is to seek information from owners and managers regarding their perception on factors influencing the construction sector SMEs' contribution to the economic growth in the Eastern Cape Province.
The participation of yourself and/or your staff in this study is voluntary and no one will be forced to participate. I would like to assure you that the information shared by yourself and/or your staff will not be linked or associated to your business or personal capacity. Please be assured that the information provided will be treated with strict confidentiality and it will not be used for any purpose except for this study.
You may refuse to participate, or you may withdraw from the project at any time with no negative consequences as you do not have to answer individual questions you may not want to answer. Your name will not be attached to the questionnaire and all information will be held in the strictest confidence. Therefore, should you have any query with regard to the questionnaire or about participating in this study, do not hesitate to contact me or my supervisor on the telephone numbers below.

The questionnaire will take approximately twenty to thirty minutes to complete.

Thank you for your participation.

_____
Researcher s Name: Lubabalo Flepisi
Cell Number: 066 477 6875

_____
Supervisor: Dr A.J.C Womack
Contact Number: 031 373 5366

_____
Co-Supervisor: Dr L.M. Lekhanya
Contact Number: 031 373 5372

_____
DUT Research Ethics Administration
Contact Number: 031 373 2375

SECTION A: BIOGRAPHICAL INFORMATION

Please mark with a cross (X) only ONE option in the questions below.

6 Please indicate your gender.

1a.	Male.	
1b.	Female.	
1c.	Other, please specify.	

7 Please indicate your age group.

2a.	18 - 25 years.	
2b.	26-45 years.	
2c.	46-65 years.	
2d.	Other, Please specify.	

8 Please indicate your highest qualification.

3a.	Secondary education.	
3b.	Matriculation.	
3c.	Certificate.	
3d.	National diploma.	
3e.	Post Graduate diploma.	
3f.	Bachelor of Technology.	
3g.	Post Graduate Degree.	
3h.	Honours Degree.	
3i.	Masters Degree.	
3j.	Doctor of Philosophy.	
3k.	Other, please specify.	

9 Please indicate the type of ownership.

4a.	Sole proprietor.	
4b.	Partnership.	
4c.	Private Company.	
4d.	Public Company.	
4e.	Close Corporation.	
4f.	Other, please specify.	

10 Please indicate which type of construction business you would classify your business as.

5a.	GB = General building.	
5b.	CE = Civil Engineering.	
5c.	ME = Mechanical engineering.	
5d.	EB = Electrical engineering. (Building)	
5e.	EP = Electrical engineering. (In)	
5f.	Specialist works (SB to SQ)	
5g.	Other, please specify	

11 Please indicate the number of years the business has been in existence.

6a.	1 – 5 years.	
6b.	6 – 10 years.	
6c.	11 – 15 years.	
6d.	More than 15 years, please specify.	

12 What is your current position in the business entity?

7a.	Chief Executive Officer.	
7b.	Managing Director.	
7c.	Director of a Company.	
7d.	Senior Manager.	
7e.	Manager.	
7f.	Member of a Close Corporation.	
7g.	Owner.	
7h.	Partner.	
7i.	Trustee of a Trust.	
7j.	Other, please specify.	

13 What is the Construction Industry Development Board (CIDB) Grading of your business?

8a.	Grade 1.	
8b.	Grade 2.	
8c.	Grade 3.	
8d.	Grade 4.	
8e.	Grade 5.	
8f.	Other, please specify.	

14 How many people does your business employ?

9a.	Less than 10.	
9b.	11-20.	
9c.	21-50.	
9d.	51-100.	
9e.	100-200.	
9f.	Other, please specify.	

15 What is your business's average annual turnover the last three years?

10a.	Less than R200 000.	
10b.	R201 000 to R3 000 000.	
10c.	R3 000 001 to R6 000 000.	
10d.	R6 000 001 to R10 000 000.	
10e.	R10 000 001 to R20 000 000.	
10f.	R20 000 001 to R26 000 000.	
10g.	Other, please specify.	

SECTION B: FACTORS INFLUENCING THE SMES CONSTRUCTION FIRMS' CONTRIBUTION TO ECONOMIC GROWTH IN THE EASTERN CAPE PROVINCE

Please indicate your response to the following statements, regarding the factors that influence the SME construction firms' contribution to economic growth in the Eastern Cape Province.
Select an option that is most appropriate to you from strongly agree, agree, neutral, disagree to strongly disagree.

1 = Strongly Agree
2 = Agree
3 = Neutral
4 = Disagree
5 = Strongly disagree

Please mark with a cross (X) for each option that truly reflects your response to the statements below:

16 **Please indicate to what extent the following factors in terms of <u>education and training</u> affect the performance of construction SMEs:**

	Statement	1	2	3	4	5

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
11a.	Level of education improve the leadership skills of construction SMEs entrepreneurs.	☐	☐	☐	☐	☐
11b.	Entrepreneurial training will improve the leadership skills of construction SMEs entrepreneurs.	☐	☐	☐	☐	☐
11c.	Level of education will improve the ability of construction SMEs entrepreneurs to be innovative.	☐	☐	☐	☐	☐

17 **Please indicate to what extent the following factors in terms of <u>governmental support</u> affect the construction SMEs' contribution to economic growth:**

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
12a.	Lack of expertise amongst government officials affect construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12b.	Lack of government policy support for construction SMEs affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12c.	Lack of government political will to support construction SMEs affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12d.	Lack of government day to day guidelines for SMEs construction firms affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12e.	Lack of technical skills workshop or training provided by government institutions affect construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12f.	Lack of government financial assistance for construction SMEs affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12g.	Lack of government incubator programme implementation for construction SMEs affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12h.	Lack of government budget for construction SME projects affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
12i.	Incapacity to spend funds received for construction SME projects affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐

18 **Please indicate to what extent the following factors, in terms of <u>business managerial skills</u> affect the performance of construction SMEs:**

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree

13a.	Poor record keeping by construction SMEs affect their opportunities to obtain credit from financial agencies.	☐	☐	☐	☐	☐
13b.	Lack of monitoring operational activities affect the performance of the construction SMEs.	☐	☐	☐	☐	☐
13c.	Lack of managerial controls of the daily operation of the construction SMEs affect their performance.	☐	☐	☐	☐	☐
13d.	Lack of financially managing business funds affects the performance of construction SMEs.	☐	☐	☐	☐	☐
13e.	Lack of marketing tools affects the performance of construction SMEs.	☐	☐	☐	☐	☐
13f.	Lack of collaboration with local companies affects the performance of construction SMEs.	☐	☐	☐	☐	☐
13g.	Competition in construction sector affect the performance of construction SMEs.	☐	☐	☐	☐	☐
13h.	Lack of internal auditing by construction SMEs affect their performances.	☐	☐	☐	☐	☐
13i	Lack of investment by construction SMEs affect their business growth.	☐	☐	☐	☐	☐

19 Please indicate to what extent the following factors, in terms of <u>entrepreneurial leadership</u> affect the performance of construction SMEs:

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
14a.	Lack of innovative behaviour affects the performance of construction SMEs.	☐	☐	☐	☐	☐
14b.	Lack of proactive behaviour affects the performance of construction SMEs.	☐	☐	☐	☐	☐
14c.	Lack of risk-taking behaviour affects the performance of construction SMEs.	☐	☐	☐	☐	☐
14d.	Lack of technical skills affects the performance of construction SMEs.	☐	☐	☐	☐	☐
14e	Lack of contractual skills affects the performance of construction SMEs.	☐	☐	☐	☐	☐
14f.	Lack of leadership abilities affects the performance of construction SMEs.	☐	☐	☐	☐	☐
14g.	Failure to set clear strategic goals for growth affect the performance of construction SMEs.	☐	☐	☐	☐	☐

20 Please indicate to what extent the following factors, in terms of <u>shortage of skills</u> affect the construction SMEs' contribution to economic growth:

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
15a.	There is a discrepancy between the skills needed by the construction sector with what is available in the labour market.	☐	☐	☐	☐	☐

15b.	Construction SMEs struggle to recruit people with relevant expertise.	☐	☐	☐	☐	☐
15c.	Skills shortages in the construction sector affects the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐
15d.	The construction SMEs failure to provide training and development of workers causes skills shortages in the SME construction sector.	☐	☐	☐	☐	☐

21 Please indicate to what extent the following factors, in terms of financial barriers affect the construction SMEs' contribution to economic growth:

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
16a.	Lack of access to loans from financial institutions affect the construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
16b.	Collateral security requirements of accessing finance from lending institutions affect the construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
16c.	High interest rates charged on loans by creditors affect construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
16d.	Inability to obtain credit facilities from suppliers affect construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐

22 Please indicate to what extent the following factors, in terms of technology infrastructure affect the construction SMEs' contribution to economic growth:

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
17a.	Lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth.	☐	☐	☐	☐	☐
17b.	High technological costs make it difficult for construction SMEs to improve performance to contribute to economic growth.	☐	☐	☐	☐	☐
17c.	Failure to adopt up-to-date technology affect the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐
17d.	Rapid technological changes affect the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐

23 Please indicate to what extent the following factors, in terms of organisational support affect the performance of construction SMEs:

	Statement	1	2	3	4	5

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
18a.	Lack of timeous supply of material on site affect the performance of construction SMEs' projects.	☐	☐	☐	☐	☐
18b.	Lack of financial resources affect the performance of construction SMEs.	☐	☐	☐	☐	☐
18c.	Lack of equipment affects the performance of construction SMEs to execute projects.	☐	☐	☐	☐	☐
18d.	Lack of experienced key personnel on a construction project affects the performance of construction SMEs.	☐	☐	☐	☐	☐
18e.	Shortage of available suitably qualified employees affect the performance of a construction SMEs.	☐	☐	☐	☐	☐
18f.	High prices of required materials by suppliers affect the profit margins of construction SMEs.	☐	☐	☐	☐	☐
18g.	Lack of support from shareholders and/or board of directors influence the performance of construction SMEs.	☐	☐	☐	☐	☐
18h.	Lack of adoption of subcontracting strategy affects the growth of construction SMEs.	☐	☐	☐	☐	☐

24 **Please indicate to what extent the following factors, in terms of <u>access to the market</u> affect the construction SMEs contribution to economic growth in the Eastern Cape Province:**

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
19a.	The poor economy in the Eastern Cape results in the government having less construction SME projects in the Eastern Cape.	☐	☐	☐	☐	☐
19b.	Lack of construction SME projects in the Eastern Cape affects the construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
19c.	Inability to provide securities for lending or borrowing purposes affect construction SMEs in obtaining construction projects.	☐	☐	☐	☐	☐
19d.	Inability to obtain insurances for lending or borrowing purposes affect construction SMEs in obtaining construction projects.	☐	☐	☐	☐	☐
19e.	Lack of governmental support to prioritise construction SMEs on tenders affects construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
19f.	Lack of required expertise to execute some construction SME projects affect construction SMEs in acquiring additional projects.	☐	☐	☐	☐	☐
19g.	Lack of business diversification affects the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐
19h.	Lack of adoption of joint venture strategies affect the performance of construction SMEs contribution to economic growth.	☐	☐	☐	☐	☐
19i.	Lack of interest to expand to other provinces affect the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐

25 Please indicate to what extent the following factors, in terms of <u>delays in payment</u> affect the construction SMEs' contribution to economic growth:

	Statement	1 Strongly agree	2 Agree	3 Neutral	4 Disagree	5 Strongly disagree
20a.	Delays in payment by government departments affect construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
20b.	Delays in payment by the private sector affect construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
20c.	Delays in payment by the community and/or private individuals affect construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
20d.	Lack of payment monitoring systems by construction SMEs affect the construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
20e.	Extended debtor payment processes for completed works affect the construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐

26 Please indicate to what extent following factors, in terms of <u>networking resources</u> affect the construction SMEs' contribution to economic growth:

	Statement	1 Strongly agree	2 Agree	3 Neutral	4 Disagree	5 Strongly disagree
21a.	Lack of business networks with formal professionals to source new business ideas affect construction SMEs contribution to economic growth.	☐	☐	☐	☐	☐
21b.	The inability to communicate with construction stakeholders affects construction SMEs contribution to economic growth.	☐	☐	☐	☐	☐
21c.	The unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas affect construction SMEs contribution to economic growth.	☐	☐	☐	☐	☐
21d.	Construction SMEs failure to use social media as a business marketing strategy affects construction SMEs contribution to economic growth.	☐	☐	☐	☐	☐
21e	Inability to form networks in the business community to gain more ideas on business growth affects construction SMEs contribution to economic growth.	☐	☐	☐	☐	☐

27 Please indicate to what extent the following factors, in terms of <u>social barriers</u> affect the performance of construction SMEs:

	Statement	1 Strongly agree	2 Agree	3 Neutral	4 Disagree	5 Strongly disagree
22a.	Lack of societal trust in the quality of services provided by	☐	☐	☐	☐	☐

	construction SMEs affect their performance.					
22b.	Lack of support from construction industry development board (CIDB) affect the performance of construction SMEs.	☐	☐	☐	☐	☐
22c.	Lack of support from business consultancy services affect the performance of construction SMEs.	☐	☐	☐	☐	☐
22d.	Lack of support from local communities affect the performance of construction SMEs.	☐	☐	☐	☐	☐
22e.	Lack of support from business associations in mentoring construction SMEs affect their performance.	☐	☐	☐	☐	☐
22f.	Religious differences make the community source construction SMEs from other provinces which affect the performance of local construction SMEs.	☐	☐	☐	☐	☐
22g.	Cultural differences make the community source construction SMEs from other provinces which affect the performance of local construction SMEs.	☐	☐	☐	☐	☐

28 Please indicate to what extent <u>government institutions</u> affect the contribution of construction SMEs to economic growth:

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
23a.	Unethical practises by government officials result in wasted tender expenses for construction SMEs, which affect their contribution to economic growth.	☐	☐	☐	☐	☐
23b.	Demands for bribes by government officials affect the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐
23c.	Favouritism by government officials in the adjudication of construction projects affects the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐

29 Please indicate to what extent the following <u>regulatory factors</u> affect the contribution of construction SMEs to economic growth:

	Statement	1	2	3	4	5
		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
24a.	Lack of government policy support affects the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐
24b.	Business registration costs affect the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐
24c.	Business licencing costs affect the contribution of construction SMEs from obtaining government SME projects.	☐	☐	☐	☐	☐
24d.	High SARS monthly tariffs affect the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐
24e.	Lack of clarity of tax policies affect the contribution of construction SMEs to economic growth.	☐	☐	☐	☐	☐
24f.	Public procurement regulations affect the of construction SMEs'	☐	☐	☐	☐	☐

	contribution to economic growth.					
24g.	Too many South African SME regulations affect the construction SMEs' contribution to economic growth.	☐	☐	☐	☐	☐
24h.	Non-compliance with government regulations cause construction SMEs to fail, which affects contribution to economic growth.	☐	☐	☐	☐	☐

Additional information for the qualitative section of the research

30 Please feel free to comment on or add anything which you feel is relevant, which may be affecting your business's success and how it is affected:

_____

_____

_____

_____

_____

INVITATION TO ALSO PARTICIPATE IN AN INTERVIEW

Thank you for your participation!

Plea

Prior to the interview, I will forward you the schedule of interview questions *via* email.

26. Agreement or refusal to participate in an interview:

a.	Yes, I agree to be interviewed.	
b.	No, I do not wish to be interviewed.	

27. As the responses to the questionnaire are anonymous, please record your contact details, if you agree to be interviewed, so that I can contact you:

a.	Email address.	
b.	Telephone number.	
c.	Cellphone number.	
d.	Skype address.	

28. If you agree to be interviewed, please indicate what form of interview you prefer to participate in:

a.	In person, face-to-face.	
b.	Telephonically.	
c.	WhatsApp.	
d.	MS Teams.	

e.	Zoom.	
f.	Skype.	

APPENDIX 6: INTERVIEW SCHEDULE

PARTICIPANT'S INTERVIEW PROTOCOL OR GUIDE

Time of Interview:

Date:

Place:

Interviewer: Lubabalo Flepisi

Interviewee:

Position of Interviewee:

Role of the Interviewee in the organisation:

The focus of this study will be to investigate factors influencing the contribution of construction sector SMEs to economic growth in South Africa: case of the Eastern Cape Province.

GENERAL INTRODUCTION

Hello, I am Lubabalo Flepisi, a doctoral student conducting a survey as well as interviews (which can be in person or by telephone, MS Teams, Zoom, face time, or WhatsApp, whichever form of interview suits you best and is more convenient for you) for the completion of my doctoral studies. I am conducting a survey and asking questions about the importance of construction sector; importance of economic growth; factors affecting construction sector contribution to the economic growth in the Eastern Cape Province.

You do not have to answer any questions you do not want to and you can end the interview at any time. The interview takes about 20 minutes to complete and any information you give me will be confidential.

If you have any questions, you can call me on 066 477 6875; or my Supervisor Dr Dr Anna Johanna Catharina Womack on 031 373 5366; or my Co-Supervisor Dr Lawrence Mpele Lekhanya on 031 373 5372; or the DUT Research Ethic Administration on 031 373 2900 to get more information.

Thank you for your participation.

SECTION A: FACTORS INFLUENCNG THE CONTRIBIUTION OF CONSTRUCTION SME FIRMS'

1. What are the most critical aspects found to be characterising your business operations? Please provide broad explanation,

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2. Have you found the government economic developmental growth policy in the Eastern Cape in support to your business? Please elaborate,

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3. Are there any other factors that in your opinion influences your businesses performance? Please discuss,

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4. In your opinion what do you think that need to be done by government, policy makers and private sector to improve the construction SMEs situation? Please suggest,
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5. Do you think there is a need for the integrated model to enhance the support of the construction SMEs? Please elaborate,
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Thank you very much for your participation!

APPENDIX 7: FREQUENCY TEST

Biographical data

Please indicate your gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	197	65.0	65.0	65.0
	Female	106	35.0	35.0	100.0
	Total	303	100.0	100.0	

Please indicate your age group

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	88	29.0	29.4	29.4
	26-45	151	49.8	50.5	79.9
	46-65	59	19.5	19.7	99.7
	Older than 65	1	.3	.3	100.0
	Total	299	98.7	100.0	
Missing	System	4	1.3		
Total		303	100.0		

Please indicate your highest qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary education	38	12.5	12.6	12.6
	Matriculation	56	18.5	18.6	31.2
	Certificate	44	14.5	14.6	45.8
	National Diploma	74	24.4	24.6	70.4
	Post Graduate Diploma	26	8.6	8.6	79.1
	Bachelor of Technology	32	10.6	10.6	89.7
	Post Graduate Degree	12	4.0	4.0	93.7
	Honours Degree	10	3.3	3.3	97.0
	Masters Degree	8	2.6	2.7	99.7
	Others	1	.3	.3	100.0
	Total	301	99.3	100.0	
Missing	System	2	.7		
Total		303	100.0		

Please indicate the type of ownership

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Sole proprietor	13	4.3	4.3	4.3
	Partnership	27	8.9	8.9	13.2
	Private Company	202	66.7	66.7	79.9
	Public Company	12	4.0	4.0	83.8
	Close Corporation	49	16.2	16.2	100.0
	Total	303	100.0	100.0	

Please indicate which type of construction business you would classify your business as

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	General building	112	37.0	37.0	37.0
	Civil Engineering	107	35.3	35.3	72.3
	Mechanical Engineering	25	8.3	8.3	80.5
	Electrical Engineering (Building)	24	7.9	7.9	88.4
	Electrical Engineering (In)	32	10.6	10.6	99.0
	Specialist works (SB to SQ)	1	.3	.3	99.3
	Others	2	.7	.7	100.0
	Total	303	100.0	100.0	

Please indicate the number of years the business has been in existence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5	117	38.6	38.9	38.9
	6-10	139	45.9	46.2	85.0
	11-15	44	14.5	14.6	99.7
	More than 15 years	1	.3	.3	100.0
	Total	301	99.3	100.0	
Missing	System	2	.7		
Total		303	100.0		

What is your current position in the business entity

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Chief Executive Officer	23	7.6	7.6	7.6
	Managing Director	47	15.5	15.6	23.2
	Director of a company	56	18.5	18.5	41.7
	Senior Manager	28	9.2	9.3	51.0
	Manager	53	17.5	17.5	68.5
	Member of a Close Corporation	9	3.0	3.0	71.5
	Owner	71	23.4	23.5	95.0
	Partner	15	5.0	5.0	100.0
	Total	302	99.7	100.0	
Missing	System	1	.3		
Total		303	100.0		

What is the Construction Industry Development Board (CIDB) Grading of your business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Grade 1	65	21.5	21.5	21.5
	Grade 2	74	24.4	24.5	46.0
	Grade 3	84	27.7	27.8	73.8
	Grade 4	54	17.8	17.9	91.7
	Grade 5	13	4.3	4.3	96.0
	Others	12	4.0	4.0	100.0
	Total	302	99.7	100.0	
Missing	System	1	.3		
Total		303	100.0		

How many people does your business employ

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 10	85	28.1	28.1	28.1
	11-20	49	16.2	16.2	44.4
	21-50	77	25.4	25.5	69.9
	51-100	61	20.1	20.2	90.1
	100-200	28	9.2	9.3	99.3
	Others	2	.7	.7	100.0
	Total	302	99.7	100.0	
Missing	System	1	.3		
Total		303	100.0		

What is your business's average annual turnover the last three years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than R200 000	76	25.1	25.4	25.4
	R201 000 to R3 000 000	68	22.4	22.7	48.2
	R3 000 001 to R6 000 000	61	20.1	20.4	68.6
	R6 000 001 to R10 000 000	53	17.5	17.7	86.3
	R10 000 001 to R20 000 000	22	7.3	7.4	93.6
	R20 000 001 to R26 000 000	19	6.3	6.4	100.0
	Total	299	98.7	100.0	
Missing	System	4	1.3		
Total		303	100.0		

Level of education improve the leadership skills of construction SMEs entrepreneurs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	70	23.1	23.1	23.1
	Agree	149	49.2	49.2	72.3
	Neutral	50	16.5	16.5	88.8
	Disagree	19	6.3	6.3	95.0
	Strongly disagree	15	5.0	5.0	100.0
	Total	303	100.0	100.0	

Entrepreneurial training will improve the leadership skills of construction SMEs entrepreneurs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	95	31.4	31.4	31.4
	Agree	115	38.0	38.0	69.3
	Neutral	59	19.5	19.5	88.8
	Disagree	24	7.9	7.9	96.7
	Strongly disagree	10	3.3	3.3	100.0
	Total	303	100.0	100.0	

Level of education will improve the ability of construction SMEs entrepreneurs to be innovative

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	95	31.4	31.4	31.4
	Agree	119	39.3	39.3	70.6
	Neutral	57	18.8	18.8	89.4
	Disagree	25	8.3	8.3	97.7
	Strongly disagree	7	2.3	2.3	100.0
	Total	303	100.0	100.0	

Lack of expertise amongst government officials affect construction SMEs' contribution to economic growth

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	96	31.7	31.7	31.7
	Agree	140	46.2	46.2	77.9
	Neutral	30	9.9	9.9	87.8
	Disagree	21	6.9	6.9	94.7
	Strongly disagree	16	5.3	5.3	100.0
	Total	303	100.0	100.0	

Lack of government policy support for construction SMEs affects construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	104	34.3	34.3	34.3
	Agree	126	41.6	41.6	75.9
	Neutral	35	11.6	11.6	87.5
	Disagree	23	7.6	7.6	95.0
	Strongly disagree	15	5.0	5.0	100.0
	Total	303	100.0	100.0	

Lack of government political will to support construction SMEs affects construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	111	36.6	36.6	36.6
	Agree	121	39.9	39.9	76.6
	Neutral	35	11.6	11.6	88.1
	Disagree	21	6.9	6.9	95.0
	Strongly disagree	15	5.0	5.0	100.0
	Total	303	100.0	100.0	

Lack of government day to day guidelines for SMEs construction firms affects construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	108	35.6	35.6	35.6
	Agree	122	40.3	40.3	75.9
	Neutral	36	11.9	11.9	87.8
	Disagree	21	6.9	6.9	94.7
	Strongly disagree	16	5.3	5.3	100.0
	Total	303	100.0	100.0	

Lack of technical skills workshop or training provided by government institutions affect construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Strongly agree	84	27.7	27.7	27.7
	Agree	141	46.5	46.5	74.3
	Neutral	37	12.2	12.2	86.5
	Disagree	24	7.9	7.9	94.4
	Strongly disagree	17	5.6	5.6	100.0
	Total	303	100.0	100.0	

Lack of government financial assistance for construction SMEs affects construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	79	26.1	26.1	26.1
	Agree	144	47.5	47.5	73.6
	Neutral	36	11.9	11.9	85.5
	Disagree	26	8.6	8.6	94.1
	Strongly disagree	18	5.9	5.9	100.0
	Total	303	100.0	100.0	

Lack of government incubator programme implementation for construction SMEs affects construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	102	33.7	33.7	33.7
	Agree	122	40.3	40.3	73.9
	Neutral	39	12.9	12.9	86.8
	Disagree	23	7.6	7.6	94.4
	Strongly disagree	17	5.6	5.6	100.0
	Total	303	100.0	100.0	

Lack of government budget for construction SME projects affects construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	83	27.4	27.4	27.4
	Agree	139	45.9	45.9	73.3
	Neutral	39	12.9	12.9	86.1

	Disagree	26	8.6	8.6	94.7
	Strongly disagree	16	5.3	5.3	100.0
	Total	303	100.0	100.0	

Incapacity to spend funds received for construction SME projects affects construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	104	34.3	34.3	34.3
	Agree	119	39.3	39.3	73.6
	Neutral	38	12.5	12.5	86.1
	Disagree	23	7.6	7.6	93.7
	Strongly disagree	19	6.3	6.3	100.0
	Total	303	100.0	100.0	

Poor record keeping by construction SMEs affect their opportunities to obtain credit from financial agencies.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	126	41.6	41.6	41.6
	Agree	123	40.6	40.6	82.2
	Neutral	26	8.6	8.6	90.8
	Disagree	14	4.6	4.6	95.4
	Strongly disagree	14	4.6	4.6	100.0
	Total	303	100.0	100.0	

Lack of monitoring operational activities affect the performance of the construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	130	42.9	42.9	42.9
	Agree	119	39.3	39.3	82.2
	Neutral	27	8.9	8.9	91.1
	Disagree	14	4.6	4.6	95.7
	Strongly disagree	13	4.3	4.3	100.0
	Total	303	100.0	100.0	

Lack of managerial controls of the daily operation of the construction SMEs affect their performance.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	129	42.6	42.6	42.6
	Agree	122	40.3	40.3	82.8
	Neutral	25	8.3	8.3	91.1
	Disagree	15	5.0	5.0	96.0
	Strongly disagree	12	4.0	4.0	100.0
	Total	303	100.0	100.0	

Lack of financially managing business funds affects the performance of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	124	40.9	40.9	40.9
	Agree	125	41.3	41.3	82.2
	Neutral	27	8.9	8.9	91.1
	Disagree	16	5.3	5.3	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Lack of marketing tools affects the performance of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	139	45.9	45.9	45.9
	Agree	110	36.3	36.3	82.2
	Neutral	25	8.3	8.3	90.4
	Disagree	14	4.6	4.6	95.0
	Strongly disagree	15	5.0	5.0	100.0
	Total	303	100.0	100.0	

Lack of collaboration with local companies affects the performance of construction SMEs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	129	42.6	42.6	42.6

	Agree	122	40.3	40.3	82.8
	Neutral	23	7.6	7.6	90.4
	Disagree	15	5.0	5.0	95.4
	Strongly disagree	14	4.6	4.6	100.0
	Total	303	100.0	100.0	

Competition in construction sector affect the performance of construction SMEs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	127	41.9	41.9	41.9
	Agree	123	40.6	40.6	82.5
	Neutral	25	8.3	8.3	90.8
	Disagree	14	4.6	4.6	95.4
	Strongly disagree	14	4.6	4.6	100.0
	Total	303	100.0	100.0	

Lack of internal auditing by construction SMEs affect their performances

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	127	41.9	41.9	41.9
	Agree	125	41.3	41.3	83.2
	Neutral	21	6.9	6.9	90.1
	Disagree	16	5.3	5.3	95.4
	Strongly disagree	14	4.6	4.6	100.0
	Total	303	100.0	100.0	

Lack of investment by construction SMEs affect their business growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	130	42.9	42.9	42.9
	Agree	120	39.6	39.6	82.5
	Neutral	25	8.3	8.3	90.8
	Disagree	13	4.3	4.3	95.0
	Strongly disagree	15	5.0	5.0	100.0

	Total	303	100.0	100.0	

Lack of innovative behaviour affects the performance of construction SMEs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	133	43.9	43.9	43.9
	Agree	135	44.6	44.6	88.4
	Neutral	13	4.3	4.3	92.7
	Disagree	12	4.0	4.0	96.7
	Strongly disagree	10	3.3	3.3	100.0
	Total	303	100.0	100.0	

Lack of proactive behaviour affects the performance of construction SMEs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	120	39.6	39.6	39.6
	Agree	144	47.5	47.5	87.1
	Neutral	17	5.6	5.6	92.7
	Disagree	12	4.0	4.0	96.7
	Strongly disagree	10	3.3	3.3	100.0
	Total	303	100.0	100.0	

Lack of risk-taking behaviour affects the performance of construction SMEs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	129	42.6	42.6	42.6
	Agree	135	44.6	44.6	87.1
	Neutral	16	5.3	5.3	92.4
	Disagree	13	4.3	4.3	96.7
	Strongly disagree	10	3.3	3.3	100.0
	Total	303	100.0	100.0	

Lack of technical skills affects the performance of construction SMEs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	124	40.9	40.9	40.9
	Agree	142	46.9	46.9	87.8
	Neutral	15	5.0	5.0	92.7
	Disagree	11	3.6	3.6	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Lack of contractual skills affects the performance of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	126	41.6	41.6	41.6
	Agree	138	45.5	45.5	87.1
	Neutral	16	5.3	5.3	92.4
	Disagree	13	4.3	4.3	96.7
	Strongly disagree	10	3.3	3.3	100.0
	Total	303	100.0	100.0	

Lack of leadership abilities affects the performance of construction SMEs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	138	45.5	45.5	45.5
	Agree	130	42.9	42.9	88.4
	Neutral	15	5.0	5.0	93.4
	Disagree	9	3.0	3.0	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Failure to set clear strategic goals for growth affect the performance of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Strongly agree	115	38.0	38.0	38.0
	Agree	151	49.8	49.8	87.8
	Neutral	15	5.0	5.0	92.7
	Disagree	9	3.0	3.0	95.7
	Strongly disagree	13	4.3	4.3	100.0
	Total	303	100.0	100.0	

There is a discrepancy between the skills needed by the construction sector with what is available in the labour market

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	132	43.6	43.6	43.6
	Agree	137	45.2	45.2	88.8
	Neutral	16	5.3	5.3	94.1
	Disagree	9	3.0	3.0	97.0
	Strongly disagree	9	3.0	3.0	100.0
	Total	303	100.0	100.0	

Construction SMEs struggle to recruit people with relevant expertise.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	125	41.3	41.3	41.3
	Agree	140	46.2	46.2	87.5
	Neutral	16	5.3	5.3	92.7
	Disagree	11	3.6	3.6	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Skills shortages in the construction sector affects the contribution of construction SMEs to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	144	47.5	47.5	47.5
	Agree	123	40.6	40.6	88.1
	Neutral	14	4.6	4.6	92.7
	Disagree	13	4.3	4.3	97.0

	Strongly disagree	9	3.0	3.0	100.0
	Total	303	100.0	100.0	

The construction SMEs failure to provide training and development of workers causes skills shortages in the SME construction sector

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	123	40.6	40.6	40.6
	Agree	142	46.9	46.9	87.5
	Neutral	16	5.3	5.3	92.7
	Disagree	10	3.3	3.3	96.0
	Strongly disagree	12	4.0	4.0	100.0
	Total	303	100.0	100.0	

Lack of access to loans from financial institutions affect the construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	130	42.9	42.9	42.9
	Agree	140	46.2	46.2	89.1
	Neutral	12	4.0	4.0	93.1
	Disagree	11	3.6	3.6	96.7
	Strongly disagree	10	3.3	3.3	100.0
	Total	303	100.0	100.0	

Collateral security requirements of accessing finance from lending institutions affect the construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	108	35.6	35.6	35.6
	Agree	156	51.5	51.5	87.1
	Neutral	16	5.3	5.3	92.4
	Disagree	12	4.0	4.0	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

High interest rates charged on loans by creditors affect construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	128	42.2	42.2	42.2
	Agree	139	45.9	45.9	88.1
	Neutral	13	4.3	4.3	92.4
	Disagree	12	4.0	4.0	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Inability to obtain credit facilities from suppliers affect construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	121	39.9	39.9	39.9
	Agree	146	48.2	48.2	88.1
	Neutral	12	4.0	4.0	92.1
	Disagree	14	4.6	4.6	96.7
	Strongly disagree	10	3.3	3.3	100.0
	Total	303	100.0	100.0	

Lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	112	37.0	37.0	37.0
	Agree	162	53.5	53.5	90.4
	Neutral	13	4.3	4.3	94.7
	Disagree	9	3.0	3.0	97.7
	Strongly disagree	7	2.3	2.3	100.0
	Total	303	100.0	100.0	

High technological costs make it difficult for construction SMEs to improve performance to contribute to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	114	37.6	37.6	37.6
	Agree	160	52.8	52.8	90.4
	Neutral	12	4.0	4.0	94.4

	Disagree	10	3.3	3.3	97.7
	Strongly disagree	7	2.3	2.3	100.0
	Total	303	100.0	100.0	

Failure to adopt up-to-date technology affect the contribution of construction SMEs to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	108	35.6	35.6	35.6
	Agree	164	54.1	54.1	89.8
	Neutral	15	5.0	5.0	94.7
	Disagree	9	3.0	3.0	97.7
	Strongly disagree	7	2.3	2.3	100.0
	Total	303	100.0	100.0	

Rapid technological changes affect the contribution of construction SMEs to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	108	35.6	35.6	35.6
	Agree	161	53.1	53.1	88.8
	Neutral	16	5.3	5.3	94.1
	Disagree	11	3.6	3.6	97.7
	Strongly disagree	7	2.3	2.3	100.0
	Total	303	100.0	100.0	

Lack of timeous supply of material on site affect the performance of construction SMEs' projects.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	125	41.3	41.3	41.3
	Agree	151	49.8	49.8	91.1
	Neutral	12	4.0	4.0	95.0
	Disagree	8	2.6	2.6	97.7
	Strongly disagree	7	2.3	2.3	100.0
	Total	303	100.0	100.0	

Lack of financial resources affect the performance of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	128	42.2	42.2	42.2
	Agree	148	48.8	48.8	91.1
	Neutral	12	4.0	4.0	95.0
	Disagree	8	2.6	2.6	97.7
	Strongly disagree	7	2.3	2.3	100.0
	Total	303	100.0	100.0	

Lack of equipment affects the performance of construction SMEs to execute projects.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	118	38.9	38.9	38.9
	Agree	159	52.5	52.5	91.4
	Neutral	11	3.6	3.6	95.0
	Disagree	8	2.6	2.6	97.7
	Strongly disagree	7	2.3	2.3	100.0
	Total	303	100.0	100.0	

Lack of experienced key personnel on a construction project affects the performance of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	120	39.6	39.6	39.6
	Agree	156	51.5	51.5	91.1
	Neutral	11	3.6	3.6	94.7
	Disagree	8	2.6	2.6	97.4
	Strongly disagree	8	2.6	2.6	100.0
	Total	303	100.0	100.0	

Shortage of available suitably qualified employees affect the performance of a construction SMEs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	118	38.9	38.9	38.9
	Agree	156	51.5	51.5	90.4
	Neutral	13	4.3	4.3	94.7
	Disagree	7	2.3	2.3	97.0
	Strongly disagree	9	3.0	3.0	100.0
	Total	303	100.0	100.0	

High prices of required materials by suppliers affect the profit margins of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	135	44.6	44.6	44.6
	Agree	141	46.5	46.5	91.1
	Neutral	11	3.6	3.6	94.7
	Disagree	7	2.3	2.3	97.0
	Strongly disagree	9	3.0	3.0	100.0
	Total	303	100.0	100.0	

Lack of support from shareholders and/or board of directors influence the performance of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	116	38.3	38.3	38.3
	Agree	156	51.5	51.5	89.8
	Neutral	15	5.0	5.0	94.7
	Disagree	9	3.0	3.0	97.7
	Strongly disagree	7	2.3	2.3	100.0
	Total	303	100.0	100.0	

Lack of adoption of subcontracting strategy affects the growth of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	117	38.6	38.6	38.6
	Agree	157	51.8	51.8	90.4
	Neutral	14	4.6	4.6	95.0
	Disagree	6	2.0	2.0	97.0
	Strongly disagree	9	3.0	3.0	100.0
	Total	303	100.0	100.0	

The poor economy in the Eastern Cape results in the government having less construction SME projects in the Eastern Cape

		Frequency	Percent	Valid Percent	Cumulative Percent

Valid	Strongly agree	116	38.3	38.3	38.3
	Agree	149	49.2	49.2	87.5
	Neutral	16	5.3	5.3	92.7
	Disagree	10	3.3	3.3	96.0
	Strongly disagree	12	4.0	4.0	100.0
	Total	303	100.0	100.0	

Lack of construction SME projects in the Eastern Cape affects the construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	124	40.9	40.9	40.9
	Agree	140	46.2	46.2	87.1
	Neutral	18	5.9	5.9	93.1
	Disagree	10	3.3	3.3	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Inability to provide securities for lending or borrowing purposes affect construction SMEs in obtaining construction projects.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	116	38.3	38.3	38.3
	Agree	147	48.5	48.5	86.8
	Neutral	17	5.6	5.6	92.4
	Disagree	11	3.6	3.6	96.0
	Strongly disagree	12	4.0	4.0	100.0
	Total	303	100.0	100.0	

Inability to obtain insurances for lending or borrowing purposes affect construction SMEs in obtaining construction projects

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	114	37.6	37.6	37.6
	Agree	150	49.5	49.5	87.1
	Neutral	16	5.3	5.3	92.4

	Disagree	12	4.0	4.0	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Lack of governmental support to prioritise construction SMEs on tenders affects construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	130	42.9	42.9	42.9
	Agree	135	44.6	44.6	87.5
	Neutral	16	5.3	5.3	92.7
	Disagree	11	3.6	3.6	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Lack of required expertise to execute some construction SME projects affect construction SMEs in acquiring additional projects.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	118	38.9	38.9	38.9
	Agree	146	48.2	48.2	87.1
	Neutral	16	5.3	5.3	92.4
	Disagree	11	3.6	3.6	96.0
	Strongly disagree	12	4.0	4.0	100.0
	Total	303	100.0	100.0	

Lack of business diversification affects the contribution of construction SMEs to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	109	36.0	36.0	36.0
	Agree	154	50.8	50.8	86.8
	Neutral	17	5.6	5.6	92.4
	Disagree	11	3.6	3.6	96.0
	Strongly disagree	12	4.0	4.0	100.0
	Total	303	100.0	100.0	

Lack of adoption of joint venture strategies affect the performance of construction SMEs contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	106	35.0	35.0	35.0
	Agree	156	51.5	51.5	86.5
	Neutral	17	5.6	5.6	92.1
	Disagree	13	4.3	4.3	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Lack of interest to expand to other provinces affect the contribution of construction SMEs to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	120	39.6	39.6	39.6
	Agree	145	47.9	47.9	87.5
	Neutral	16	5.3	5.3	92.7
	Disagree	10	3.3	3.3	96.0
	Strongly disagree	12	4.0	4.0	100.0
	Total	303	100.0	100.0	

Delays in payment by government departments affect construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	127	41.9	41.9	41.9
	Agree	144	47.5	47.5	89.4
	Neutral	11	3.6	3.6	93.1
	Disagree	10	3.3	3.3	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Delays in payment by the private sector affect construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	120	39.6	39.6	39.6
	Agree	151	49.8	49.8	89.4

	Neutral	12	4.0	4.0	93.4
	Disagree	11	3.6	3.6	97.0
	Strongly disagree	9	3.0	3.0	100.0
	Total	303	100.0	100.0	

Delays in payment by the community and/or private individuals affect construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	113	37.3	37.3	37.3
	Agree	138	45.5	45.5	82.8
	Neutral	27	8.9	8.9	91.7
	Disagree	15	5.0	5.0	96.7
	Strongly disagree	10	3.3	3.3	100.0
	Total	303	100.0	100.0	

Lack of payment monitoring systems by construction SMEs affect the construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	124	40.9	40.9	40.9
	Agree	152	50.2	50.2	91.1
	Neutral	9	3.0	3.0	94.1
	Disagree	10	3.3	3.3	97.4
	Strongly disagree	8	2.6	2.6	100.0
	Total	303	100.0	100.0	

Extended debtor payment processes for completed works affect the construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	123	40.6	40.6	40.6
	Agree	151	49.8	49.8	90.4
	Neutral	9	3.0	3.0	93.4
	Disagree	10	3.3	3.3	96.7
	Strongly disagree	10	3.3	3.3	100.0
	Total	303	100.0	100.0	

Lack of business networks with formal professionals to source new business ideas affect construction SMEs contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	117	38.6	38.6	38.6
	Agree	154	50.8	50.8	89.4
	Neutral	13	4.3	4.3	93.7
	Disagree	8	2.6	2.6	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

The inability to communicate with construction stakeholders affects construction SMEs contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	115	38.0	38.0	38.0
	Agree	151	49.8	49.8	87.8
	Neutral	18	5.9	5.9	93.7
	Disagree	8	2.6	2.6	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

The unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas affect construction SMEs contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	113	37.3	37.3	37.3
	Agree	156	51.5	51.5	88.8
	Neutral	15	5.0	5.0	93.7
	Disagree	10	3.3	3.3	97.0
	Strongly disagree	9	3.0	3.0	100.0
	Total	303	100.0	100.0	

Construction SMEs failure to use social media as a business marketing strategy affects construction SMEs contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	105	34.7	34.7	34.7
	Agree	153	50.5	50.5	85.1
	Neutral	18	5.9	5.9	91.1
	Disagree	15	5.0	5.0	96.0
	Strongly disagree	12	4.0	4.0	100.0
	Total	303	100.0	100.0	

Inability to form networks in the business community to gain more ideas on business growth affects construction SMEs contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	112	37.0	37.0	37.0
	Agree	158	52.1	52.1	89.1
	Neutral	13	4.3	4.3	93.4
	Disagree	9	3.0	3.0	96.4
	Strongly disagree	11	3.6	3.6	100.0
	Total	303	100.0	100.0	

Lack of societal trust in the quality of services provided by construction SMEs affect their performance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	116	38.3	38.3	38.3
	Agree	138	45.5	45.5	83.8
	Neutral	20	6.6	6.6	90.4
	Disagree	10	3.3	3.3	93.7
	Strongly disagree	19	6.3	6.3	100.0
	Total	303	100.0	100.0	

Lack of support from construction industry development board (CIDB) affect the performance of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	118	38.9	38.9	38.9
	Agree	142	46.9	46.9	85.8
	Neutral	16	5.3	5.3	91.1

	Disagree	12	4.0	4.0	95.0
	Strongly disagree	15	5.0	5.0	100.0
	Total	303	100.0	100.0	

Lack of support from business consultancy services affect the performance of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	93	30.7	30.7	30.7
	Agree	159	52.5	52.5	83.2
	Neutral	22	7.3	7.3	90.4
	Disagree	14	4.6	4.6	95.0
	Strongly disagree	15	5.0	5.0	100.0
	Total	303	100.0	100.0	

Lack of support from local communities affect the performance of construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	104	34.3	34.3	34.3
	Agree	151	49.8	49.8	84.2
	Neutral	22	7.3	7.3	91.4
	Disagree	11	3.6	3.6	95.0
	Strongly disagree	15	5.0	5.0	100.0
	Total	303	100.0	100.0	

Lack of support from business associations in mentoring construction SMEs affect their performance.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	98	32.3	32.3	32.3
	Agree	155	51.2	51.2	83.5
	Neutral	21	6.9	6.9	90.4
	Disagree	17	5.6	5.6	96.0
	Strongly disagree	12	4.0	4.0	100.0
	Total	303	100.0	100.0	

Religious differences make the community source construction SMEs from other provinces which affect the performance of local construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	81	26.7	26.7	26.7
	Agree	156	51.5	51.5	78.2
	Neutral	32	10.6	10.6	88.8
	Disagree	21	6.9	6.9	95.7
	Strongly disagree	13	4.3	4.3	100.0
	Total	303	100.0	100.0	

Cultural differences make the community source construction SMEs from other provinces which affect the performance of local construction SMEs.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	84	27.7	27.7	27.7
	Agree	158	52.1	52.1	79.9
	Neutral	23	7.6	7.6	87.5
	Disagree	19	6.3	6.3	93.7
	Strongly disagree	19	6.3	6.3	100.0
	Total	303	100.0	100.0	

Unethical practises by government officials result in wasted tender expenses for construction SMEs, which affect their contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	112	37.0	37.0	37.0
	Agree	141	46.5	46.5	83.5
	Neutral	17	5.6	5.6	89.1
	Disagree	16	5.3	5.3	94.4
	Strongly disagree	17	5.6	5.6	100.0
	Total	303	100.0	100.0	

Demands for bribes by government officials affect the contribution of construction SMEs to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	106	35.0	35.0	35.0

	Agree	149	49.2	49.2	84.2
	Neutral	15	5.0	5.0	89.1
	Disagree	15	5.0	5.0	94.1
	Strongly disagree	18	5.9	5.9	100.0
	Total	303	100.0	100.0	

Favouritism by government officials in the adjudication of construction projects affects the contribution of construction SMEs to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	108	35.6	35.6	35.6
	Agree	145	47.9	47.9	83.5
	Neutral	17	5.6	5.6	89.1
	Disagree	16	5.3	5.3	94.4
	Strongly disagree	17	5.6	5.6	100.0
	Total	303	100.0	100.0	

Lack of government policy support affects the contribution of construction SMEs to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	123	40.6	40.6	40.6
	Agree	145	47.9	47.9	88.4
	Neutral	12	4.0	4.0	92.4
	Disagree	8	2.6	2.6	95.0
	Strongly disagree	15	5.0	5.0	100.0
	Total	303	100.0	100.0	

Business registration costs affect the contribution of construction SMEs to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	118	38.9	38.9	38.9
	Agree	150	49.5	49.5	88.4
	Neutral	12	4.0	4.0	92.4
	Disagree	9	3.0	3.0	95.4
	Strongly disagree	14	4.6	4.6	100.0
	Total	303	100.0	100.0	

Business licencing costs affect the contribution of construction SMEs from obtaining government SME projects

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	124	40.9	40.9	40.9
	Agree	144	47.5	47.5	88.4
	Neutral	11	3.6	3.6	92.1
	Disagree	11	3.6	3.6	95.7
	Strongly disagree	13	4.3	4.3	100.0
	Total	303	100.0	100.0	

High SARS monthly tariffs affect the contribution of construction SMEs to economic growth

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	133	43.9	43.9	43.9
	Agree	135	44.6	44.6	88.4
	Neutral	11	3.6	3.6	92.1
	Disagree	11	3.6	3.6	95.7
	Strongly disagree	13	4.3	4.3	100.0
	Total	303	100.0	100.0	

Lack of clarity of tax policies affect the contribution of construction SMEs to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	116	38.3	38.3	38.3
	Agree	152	50.2	50.2	88.4
	Neutral	12	4.0	4.0	92.4
	Disagree	9	3.0	3.0	95.4
	Strongly disagree	14	4.6	4.6	100.0
	Total	303	100.0	100.0	

Public procurement regulations affect the of construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	126	41.6	41.6	41.6

	Agree	142	46.9	46.9	88.4
	Neutral	13	4.3	4.3	92.7
	Disagree	7	2.3	2.3	95.0
	Strongly disagree	15	5.0	5.0	100.0
	Total	303	100.0	100.0	

Too many South African SME regulations affect the construction SMEs' contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	126	41.6	41.6	41.6
	Agree	144	47.5	47.5	89.1
	Neutral	11	3.6	3.6	92.7
	Disagree	8	2.6	2.6	95.4
	Strongly disagree	14	4.6	4.6	100.0
	Total	303	100.0	100.0	

Non-compliance with government regulations cause construction SMEs to fail, which affects contribution to economic growth.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	131	43.2	43.2	43.2
	Agree	137	45.2	45.2	88.4
	Neutral	14	4.6	4.6	93.1
	Disagree	8	2.6	2.6	95.7
	Strongly disagree	13	4.3	4.3	100.0
	Total	303	100.0	100.0	

APPENDIX 8: CHI-SQUARE TEST

Test Statistics

Level of education improve the leadership skills of construction SMEs entrepreneurs

Chi-Square	195.135[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

Entrepreneurial training will improve the leadership skills of construction SMEs entrepreneurs

Chi-Square	132.759[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

Level of education will improve the ability of construction SMEs entrepreneurs to be innovative

Chi-Square	144.343[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

Lack of expertise amongst government officials affect construction SMEs' contribution to economic growth

Chi-Square	198.865[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of government policy support for construction SMEs affects construction SMEs' contribution to economic growth.
Chi-Square	170.119[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of government political will to support construction SMEs affects construction SMEs' contribution to economic growth.
Chi-Square	173.122[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of government day to day guidelines for SMEs construction firms affects construction SMEs' contribution to economic growth.
Chi-Square	167.974[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of technical skills workshop or training provided by government institutions affect construction SMEs' contribution to economic growth.
Chi-Square	178.370[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of government financial assistance for construction SMEs affects construction SMEs' contribution to economic growth.
Chi-Square	180.053[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of government incubator programme implementation for construction SMEs affects construction SMEs' contribution to economic growth.
Chi-Square	152.891[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of government budget for construction SME projects affects construction SMEs' contribution to economic growth.
Chi-Square	169.987[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Incapacity to spend funds received for construction SME projects affects construction SMEs' contribution to economic growth.
Chi-Square	147.677[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Poor record keeping by construction SMEs affect their opportunities to obtain credit from financial agencies.
Chi-Square	226.257[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of monitoring operational activities affect the performance of the construction SMEs.
Chi-Square	227.611[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of managerial controls of the daily operation of the construction SMEs affect their performance.
Chi-Square	233.617[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of financially managing business funds affects the performance of construction SMEs.
Chi-Square	226.818[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of marketing tools affects the performance of construction SMEs.
Chi-Square	232.759[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of collaboration with local companies affects the performance of construction SMEs
Chi-Square	232.891[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Competition in construction sector affect the performance of construction SMEs
Chi-Square	229.591[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of internal auditing by construction SMEs affect their performances
Chi-Square	235.729[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of investment by construction SMEs affect their business growth.
Chi-Square	230.317[a]

df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of innovative behaviour affects the performance of construction SMEs
Chi-Square	296.455[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of proactive behaviour affects the performance of construction SMEs
Chi-Square	285.597[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of risk-taking behaviour affects the performance of construction SMEs
Chi-Square	281.010[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of technical skills affects the performance of construction SMEs
Chi-Square	291.175[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of contractual skills affects the performance of construction SMEs.
Chi-Square	281.901[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of leadership abilities affects the performance of construction SMEs
Chi-Square	297.182[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Failure to set clear strategic goals for growth affect the performance of construction SMEs.
Chi-Square	299.327[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	There is a discrepancy between the skills needed by the construction sector with what is available in the labour market
Chi-Square	301.142[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Construction SMEs struggle to recruit people with relevant expertise.
Chi-Square	286.488[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Skills shortages in the construction sector affects the contribution of construction SMEs to economic growth.
Chi-Square	296.191[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	The construction SMEs failure to provide training and development of workers causes skills shortages in the SME construction sector
Chi-Square	287.644[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of access to loans from financial institutions affect the construction SMEs' contribution to economic growth.
Chi-Square	305.333[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Collateral security requirements of accessing finance from lending institutions affect the construction SMEs' contribution to economic growth.
Chi-Square	299.657[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	High interest rates charged on loans by creditors affect construction SMEs' contribution to economic growth.
Chi-Square	293.353[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Inability to obtain credit facilities from suppliers affect construction SMEs' contribution to economic growth.
Chi-Square	297.611[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth.
Chi-Square	342.000[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	High technological costs make it difficult for construction SMEs to improve performance to contribute to economic growth.
Chi-Square	338.733[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Failure to adopt up-to-date technology affect the contribution of construction SMEs to economic growth.
Chi-Square	339.162[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Rapid technological changes affect the contribution of construction SMEs to economic growth.
Chi-Square	324.244[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of timeous supply of material on site affect the performance of construction SMEs' projects.
Chi-Square	335.333[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of financial resources affect the performance of construction SMEs.

Chi-Square	333.056[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of equipment affects the performance of construction SMEs to execute projects.
Chi-Square	347.809[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of experienced key personnel on a construction project affects the performance of construction SMEs.
Chi-Square	340.317[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Shortage of available suitably qualified employees affect the performance of a construction SMEs
Chi-Square	333.287[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	High prices of required materials by suppliers affect the profit margins of construction SMEs.
Chi-Square	329.954[a]
df	4

Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of support from shareholders and/or board of directors influence the performance of construction SMEs.
Chi-Square	326.488[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of adoption of subcontracting strategy affects the growth of construction SMEs.
Chi-Square	334.805[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	The poor economy in the Eastern Cape results in the government having less construction SME projects in the Eastern Cape
Chi-Square	293.650[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of construction SME projects in the Eastern Cape affects the construction SMEs' contribution to economic growth.
Chi-Square	283.155[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Inability to provide securities for lending or borrowing purposes affect construction SMEs in obtaining construction projects.
Chi-Square	284.772[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Inability to obtain insurances for lending or borrowing purposes affect construction SMEs in obtaining construction projects
Chi-Square	291.340[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of governmental support to prioritise construction SMEs on tenders affects construction SMEs' contribution to economic growth.
Chi-Square	284.838[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of required expertise to execute some construction SME projects affect construction SMEs in acquiring additional projects.
Chi-Square	287.116[a]
df	4

Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of business diversification affects the contribution of construction SMEs to economic growth.
Chi-Square	293.551[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of adoption of joint venture strategies affect the performance of construction SMEs contribution to economic growth.
Chi-Square	293.551[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of interest to expand to other provinces affect the contribution of construction SMEs to economic growth.
Chi-Square	289.822[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Delays in payment by government departments affect construction SMEs' contribution to economic growth.
Chi-Square	310.977[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Delays in payment by the private sector affect construction SMEs' contribution to economic growth.
Chi-Square	316.587[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Delays in payment by the community and/or private individuals affect construction SMEs' contribution to economic growth.
Chi-Square	239.360[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of payment monitoring systems by construction SMEs affect the construction SMEs' contribution to economic growth.
Chi-Square	336.026[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Extended debtor payment processes for completed works affect the construction SMEs' contribution to economic growth.
Chi-Square	327.545[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of business networks with formal professionals to source new business ideas affect construction SMEs contribution to economic growth.
Chi-Square	320.086[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	The inability to communicate with construction stakeholders affects construction SMEs contribution to economic growth.
Chi-Square	299.888[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	The unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas affect construction SMEs contribution to economic growth.
Chi-Square	315.993[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Construction SMEs failure to use social media as a business marketing strategy affects construction SMEs contribution to economic growth.
Chi-Square	276.653[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Inability to form networks in the business community to gain more ideas on business growth affects construction SMEs contribution to economic growth.
Chi-Square	322.066[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of societal trust in the quality of services provided by construction SMEs affect their performance
Chi-Square	247.512[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of support from construction industry development board (CIDB) affect the performance of construction SMEs.
Chi-Square	269.822[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of support from business consultancy services affect the performance of construction SMEs.
Chi-Square	271.835[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of support from local communities affect the performance of construction SMEs.
Chi-Square	265.432[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of support from business associations in mentoring construction SMEs affect their performance.
Chi-Square	266.356[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Religious differences make the community source construction SMEs from other provinces which affect the performance of local construction SMEs.
Chi-Square	233.815[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Cultural differences make the community source construction SMEs from other provinces which affect the performance of local construction SMEs.
Chi-Square	246.026[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Unethical practises by government officials result in wasted tender expenses for construction SMEs, which affect their contribution to economic growth.
Chi-Square	245.828[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Demands for bribes by government officials affect the contribution of construction SMEs to economic growth.
Chi-Square	261.538[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Favouritism by government officials in the adjudication of construction projects affects the contribution of construction SMEs to economic growth.
Chi-Square	250.185[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of government policy support affects the contribution of construction SMEs to economic growth.
Chi-Square	300.746[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

Business registration costs affect the contribution of construction SMEs to economic growth.

Chi-Square	305.003[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Business licencing costs affect the contribution of construction SMEs from obtaining government SME projects
Chi-Square	299.690[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	High SARS monthly tariffs affect the contribution of construction SMEs to economic growth
Chi-Square	296.422[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Lack of clarity of tax policies affect the contribution of construction SMEs to economic growth.
Chi-Square	307.248[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Public procurement regulations affect the of construction SMEs' contribution to economic growth.
Chi-Square	299.030[a]
df	4

Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Too many South African SME regulations affect the construction SMEs' contribution to economic growth.
Chi-Square	307.446[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

Test Statistics

	Non-compliance with government regulations cause construction SMEs to fail, which affects contribution to economic growth.
Chi-Square	296.983[a]
df	4
Asymp. Sig.	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 60.6.

APPENDIX 9: FACTOR ANALYSIS

Component Matrix[a]

	Component 1
Level of education improve the leadership skills of construction SMEs entrepreneurs	.847
Entrepreneurial training will improve the leadership skills of construction SMEs entrepreneurs	.798
Level of education will improve the ability of construction SMEs entrepreneurs to be innovative	.831

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of education and training on the performance of construction SMEs loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
Lack of expertise amongst government officials affect construction SMEs' contribution to economic growth	.728
Lack of government policy support for construction SMEs affects construction SMEs' contribution to economic growth.	.780
Lack of government political will to support construction SMEs affects construction SMEs' contribution to economic growth.	.770
Lack of government day to day guidelines for SMEs construction firms affects construction SMEs' contribution to economic growth.	.759
Lack of technical skills workshop or training provided by government institutions affect construction SMEs' contribution to economic growth.	.791
Lack of government financial assistance for construction SMEs affects construction SMEs' contribution to economic growth.	.831
Lack of government incubator programme implementation for construction SMEs affects construction SMEs' contribution to economic growth.	.804
Lack of government budget for construction SME projects affects construction SMEs' contribution to economic growth.	.805
Incapacity to spend funds received for construction SME projects affects construction SMEs' contribution to economic growth.	.742

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on lack of government support affecting the construction SMEs contribution to economic growth loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
Poor record keeping by construction SMEs affect their opportunities to obtain credit from financial agencies.	.785
Lack of monitoring operational activities affect the performance of the construction SMEs.	.813
Lack of managerial controls of the daily operation of the construction SMEs affect their performance.	.862
Lack of financially managing business funds affects the performance of construction SMEs.	.822
Lack of marketing tools affects the performance of construction SMEs.	.836
Lack of collaboration with local companies affects the performance of construction SMEs	.853
Competition in construction sector affect the performance of construction SMEs	.839
Lack of internal auditing by construction SMEs affect their performances	.776
Lack of investment by construction SMEs affect their business growth.	.783

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of business managerial skills on the performance of construction SMEs loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
Lack of innovative behaviour affects the performance of construction SMEs	.789

Lack of proactive behaviour affects the performance of construction SMEs	.780
Lack of risk-taking behaviour affects the performance of construction SMEs	.825
Lack of technical skills affects the performance of construction SMEs	.853
Lack of contractual skills affects the performance of construction SMEs.	.819
Lack of leadership abilities affects the performance of construction SMEs	.810
Failure to set clear strategic goals for growth affect the performance of construction SMEs.	.783

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of entrepreneurial leadership on the performance of construction SMEs loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
There is a discrepancy between the skills needed by the construction sector with what is available in the labour market	.803
Construction SMEs struggle to recruit people with relevant expertise.	.858
Skills shortages in the construction sector affects the contribution of construction SMEs to economic growth.	.852
The construction SMEs failure to provide training and development of workers causes skills shortages in the SME construction sector	.854

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of shortage of skills on the construction SMEs' contribution to economic growth loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
Lack of access to loans from financial institutions affect the construction SMEs' contribution to economic growth.	.912
Collateral security requirements of accessing finance from lending institutions affect the construction SMEs' contribution to economic growth.	.920
High interest rates charged on loans by creditors affect construction SMEs' contribution to economic growth.	.922
Inability to obtain credit facilities from suppliers affect construction SMEs' contribution to economic growth.	.927

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of financial barriers on construction SMEs' contribution to economic growth loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
Lack of expertise in modern construction technology makes it difficult for construction SMEs to contribute to economic growth.	.892
High technological costs make it difficult for construction SMEs to improve performance to contribute to economic growth.	.854
Failure to adopt up-to-date technology affect the contribution of construction SMEs to economic growth.	.886
Rapid technological changes affect the contribution of construction SMEs to economic growth.	.907

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of technology infrastructure on the construction SMEs' contribution to economic growth loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
Lack of timeous supply of material on site affect the performance of construction SMEs' projects.	.889
Lack of financial resources affect the performance of construction SMEs.	.878
Lack of equipment affects the performance of construction SMEs to execute projects.	.863
Lack of experienced key personnel on a construction project affects the performance of construction SMEs.	.839
Shortage of available suitably qualified employees affect the performance of a construction SMEs	.861
High prices of required materials by suppliers affect the profit margins of construction SMEs.	.875
Lack of support from shareholders and/or board of directors influence the performance of construction SMEs.	.836
Lack of adoption of subcontracting strategy affects the growth of construction SMEs.	.847

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of organisational support on the performance of construction SMEs loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1

The poor economy in the Eastern Cape results in the government having less construction SME projects in the Eastern Cape	.885
Lack of construction SME projects in the Eastern Cape affects the construction SMEs' contribution to economic growth.	.873
Inability to provide securities for lending or borrowing purposes affect construction SMEs in obtaining construction projects.	.893
Inability to obtain insurances for lending or borrowing purposes affect construction SMEs in obtaining construction projects	.893
Lack of governmental support to prioritise construction SMEs on tenders affects construction SMEs' contribution to economic growth.	.877
Lack of required expertise to execute some construction SME projects affect construction SMEs in acquiring additional projects.	.888
Lack of business diversification affects the contribution of construction SMEs to economic growth.	.888
Lack of adoption of joint venture strategies affect the performance of construction SMEs contribution to economic growth.	.876
Lack of interest to expand to other provinces affect the contribution of construction SMEs to economic growth.	.882

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of access to the market for the construction SMEs' contribution to economic growth loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
Delays in payment by government departments affect construction SMEs' contribution to economic growth.	.853
Delays in payment by the private sector affect construction SMEs' contribution to economic growth.	.813
Delays in payment by the community and/or private individuals affect construction SMEs' contribution to economic growth.	.739
Lack of payment monitoring systems by construction SMEs affect the construction SMEs' contribution to economic growth.	.883
Extended debtor payment processes for completed works affect the construction SMEs' contribution to economic growth.	.819

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of networking resources on the construction SMEs' contribution to economic growth loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
Lack of business networks with formal professionals to source new business ideas affect construction SMEs contribution to economic growth.	.757
The inability to communicate with construction stakeholders affects construction SMEs contribution to economic growth.	.740
The unwillingness of construction SMEs to attend seminars and workshops to gain more business ideas affect construction SMEs contribution to economic growth.	.789
Construction SMEs failure to use social media as a business marketing strategy affects construction SMEs contribution to economic growth.	.785
Inability to form networks in the business community to gain more ideas on business growth affects construction SMEs contribution to economic growth.	.831

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of delays in payments affecting the construction SMEs' contribution to economic growth loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component

	1
Lack of societal trust in the quality of services provided by construction SMEs affect their performance	.800
Lack of support from construction industry development board (CIDB) affect the performance of construction SMEs.	.813
Lack of support from business consultancy services affect the performance of construction SMEs.	.799
Lack of support from local communities affect the performance of construction SMEs.	.814
Lack of support from business associations in mentoring construction SMEs affect their performance.	.811
Religious differences make the community source construction SMEs from other provinces which affect the performance of local construction SMEs.	.801
Cultural differences make the community source construction SMEs from other provinces which affect the performance of local construction SMEs.	.778

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of social barriers on the performance of construction SMEs loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
Unethical practises by government officials result in wasted tender expenses for construction SMEs, which affect their contribution to economic growth.	.929
Demands for bribes by government officials affect the contribution of construction SMEs to economic growth.	.937
Favouritism by government officials in the adjudication of construction projects affects the contribution of construction SMEs to economic growth.	.912

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of government institutions on the contribution of construction SMEs to economic growth loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

Component Matrix[a]

	Component 1
Lack of government policy support affects the contribution of construction SMEs to economic growth.	.912
Business registration costs affect the contribution of construction SMEs to economic growth.	.893
Business licencing costs affect the contribution of construction SMEs from obtaining government SME projects	.898
High SARS monthly tariffs affect the contribution of construction SMEs to economic growth	.909
Lack of clarity of tax policies affect the contribution of construction SMEs to economic growth.	.883
Public procurement regulations affect the of construction SMEs' contribution to economic growth.	.912
Too many South African SME regulations affect the construction SMEs' contribution to economic growth.	.910
Non-compliance with government regulations cause construction SMEs to fail, which affects contribution to economic growth.	.891

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The statements in this section on influence of regulatory factors on the contribution of construction SMEs to economic growth loaded perfectly along a single component. This emphasise that all the statements in this section achieved the research aim by thoroughly measuring what they were intended to measure.

APPENDIX 10: TURNITIN REPORT

Chapter 1 to Chapter 7.docx

by Lubabalo Flepisi

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APPENDIX 11: EDITOR'S LETTER

Helen Richter
Advanced Editing & Proofreading
editassist2023@gmail.com
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11 April 2024

To whom it may concern

CERTIFICATE OF EDITING & AUTHENTICATION

I have proofread and language edited the PhD thesis titled:

"Factors that influence construction Small and Medium-size Enterprises' contribution to economic growth: evidence from the Eastern Cape, South Africa"

by

Lubabalo Flepisi

To the best of my knowledge, the work remains free of spelling, grammar, structural and stylistic errors and the contents are certified as the authors' own work.

With thanks.

H. S. Richter