



**Assessing The Challenges Affecting Small To Medium Construction Companies In
Maphumulo Local Municipality, KwaZulu-Natal Post Coronavirus Pandemic**

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ABSTRACT

The construction sector has generally played a pivotal role in economic growth, infrastructure project services and skills development. The Covid-19 pandemic had devastating outcomes on the construction industry because of the lockdown imposed by the national government. The inevitable changes from various types of forces in the workplace are creating a fresh context that strategic business leaders are progressively describing as the VUCA environment. Informed by an interpretivism philosophy, this study extracted data from the 12 participants' (Managers of SMMEs in the construction industry) perceptions and experiences within their natural settings (Maphumulo Local Municipality) guided by four presuppositions: a subjectivist epistemology, a relativist ontology, a naturalist methodology, and a balanced axiology. The literature review and Resource Based Theory, Institutional Theory and Social Capital Theory guided this study to highlight various avenues from which the challenges affecting SMMEs in the construction industry in Maphumulo Municipality, KwaZulu Natal post covid-19 were understood and mitigated. In this regard four themes were generated namely, (a) Challenges faced by SMMEs in the construction industry during and post Covid-19 in the Maphumulo Local Municipality; (b) The resilience showed by SMMEs in the ERA of Covid-19 to weather the VUCA Storm or crises; (c) SMMEs managers' agility and adaptive style of managing their company resources during Covid-19; and (d) Various Recovery Strategies Used by SMME Construction Sector Managers to Recover from a VUCA Environment Created by Covid-19. The subsequent findings indicated that challenges included operational restrictions and disrupted supply chain; lack of understanding and expertise; lack of cash flow; and Municipality termination of contracts. Furthermore, the study found that the SMMEs in the construction industry in Maphumulo Municipality maintained resilience during a VUCA environment, through the employment of various resilience measures including management of cash flow, adoption of strategies to enhance supply chain resilience, accessing financial relief packages, using credit cards to supplement business operations, reducing employees, reduction of working hours, looking for cheaper material suppliers, diversification, and collaboration with other businesses to build relationships and networks that can support their growth and development, among others.

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LIST OF ACRONYMS

4IR	-	Fourth Industrial Revolution
CIDB	-	Construction Industry Development Board
COVID-19	-	Coronavirus
FET	-	Further Education and Training
GDP	-	Gross Domestic Product
NEF	-	National Empowerment Fund
NYDA	-	National Youth Development Agency
SACI	-	South African Construction Industry
SAMAF	-	South African Micro-Finance Apex Fund
SEDA	-	Small Enterprise Development Agency
SEFA	-	Small Enterprise Finance Agency
SMME	-	Small Medium and Micro Enterprises
TIA	-	Technology and Innovation Agency
UK	-	United Kingdom
VUCA	-	Volatile Uncertain Complex and Ambiguous

CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

According to Balogun, Ansary and Agumba (2016) and Collier and Page (2009), the construction industry is regarded as a critical sector of the economy, which produces building and civil engineering structures and determines the extent to which investment efforts in the resource-rich country are translated to investment outcomes. In this regard, the construction sector has been seen as a gateway to promote entrepreneurship, precisely construction projects aimed at the development of BEEE. The construction sector has generally played a pivotal role in economic growth, infrastructure project services and skills development (Balogun, Ansary and Agumba, 2016). Accordingly, it has been at the forefront of the absorption of unskilled labour into the economy, and the development of technology and created opportunities for Small, Medium and Micro Enterprises (SMMEs) and well-established companies (Windapo and Cattell, 2013; Construction Industry Development Board [CIDB], 2012). According to the CIDB 2020/2021 Annual Report, the construction sector accounts for 3% of the gross domestic product (GDP), which had decreased from 4% in 2021, and its contribution is relatively small compared to the financial and trade and manufacturing sectors which contribute significantly to the GDP (CIDB, 2022). According to Business Wire (2021), the construction industry has injected an amount of about R83 billion in real prices with a year-on-year decline of R21 billion.

The decline has been attributed mainly to the Covid-19 pandemic, which has had devastating outcomes on the industry, particularly on the SMMEs. Ebekozi et al. (2021), posit that after the covid-19 protocols were lifted, most SMME building contractors have been operating at low capacity due to the challenges in attaining contracts. This is consequently associated with reduced government investment into infrastructure development as the major investor and thus fewer tenders awarded (Amoah and Simpeh, 2021). Exaggerating the COVID-19-related challenges, SMMEs in the construction industry continue to face long-standing challenges in delivering construction projects due to poor project performance which results in delayed delivery and to the

extreme, termination of projects. Moreover, Development policies such as black economic empowerment are to some extent causing overcrowding of the market and increased financial failure for emerging construction companies (Makgoba, 2021). Despite the construction SMMEs contribution to the construction sector and SMMEs in general, they still face challenges which have been detrimental to their development and likely to be exacerbated by the covid-19 disruptions (Makgoba, 2021). It is on this background that this study seeks to highlight the challenges affecting SMMEs in the construction industry at Maphumulo Municipality, KwaZulu Natal post covid-19 and comprehensively look at the resilience of the SMMEs in the construction industry within the VUCA environment from various angles including the management efficiency improvement, use of skills and resources, the impact of government support and legislation, and collaborations at an organizational and community level that have the potential to be advantageous to them.

1.2 PROBLEM STATEMENT OF THE STUDY

The Coronavirus pandemic (later referred to as COVID-19) has wreaked havoc across the globe with undesirable consequences that the world will take years to recover from. According to the Worldometer (2020), in less than a year, the Coronavirus pandemic has claimed over a million lives worldwide. The strict lockdown consequences around the world have had disastrous consequences on the global and local economies as businesses, companies and/or organizations have suffered tremendously. Pamidimukkala and Kermanshachi (2021) note that the lack of leadership and efficient management during the pandemic has resulted in challenges for most companies in dealing with the inevitable changes in the workplace that have been brought about by spontaneous external and internal developments. The inevitable changes from various types of forces in the workplace are creating a fresh context that strategic business leaders are progressively describing as the VUCA environment (Pamidimukkala and Kermanshachi, 2021). The VUCA acronym was coined in the late 1990s and stands for “volatility, uncertainty, complexity, and ambiguity, these are terms that reflect an unstable and fast-changing business world” (Pamidimukkala and Kermanshachi, 2021, p.118).

In response to this VUCA environment, in 2020, the South African Government remarked that most companies and/or organizations had to close doors and devise strategies to continue with production while working remotely (Ebekoziem et al., 2021; CIDB, 2022). According to Michael Viterenwa, Senior Broker in Aon South Africa's Construction & Engineering Broking Centre, the South African government is the biggest investor in the country's construction industry; during the national lockdown was forced to divert infrastructure spending to alleviate the economic and social crisis facing the country cutting the traditional construction industry expenditure by 80% (Ebekoziem et al., 2021). Consequently, the construction industry was brought to a crashing halt. The companies that continued to operate during the lockdown encountered restrictions on construction activity which were imposed under the lockdown protocols (CIDB, 2022). For example, various projects were discontinued, and deadlines were missed with dire business and social consequences. In response to these incredibly tough and uncertain circumstances, most construction companies in South Africa were forced to cut CAPEX by 50% – 60%, retrench workers, minimize work hours and property rentals in industrial and commercial properties are likely to never return to pre-COVID levels as remote working becomes part of the new normal (Businesswire, 2022). Accordingly, the employment provided by the sector tremendously declined when most construction projects were stopped during the covid-19 pandemic with about 259 118 jobs lost the most being from the SMMEs within the sector (CIDB,2021; Businesswire, 2022).

At the current trajectory, South Africa's development agenda is rooted in infrastructure development and investment (CIDB,2021). Investment in capital infrastructure development not only prioritises physical expansion but also accelerates economic growth and entrepreneurship development in the communities. Therefore, reduced investment in capital infrastructure development has further threatened the SMMEs and the construction sector's position as a major contributor to national economic development and empowerment (Ebekoziem et al., 2021). Consequently, these developments have further exaggerated the threat of unemployment, inequality and poverty in a country that has the most unequal society in the world and is characterized by high levels of unemployment among the youth (Ebekoziem et al., 2021). It is upon these premises that this study assumes that the performance of the South African SMME sector is linked to the performance of the economy and the development of society in general. Thus, this assumption has led to the present focus on the challenges affecting SMMEs in the construction industry at Maphumulo Municipality, KwaZulu Natal post covid-19 and a comprehensive look at

their resilience within the VUCA environment from various angles including the management efficiency improvement, use of skills and resources, the impact of government support and legislation, and collaborations at an organizational and community level that have the potential to be advantageous to them. ‘

1.3 AIM OF THE STUDY

This study aims to highlight the challenges affecting SMMEs in the construction industry in Maphumulo Municipality, KwaZulu Natal post covid-19 and comprehensively look at the resilience of the SMMEs in the construction industry within the VUCA environment from various angles including the management efficiency improvement, use of skills and resources, the impact of government support and legislation, and collaborations at an organizational and community level that have the potential to be advantageous to them.

1.4 KEY RESEARCH OBJECTIVES

1. To Identify the Challenges Faced by SMME in The Construction Industry During and Post COVID-19 In the Maphumulo Local Municipality.
2. To Assess the Resilience Capacity Shown by SMMEs in The Era Of COVID-19 To Weather the VUCA Crises.
3. To Explore SMME Construction Sector Managers’ Agility and Adaptive Style for Managing Their Company Resources During COVID-19.
4. To Examine Various Recovery Strategies Used by SMME Construction Sector Managers to Recover from A VUCA Environment Created By COVID-19.

1.5 KEY RESEARCH QUESTIONS

1. What Are the Challenges Faced by SMMEs In the Construction Industry During and Post-COVID-19 In the Maphumulo Local Municipality?
2. What Has Been the Resilience Capacity Shown by SMMEs In the Era Of COVID-19 To Weather the VUCA Crises?
3. What Are SMMEs' Construction Sector Managers 'Agility and Adaptive Styles for Managing Their Company Resources During COVID-19?
4. What Are the Various Recovery Strategies Used by SMME Construction Sector Managers to Recover from A VUCA Environment Created By COVID-19?

1.6 SIGNIFICANCE OF THE STUDY

Extensive literature from South Africa exists regarding the obstacles and difficulties faced by the country's construction industry in terms of its performance, growth, and development. This body of literature includes both older and more recent studies conducted by Windapo and Cattell (2013), Ebekoziem et al. (2021), and Aigbavboa et al. (2021). These studies have employed a combination of quantitative and qualitative approaches and have provided diverse perspectives on the topic. Recent literature on the subject focuses on various research inquiries, such as examining the challenges that impact the performance, development, and growth of the South African construction industry, as investigated by Windapo and Cattell (2013). Other studies have sought to evaluate the hindrances posed by the Fourth Industrial Revolution (4IR) within the South African construction industry (SACI) and to determine how the industry can position itself within this revolution, as explored by Ebekoziem et al. (2021). Furthermore, some studies have aimed to identify the primary challenges faced by the residential building construction sector in South Africa, offering potential solutions and discussing their implications for the industry's development (Windapo and Cattell, 2010). More recently, studies have been conducted to examine the responses of construction organizations to the COVID-19 pandemic and the subsequent lockdown measures,

investigating the impact of these events on the South African construction industry (SACI) (Aigbavboa et al., 2021).

These studies make valuable contributions to the existing body of literature concerning the challenges and obstacles faced by the South African construction industry in terms of its performance, growth, and development. Their findings have broader implications for the construction industry. However, it is worth noting that most of these studies were conducted before the COVID-19 pandemic, which has had a significant impact on the construction industry. In contrast, this current study considers the effects of the pandemic in its investigation and analysis. This has further provided a completely new variable that has not been factored in by other studies giving this study a new significant dynamic to explore. Even though Aigbavboa et al. (2021) factors in the COVID-19 variable, it is significantly distinct from this study because it focuses on the well-established companies within the sector as its participants while this study looks at the SMME component of the construction industry that most research and literature on the topic has not extensively covered. In this regard, this study significantly provides a narrow but significant focus on the SMME's unique challenges and impediments against their performance, growth and development post-COVID-19 and seeks to further recommend tailored intervention measures in response to the new and long-standing challenges to improve their development.

Furthermore, this study assesses the challenges affecting small to medium construction companies in Maphumulo Municipality KwaZulu-Natal post-COVID-19. Even though this study contributes to the general discourse, it is contextualized within the Maphumulo Municipality which offers different environmental dynamics from other studies which have been conducted in different settings such as the City of Cape Town (Windapo and Cattell, 2013) and Johannesburg (Aigbavboa et al., 2021). The contextual differences have the potential to influence the study methodology as far as the participants and the collected data are concerned. Consequently, the findings of these studies may not be generalized to apply within the Maphumulo Municipality context from which comprehensive and accurate conclusions could be drawn. Therefore, the study area provides a contextually unique and significant perspective on the discourse.

This is significant because this study assumes that the performance of the South African SMME sector is linked to the performance of the economy and the development of society in general.

Thus, highlighting the challenges affecting SMMEs in the construction industry in Maphumulo Municipality, KwaZulu Natal post-COVID-19 and comprehensively look at the resilience of the SMMEs in the construction industry within the VUCA environment from various angles including the management efficiency improvement, use of skills and resources, the impact of government support and legislation, and collaborations at an organizational and community level could potentially generate advantages to the SMMEs in the construction industry within the area.

1.7 LITERATURE REVIEW AND THEORETICAL UNDERPINNINGS IN THE STUDY

According to the reviewed literature, there has been special attention afforded to SMMEs, globally. The literature denotes that this focus emanates from the fundamental contribution that SMMEs make towards the economy, alleviation of poverty and creation of employment (Berry et al. 2002; Rogerson and Rogerson, 2020; Ayandibu and Houghton, 2017). According to the International Finance Corporation (2018), SMMEs constitute about 98 per cent of businesses and account for between 50 and 60 per cent of the country's labour force. Globally SMMEs are the major contributors to employment, innovation, development, and capital investment (Ayandibu and Houghton, 2017). Therefore, there is a concerted effort by governments, globally and locally, to promote SMMEs' economy. The South African government has, through legislation and policy protected and promoted the SMMEs economy, particularly the SMMEs in the construction sector. In this regard, the Department of Small Business Development established an agency called The Small Enterprise Development Agency (SEDA) through the National Small Business Amendment Act (Act 29 of 2004) (Mahambehhlala, 2019). The Small Enterprise Development Agency (SEDA) was, among other things, “mandated to implement government’s small business strategy, design and implement a standard and common national delivery network for small enterprise development and integrate government-funded small enterprise support agencies across all tiers of government” (SEDA, 2017, p.6).

However, the literature posits that SMMEs in general and within the construction sector are faced with a plethora of challenges ranging from inadequate access to finance and credit (SEDA, 2017); to bureaucratic hurdles remain one of the major obstacles to sustainable bossiness for SMMEs (Mahambehhlala, 2019); high levels of crime which have force spend on security concerns with a

ripple effect on the overall cost of doing business and significantly deter investor confidence in South Africa (SEDA, 2017; Mahambehlala, 2019); SMMEs located in rural areas are at a disadvantage compared to their urban counterparts due to social and economic exclusion (Tiwasing, 2021).

These issues have been compounded by the advent of COVID-19 which, coupled with these issues has resulted in dire consequences for SMMEs in the construction sector. According to the Small Enterprise Development Agency (2022), there was a drastic decrease in the number of SMMEs in South Africa in the third quarter of 2020. It is estimated that the number of SMMEs decreased by a massive 290 000 as of the third quarter of 2021, this is an 11% decrease from the initial number of SMMEs before the coronavirus pandemic. These dire consequences have been attributed to no ability to counterattack the consequences brought about by COVID-19. According to Syriopoulos, (2020) several problems such as shortage of funds and liquidity, employees, customers, and technology. This has failed to service their clientele, Lack of funds to pay salaries to their employees and ultimately shut down. According to the Small Enterprise Development Agency (2022), 90% of all jobs lost in the third quarter of 2020 originated from SMMEs. Considering the vulnerability of SMMEs to crises and the dire effects of the COVID-19 pandemic, there is an urgent need to conduct research looking at avenues from which SMMEs in general and in the construction, sector can deal with the adverse effects of COVID-19 and be made resilient for future crises.

This study used the Resource Based Theory, Institutional Theory and Social Capital Theory as the guide on which to build and support this study. These theories guided this study to highlight various avenues from which the challenges affecting SMMEs in the construction industry in Maphumulo Municipality, KwaZulu Natal post-COVID-19 can be understood and mitigated. The Resource Based Theory assisted this study to investigate how the use of resources can be managed and used to impact a corporation in response to a volatile business environment amid and post-COVID-19. The Institutional Theory highlighted the entrepreneurship development of SMME construction companies using the regulatory, normative, and cognitive perspectives resulting in their ability to be resilient amid and post-COVID-19 pandemic, and lastly, Social Capital Theory highlighted how relationships between SMME construction companies, and the Maphumulo Local Municipality can be harnessed to potentially attain the SMMEs' recovery goals post-COVID-19.

The integration of these theoretical frameworks allowed this study to comprehensively look at the resilience of the SMMEs in the construction industry within the VUCA environment from various angles including the management efficiency improvement, use of skills and resources, the impact of government support and legislation, and collaborations at an organizational and community level that have the potential to be advantageous to them.

1.8 RESEARCH METHODOLOGY

This study adopted the interpretivism philosophy. Interpretivism is a worldview attributed to subjective inquiry rooted in understanding and believing that participants give their understanding of the reality, or the researched problems based on their understanding and interaction with the environment or setting (Ary et al., 2018). Following the philosophical approach of Interpretivism, this study embraced a subjectivist epistemology. The subjectivist epistemology holds that researchers interpret their findings by utilizing their own reasoning and cognitive processes, which are influenced by their interactions with participants. It assumes that researchers generate knowledge within a social context based on their real-world experiences in the natural environments being investigated (Punch, 2013). In this interactive process, the researcher and the subjects engage in various activities such as conversations, questioning, listening, reading, writing, and documenting research findings. Consequently, the study adopted a relativist ontology, which means that the researcher acknowledges the existence of multiple realities within the studied situation. It is also assumed that these realities can be explored, given meaning, or reconstructed through the interactions between research participants and the subjects (Çelik and Köksal, 2019).

This study utilized a qualitative research method to investigate the impact of COVID-19 on small, medium, and micro enterprises (SMMEs) within the construction industry in Maphumulo Local Municipality and their resilience within the VUCA environment post-coronavirus pandemic. In line with the naturalist methodology, the researcher acted as a participant observer and gathered information through in-depth interviews, discussions, conversations, texts, and reflection sessions (Creswell and Creswell, 2018). The aim was to understand the perceptions and lived experiences of SMMEs in the construction sector regarding the challenges they faced after the COVID-19 pandemic and the effectiveness of intervention measures. Therefore, the study can be characterized

as descriptive and explorative, as it describes and explores the perceptions and experiences of SMMEs concerning post-COVID-19 challenges and their resilience within a VUCA environment. This approach was chosen to gain a comprehensive understanding of the participants' views on the phenomenon at hand (Creswell and Creswell, 2018).

The target population of the study consisted of all SMMEs operating in the construction sector within Maphumulo Local Municipality, as they shared similar characteristics and were in the same geographic area. Purposive sampling, a non-probability sampling technique, was employed to select participants who could provide rich and relevant information for the study's objectives (Palinkas et al., 2015). The researcher used their discretion to purposefully select participants based on their knowledge and experience related to the research topic. Fifteen SMMEs meeting the research criteria were initially approached, but data saturation was achieved with twelve participants, who were then included in the study. Thematic analysis was employed to analyse the qualitative data collected in the study. This involved identifying passages of text linked by common themes or ideas, categorizing the data, and establishing a thematic framework (Vaismoradi and Snelgrove, 2019). Ethical considerations were addressed by obtaining ethical clearance from the University of KwaZulu Natal's Research Ethics Committee and obtaining permission letters from relevant gatekeepers. Informed consent was obtained from the participants, ensuring voluntary participation and the right to withdraw at any stage without adverse consequences (Silverman, 2014).

1.9 ORGANISATION OF THE STUDY

Chapter One

This chapter presented a thorough overview of the study, starting with an introduction that highlighted the importance of South Africa's small, medium, and micro enterprise (SMME) economy, particularly within the construction sector, and the challenges that hinder its progress and expansion. Additionally, Chapter One provided a clear statement of the research problem,

research questions, aim, and objectives. Moreover, the chapter emphasized the significance of the study and its contribution to the existing body of knowledge.

Chapter Two

This chapter reviewed relevant literature to locate this enquiry within the existing body of knowledge on the topic and relevant to respond to the research questions. The literature highlighted the economic and social significance of SMMEs in general and within the construction sector, the associated impediments, challenges emanating from the COVID-19 impact and other relevant headings. Furthermore, this chapter outlines and defines the main concepts of the study and presents the theoretical framework underpinning the study and its analysis. The chapter also incorporates theoretical underpinnings that provide a further robust argument that solidifies the gaps in the study.

Chapter Three

In Chapter three, the study area where the research was conducted was introduced to provide a contextual understanding. The primary focus of this chapter was on the research methodology, including the research design, sampling strategies, data collection techniques, methods of data analysis, and data verification methods employed in the study. Ethical considerations were also discussed, and the potential value and limitations of the study were outlined in further detail.

Chapter Four

In this chapter, the findings of the study are thematically presented, discussed, and interpreted. The discussion that ensues emanates from the findings drawn from the surveys, interviews, and the reviewed literature.

Chapter Five

This last chapter provides a summary of the study, outlining the research problem, research questions, objective of the study and the study's findings from which conclusions and recommendations are drawn and presented.

1.10 CHAPTER SUMMARY

The development and prosperity of SMMEs in any sector have proven to play a significant role in both the economic and social growth of any country. However, the SMMEs within the construction sector, despite their significant contribution, still face challenges which have been detrimental to their development. This has been exaggerated by the new COVID-19 variable with its new challenges and has provided a new dynamic worthy to be interrogated and assessed. It is upon this background that this chapter has formulated its research problem, questions, and objectives. The aim is to draw conclusions and recommendations that will contribute to a general discourse about how best SMMEs within the construction industry may rise above the external, operational, and contextual challenges for self-development and growth. To locate and frame this enquiry, the second chapter reviewed the relevant literature and offered the theoretical framework underpinning the study and its analysis.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION AND BACKGROUND OF THE STUDY

A literature review is the collection of previously published articles, books and documents related to the study (Kumar, 2015). The use of literature synthesis locates the study within the existing body of knowledge, while its benefit is to determine the feasibility of the methodology and to ensure that a correct approach is implemented (de Vos et al., 2011). Literature Review links theories with the connection to the topic under the inquiry (Ary, Jacobs, Irvine, and Walker, 2019). Therefore, this section broadly focuses on SMMEs, the construction industry and the VUCA environment as created by Covid-19 and leadership within the VUCA environment as the model to be utilized to analyse the construction industry's response measures.

2.2 SMALL, MEDIUM, AND MICRO ENTERPRISE (SMME) IN SOUTH AFRICA

Since the advent of democracy in 1994, South Africa has relentlessly made strides in balancing the envisaged expectations of the South African populace and reintegration into a global economy (International Finance Corporation, 2018). Economic growth, creation of employment and economic redistribution have been at the forefront of that agenda. Accordingly, since 1995 there has been a conscious drive to promote South Africa's small, medium, and micro enterprise (SMME) economy because of the significant and fundamental role it plays in the South African economy's growth (Makwara, 2019). According to the International Finance Corporation (2018), SMEs constitute about 98 per cent of businesses and account for between 50 and 60 per cent of the country's labour force. Globally SMMEs are the major contributors to employment, innovation, development, and capital investment (Ayandibu and Houghton, 2017). According to the National Small Business Act, Act No. 102 of 1996, SMMEs are defined as small, medium, and micro enterprises. The act further defines SMMEs according to size encompassing a very wide range of enterprises in descending order from very small or micro, small, and medium enterprises, these

could be registered, unregistered, informal, and non-VAT registered (Bvuma and Marnewick, 2020). Within the South African context, medium-sized enterprises often employ just over 100 employees and are traditionally family-established businesses. While informal micro-enterprises are characterized by survivalist self-employed persons from the poorest layers of the population. According to the DTI (2008), Ayandibu and Houghton (2017), and Bvuma and Marnewick (2020), most SMMEs in South Africa are located at the lower end of the spectrum and categorized as survivalist enterprises. These enterprises include street trading, occasional home-based evening jobs, backyard manufacturing, and services. Unfortunately, Bvuma and Marnewick, (2020) claim that survival entities have shown little growth potential and many of them have collapsed.

However, Small, Medium and Micro Enterprises (SMMEs), have a fundamental role to play in the economy (Ayandibu and Houghton, 2017). This is affirmed by many other authors in the SMME literature. The SMMEs sector is renowned for being one of the key drivers of employment creation, economic growth, and innovation (Windapo and Cattell, 2013; CIDB, 2022). Likewise, in South Africa, SMMEs are recognized as a key component of business so much that in 2014 the new Ministry of Small Business Development was established. The ministry is tasked with the responsibility to facilitate the development and promotion of SMMEs. The need to develop and promote SMMEs arises from their significant contribution to national GDP and employment creation (The DTI, 2008; Bvuma and Marnewick, 2020). They have significantly tried to relieve unemployment pressure from the South African government which has a 46 per cent unemployment rate (extended definition), the highest in the world (Statistics South Africa, Quarter 4: 2021). The chronic shortage of skills has partly exacerbated the unemployment phenomenon in South Africa. It is against this backdrop that the government have developed policies, programmes and strategies that will further harness the true potential of SMMEs (Bvuma and Marnewick, 2020).

2.3 GOVERNMENT POLICY ON SMMEs IN SOUTH AFRICA

To further harness the potential of SMMEs in South Africa, the government first developed the 1995 White Paper on SMME development in which the Integrated Small Business Development Strategy was articulated. The articulated Integrated Small Business Development Strategy had an

action plan focused on, “1) increasing financial and non-financial support, 2) creating a demand for the products and services provided by the SMMEs and 3) reducing regulatory constraints” (SEDA, 2017, p.5). Accordingly, several institutions were established to affect the implementation of the SMME development strategy. In this regard, the Department of Small Business Development established an agency called The Small Enterprise Development Agency (SEDA) through the National Small Business Amendment Act (Act 29 of 2004). The Small Enterprise Development Agency (SEDA) was, among other things, “mandated to implement government’s small business strategy, design and implement a standard and common national delivery network for small enterprise development and integrate government-funded small enterprise support agencies across all tiers of government” (SEDA, 2016, p.6).

Moreover, there was a merger between the South African Micro-Finance Apex Fund (SAMAF), The Small Enterprise Finance Agency (SEFA) and Khula Enterprise Finance Limited. The merger was designed to assist small businesses in need of funding below R3 million (Beynon et al., 2020). Among other services provided through this merger were term loans, bridging finance, asset finance and funds and revolving loans (Beynon et al., 2020). Furthermore, the National Youth Development Agency (NYDA) was established to assist the youth between the ages of 14-35 with business start-ups, support, and finance. Considering the technological shift in business, the Department of Science and Technology established the Technology and Innovation Agency (TIA), which was formed through a merger of seven entities, to assist SMMEs to enhance their business competitiveness in the global market (SEDA, 2022). Over and other financial assistance from the merger between the South African Micro-Finance Apex Fund (SAMAF), The Small Enterprise Finance Agency (SEFA) and Khula Enterprise Finance Limited; the National Empowerment Fund (NEF) was established to provide further financial and non-financial support to black empowered businesses (SEDA, 2022).

2.4 FACTORS AFFECTING SMME'S PERFORMANCE: SOUTH AFRICA

The factors affecting SMME performance in South Africa are discussed below.

2.4.1. ACCESS TO FINANCE AND CREDIT

The Financial Services Regulatory Task Group (2007) and SEDA (2022) both claim that access to finance and credit by SMMEs has long been a standing issue and a challenge in their development and growth. SEDA (2022) argues that due to the traditional nature of South African banks and financial institutions, they tend to assist or inject their financial support into a small business in the later stage of their development when they are satisfied the business is stable and less of a risk. Therefore, they are less likely to lend or support start-up SMMEs. However, according to Finmark Trust (2010), this varies depending on the geographical location and race. For example, in 2010 the conducted Fin scope survey on small businesses revealed that white-owned SMMEs and those that are situated in Gauteng and Northwest have greater chances of receiving financial support from banks and other financial institutions than their counterparts. Therefore, maybe correlations could be drawn from the fact that 48 per cent of businesses in Gauteng are SMMEs (The DTI, 2008).

Bhorat et al., (2018) and GEM (2022) posit that due to the rural nature of provinces like Mpumalanga and the Northern Cape, SMMEs have found it difficult to access finance. Furthermore, an obstacle to access to finance, among other reasons, has resulted in poor profits and the collapse of a significant number of SMMEs in South Africa (Ayandibu and Houghton, 2017). GEM (2022) also points out with grim the resurgence of collapsing SMMEs in South Africa. Even though the lack of access to finances is attributed to the traditional nature of banks; however, the entrepreneurs to some extent deserve to shoulder the blame due to "inadequate collateral on the part of the entrepreneur and a lack of credit history, inability to produce an acceptable business plan according to financial institutions, poor market research and the absence of a viable business idea, and lack of access to vibrant markets" (Bhorat et al., 2018, p. 20).

2.4.2 INEFFICIENT GOVERNMENT BUREAUCRACY

Government policies play a fundamental role in the development and growth of SMMEs as they provide a platform suitable for enhanced entrepreneurial activities. However, in South Africa bureaucracy remains one of the major obstacles to sustainable business (GEM, 2014). Some of the major obstacles in this regard include delayed permits and licenses, red tape in starting up and managing the business, and lack of coordination in government. The Department of Trade and Industry (2005) identified the lack of a policy-integrated strategy to promote entrepreneurship and small businesses. Furthermore, programme planning and implementation are weak due to a lack of inter-departmental cooperation. Ayandibu and Houghton (2017) even argue that at the height of the departmental conflicts, individual departments set up their programmes to affect their own SMME functions and abandon the coordinated efforts. This usually results in the duplication of efforts and hampers the development of the monitoring and evaluation framework for assessing the success of SMME programmes.

2.4.3 HIGH LEVELS OF CRIME

South Africa has a pervasive problem of high levels of crime. The prevalence of crime in South Africa equally affects both the formal and informal SMMEs. According to SEDA (2022), high levels of crime force spending on security concerns, which has a ripple effect on the overall cost of doing business. GEM (2022) posits that the business cost of violence and crime is one of the significant deterrents on investor confidence in South Africa.

2.4.4 LACK OF ACCESS TO MARKETS

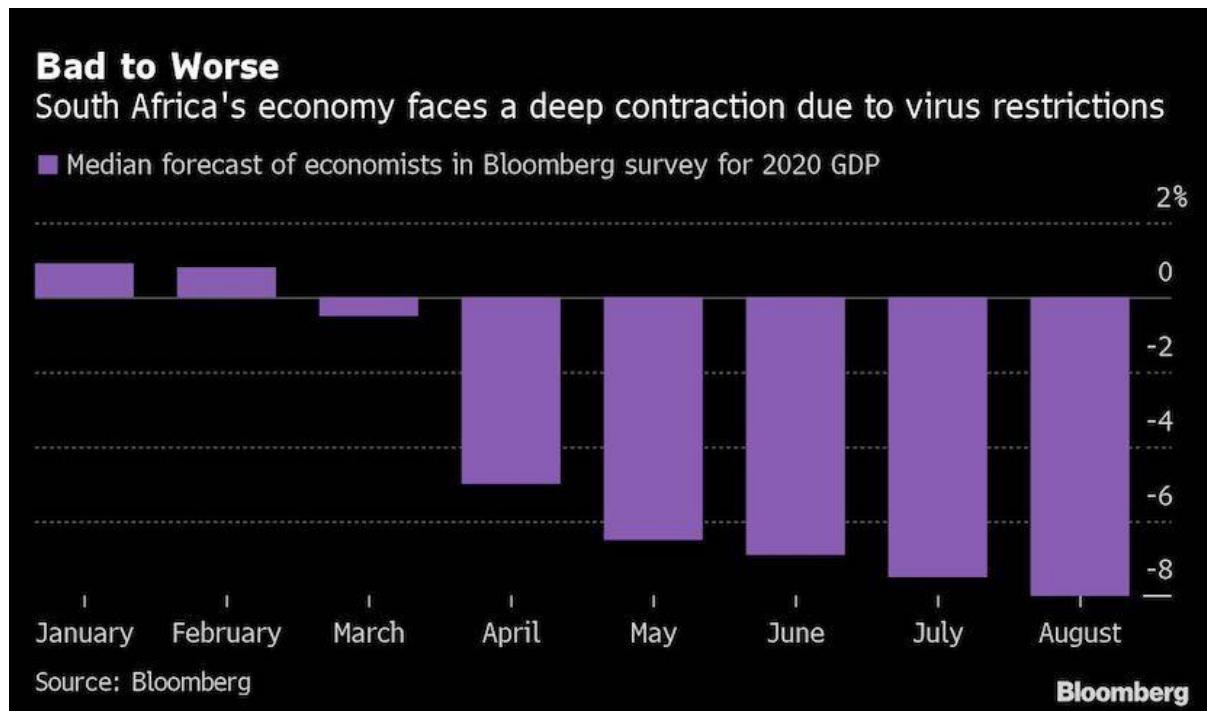
The inability to access markets has been identified as a significant barrier to achieving sustainable business for small, medium, and micro enterprises (SMMEs). Accessing markets is crucial for securing funding and mentorship in the early stages, as required by credit providers. However,

SMMEs located in rural areas face a disadvantage compared to their urban counterparts (Bhorat et al., 2018; GEM, 2022). These studies reveal that their small size and remote location make it challenging for them to form collectives that could enhance their bargaining power. Consequently, they struggle to advocate for their needs to government institutions. While the practice of forming spatial clusters is encouraged (Bhorat et al., 2018), it is mainly recommended for SMMEs that have already passed the start-up phase. However, clustering may also place fragile small businesses in highly competitive positions.

2.5 THE IMPACT OF THE COVID-19 PANDEMIC ON SMMES

The role of Small, Medium and Micro Enterprises in the overall economy of South Africa is well recognized. Several researchers such as (Adomako, Amankwah-Amoah, Donbesuur, Ahsan, Danso, and Uddin, 2022) highlight that SMMEs are quick to identify and capitalize on new market trends. However, as the coronavirus pandemic shifted from a public health crisis to an economic issue, SMMEs took the greatest downfall. Like all sectors across the globe, SMMEs were severely affected by the COVID-19 outbreak. As a control measure to inhibit the spread of the deadly virus, countries put measures which included the complete closure of all businesses and organizations. As cited by the Government News Agency (2020), the South African president announced a hard lockdown which included the complete closure of all non-essential businesses. According to the Small Enterprise Development Agency (2020), there was a drastic decrease in the number of SMMEs in South Africa in the third quarter of 2020. It is estimated that the number of SMMEs decreased by a massive 290 000 as of the third quarter of 2020, this is an 11% decrease from the initial number of SMMEs before the coronavirus pandemic. Evidently, small businesses in South Africa were suffocated by the coronavirus pandemic and the restrictions that were put in place to control the spread of the virus. The pandemic resulted in the government declaring it a state of emergency and treating it as such for at least two years (Government News Agency, 2020).

Figure 2.1: Performance of South Africa's Economy in the 3rd Quarter of Covid-19



The coronavirus did not only result in a hard lockdown which meant businesses closed doors, but it also led to a drastic decline in the demand for goods and services offered by most SMMEs. In fact, due to the SMMEs having little to no ability to counterattack the consequences brought about by the coronavirus have faced several problems such as a shortage of funds and liquidity, employees, customers, and technology (Syriopoulos, 2020). This has failed to service their clientele, Lack of funds to pay salaries to their employees and ultimately shut down. According to the Small Enterprise Development Agency (2020), 90% of all jobs lost in the third quarter of 2020 originated from SMMEs. Figure 1 above is a virtual representation of the South African economy's collapse due to the coronavirus with the SMMEs being the sector that has been affected the most.

2.6 CHALLENGES FACING THE SOUTH AFRICAN CONSTRUCTION INDUSTRY

According to the reviewed literature, several highlighted challenges characterize the South African construction industry. These include public-sector capacity (Yap, Chow, and Shavarebi, 2019);

disjuncture between the industry-required skills and available skills; Critical Global Issues/Globalization (Othman, Kineber, Oke, Zayed, and Buniya, 2021); capacity for sustainable empowerment and procurement practices (Willar, Waney, Pangemanan, and Mait, 2020); access to financial capital and affordable loans with affordable interest rates (Handfield, 2019). lack of technology (CIDB, 2022); insufficient land suitable for construction (Boshoff, 2010); lack of infrastructure (CIDB, 2022); failure of enterprises at an alarmingly high rate (CIDB, 2022); and expensive building materials (The Bureau of Economic Research [BER], 2011; CIDB, 2022).

2.6.1 PUBLIC-SECTOR CAPACITY

According to Mbande (2010), there is a serious shortage of skills phenomenon within the public sector in South Africa. This has been observed by the CIDB (2022) as one of the major constraints to infrastructure delivery, sustainable development, and growth within the South African construction industry. It is argued that the lack of necessary capacity within the public sector manifests in construction projects being inefficiently funded by the government and payments of contractors being delayed for more than six months (Yap, Chow, and Shavarebi, 2019). The lack of capacity in the public sector has further led to underspending on infrastructure and the failure to appraise public-private partnership schemes given to it for the required infrastructural projects (Laryea and Watermeyer, 2020). However, the lack of capacity in the public sector is not only attributed to the government but is reflected on the part of clients and their agents. Consequently, Laryea and Watermeyer (2020) posit that some projects remain unattended because there is a shortage of competent construction companies with the required set of expertise and experience. For example, most companies are restricted from accessing certain types of projects determined by the available personnel within their organizations. The lack of skills, expertise, and experience further determines the quality of tender documents, specifications, and management of change orders.

2.6.2 INDUSTRY-REQUIRED SKILLS AND AVAILABLE SKILLS' DISJUNCTURE

Every sector within South Africa has lamented the issues of disjuncture between the industry-required skills and available skills. The CIDB (2022) report posits that the educational system through Further Education and Training (FET) has not been able to produce adequate skills but most importantly, the skills that are in demand by the construction industry market. Accordingly, this has widened the skills gap and adversely affected the professional capacity and the quality of work within the construction industry. Mbande (2010) argues that this disjuncture in skills has contributed to the acute shortage of skills in the construction industry and consequently lower quality of work and ability to deliver projects. This has hampered service delivery, which has been correlated with an increase in community protests in South Africa. Furthermore, Laryea and Watermeyer (2020) argue that not only are skills mismatched but most employees within the construction industry lack formal education and relevant qualifications which is a serious obstruction to the development of the construction industry.

2.6.3 CRITICAL GLOBAL ISSUES/GLOBALIZATION

The study by Othman, Kineber, Oke, Zayed, and Buniya (2021) dissected how global events have shaped the local construction industry landscape by highlighting the impact of globalization on the construction industries in developing countries. The study further highlighted the constraints of global trade on economic development and how those constraints create challenges to the development of the construction industry for underdeveloped and developing countries in the world. In this regard, Othman et al. (2021) argue that global economic impact, deregulation of markets, and technological and managerial constraints have been attributed to construction industry trends in South Africa. Furthermore, the study posits that the imported construction services from Asia, Australia, etc. curtail the indigenous construction industries including that of South Africa.

2.6.4 ACCESS TO AFFORDABLE MORTGAGE/CREDIT AND INTEREST RATES

Since the global economic recession of 2007 and the recent Covid-19 pandemic of 2020, financial institutions like banks have become reluctant to lend funds and have become stringent in their lending criteria relative to the period between 2001-2003 (Berger and Demirgüç-Kunt, 2021). According to Berger and Demirgüç-Kunt (2021), the banks have implemented unaffordable lending conditions; for example, developers have been required to put down equity of up to 50 per cent and not less than 20 per cent of the cost of development. Furthermore, banks have significantly reduced funds available for lending, which has fundamentally affected access to funding and the number of delivered construction projects. According to Handfield, (2019), there is a certain level of dependence by both the developers and purchasers. For example, developers need finances from the bank and purchasers need access to a mortgage to finance the purchase of a house. The fluctuation and increase in mortgage rate to 24 per cent, which has meant a very high-interest rate, has made it difficult to afford to pay mortgage bonds Handfield, (2019).

2.6.5 TECHNOLOGY

According to Windapo (2013) within the South African context, individual constructors have struggled to participate in projects that require new technology because they lack the technological capacity to deliver such projects. The technology that most South African companies have restricts the scope of projects and limits access to certain types of projects determined by the available technology, expertise, equipment, and materials. This has affected South Africa's ability to compete on the global stage as such projects are often taken to overseas countries (Windapo, 2013). According to CIDB (2022), perceptions of viable alternative building methods and innovative building systems, particularly in the low-cost housing market, pose a challenge. End-users may not have a clear understanding or appreciation of these alternatives. Additionally, there is a tension between technology and labour in the construction industry. Government policies encourage construction companies to prioritize labour-intensive practices to stimulate the economy and address poverty concerns (CIDB, 2022).

2.6.6 AVAILABILITY OF SUITABLE LAND FOR CONSTRUCTION

Boshoff (2010) and Windapo (2013) emphasize that the availability of suitable land for construction remains one of the fundamental physical constraints on construction activity. Boshoff (2010) posits that even though there is widespread public land in South Africa there is minimal land for private developments. It is also argued that topography and soil conditions limit the land that could be used by developers (Windapo, 2013). Furthermore, the snail's pace of the land restitution and redistribution programme suggests that more than 700,000 hectares of land remain unclaimed and unusable, thus deferring the development process (Basu, 2016).

2.6.7 AVAILABILITY OF INFRASTRUCTURE

One of the fundamental challenges confronting the development of human settlements in South Africa has been the lack of an efficient and sustainable infrastructure such as water pipes, roads, electricity, sewage disposal systems and streetlights to sustain them (Kihito, 2012; Parikh, 2020). In South Africa, there is insufficient infrastructure and where it is available, it is old, substandard, or depreciating such that the government spends a considerable amount of money on its rebuilding and improvements (CIDB, 2022). Furthermore, the issue of load shedding in South Africa has exaggerated the electricity challenge as the electricity-generating issues surrounding ESKOM persist without any feasible solution on site (Parikh, 2020). Likewise, South Africa is engulfed by a water scarcity problem and townships and rural areas go for weeks and months without a single drop. These issues have meant that property developers need to provide this house-related infrastructure as an added cost of the development, which affects the value of their developments (Kihato, 2012).

2.6.8 ENTERPRISE FAILURE/DELIVERY CAPACITY AND PERFORMANCE

According to the CIDB (2022) report, the South African construction industry has been characterized by the failure of construction businesses. This means that many construction companies have collapsed to the point that they are unable to dispense their obligations when they are due. The CIDB (2019) report shows in 2017, 532 construction companies were liquidated and in 2018 and 2019 they were 371 and 554: respectively. This means that about 1 400 construction companies collapsed between the 2017-2019 period. This decline is not recent; for example, Windapo and Cattell (2011) posit that in 2010 there was a sharp decline in construction companies by 8 per cent from the previous year. Furthermore, the CIDB (2019) report posits concurrent with the decline in construction companies, there has also been a decline in the profit generated by the industry by 1 per cent. According to Borat et al. (2018, p. 29) “the high rate of enterprise failure reflects demand volatility, high levels of non-completion, poor management and low productivity” Thus South African construction industry remains one of the underperforming construction industries in the world with very low productivity.

2.6.9 INCREASES IN THE COSTS OF BUILDING MATERIALS

The cost of the building materials is a fundamental factor in the construction process because the cost of materials accounts for almost 60 per cent of total project costs (BER, 2020). Even though South Africa produces its strategic materials the increased costs of the building material are a cause for concern. According to the CIDB (2019) report, prices of volatile building materials such as cement, steel, copper, sand, timber bitumen, polyvinyl chloride (PVC) pipes and masonry have increased by 100 per cent from 2012 -2017. Before then, BER (2020) had reported an increase in prices ranging between 70 per cent–and 241 per cent from 2000 to 2010. The unstable building material costs, which have increased above inflation have adversely affected the developers’ ability to deliver affordable projects and have also resulted in high tender valuations and poor construction industry performance (CIDB, 2019). Thus, according to Borat et al. (2018), building material prices pose a significant challenge to the development of the construction industry in South Africa.

2.6.10 STATUTES AND REGULATIONS

Over-regulation has been identified by literature as one of the fundamental challenges facing the construction industry in South Africa. According to Berger and Demirgüç-Kunt, (2021, p. 96), statutes and regulations on “insurance provisions, standards, the defects liability period, height restrictions, and health and safety provisions are factors that constrain the level of construction activity in any country at any given time”. This is concurred by the CIDB (2022) report, which posits since the advent of democracy in 1994, more than 1000 pieces of legislation and emanating laws have been passed by the South African government giving the impression of over-regulation. The passed laws have affected various processes and procedures within the construction industry such as “tender and procurement procedures, employment and labour practices, BEE, planning permissions and controls, skills development and training and business practices” (CIDB, 2022, p.107). Consequently, there is a delay in approvals and zoning processes at a local authority level, which results in unnecessary holding cost costs (CIDB, 2022). Addressing the global warming issues related to the climate change phenomenon has added a new variable in the construction industry requiring new legislation for constructors to comply with. Therefore, Co2 emission and the use of water and other natural resources are some of the regulations that construction companies have found difficult to comply with (Berger and Demirgüç-Kunt, 2021).

2.7 GLOBAL CHALLENGES FACING SMMES IN THE CONSTRUCTION INDUSTRY

According to Aigbavboa et al. (2018) the rise of small businesses within the construction industry, particularly in developing countries, has contributed immensely to the country’s economic growth and the reduction of unemployment. The SMMEs and the construction sector, in general, have been pivotal in the absorption of semiskilled and unskilled labour (Windapo and Cattell, 2013; CIDB, 2022). In this regard, the national economies have been somehow dependent on the output of the construction industry (Othman et al., 2021). However, SMMEs within the construction industry have consistently faced challenges. According to Ofori and Toor (2012), these challenges

include low skills and resources for equitable participation in the industry. Accordingly, most SMMEs in the construction industry rely on outsourcing personnel and consequently, construction workers are forever looking for green pastures, which has affected the skills development and retention of expertise within the sector (Ofori and Toor, 2012).

Tshikhudo (2016) posit that SMMEs within the construction industry have common challenges but sometimes they do experience market and location-based challenges which adversely affect their operation. Furthermore, Biger and Gill (2012) posit that lack of proper managerial skills and weak management, lack of information technology skills and regulatory issues are many of the fundamental challenges frustrating business growth in the construction industry for SMMEs. Saleh and Ndubisi (2006) attribute some of the challenges faced by the SMMEs within the construction industry to be emanating from, globalization, liberalization, and extensive organizational, institutional and technological change. Liquidity, financial capital constraints, poor financial control, credit issues and lack of accounting knowledge have led to underinvestment, inability to initiate barriers against random shocks and have frustrated the growth of the business and threatened its survival (Barbosa, 2016). The failure to integrate accounting practices and knowledge, lack of sound financial management and planning and lack of access to capital are also some of the challenges that characterize the SMMEs within the construction industry.

The literature has further highlighted that most failed SMME businesses in the construction industry are due to the inadequacies in business capabilities, business commitment, discipline and time management of the company owners (Chimucheka, 2016, Anga, 2014) For example, in a study conducted by Anga (2014), they found that most SMMEs owners in the construction industry do not spend adequate time on site looking after projects, but they spend most of their time on other business unrelated activities. Consequently, their inability to manage time results in poor site management, which subsequently results in project delays, overruns, and financial strains due to penalties and delivery of poor-quality projects (Chimucheka, 2016). Consequently, SMMEs in the construction industry are incapacitated to handle highly skilled and huge projects. Chimucheka, (2016) posits that systematic underinvestment in human capital remains one of the main challenges for SMMEs in the construction industry. Accordingly, this has resulted in a labour force with a skewed distribution of craft skills, career opportunities and workplace experience. Thus, there is a lack of a readily available skilled workforce for small businesses to easily employ and function

with. Lacking access to a skilled workforce has been the difference between SMMEs and big construction companies, which has significantly affected their full potential and growth (Anga, 2014). Over and above the lack of access to technical skills and training for entrepreneurs, the lack of information technology applications has affected their competitiveness in the global market (Anga, 2014).

2.8 SOUTH AFRICAN CHALLENGES CONFRONTED BY SMMEs IN THE CONSTRUCTION INDUSTRY

The construction industry is a fast-growing sector in the South African context, it is among other fraternities that the government inject an extensive amount of fixed capital through national, provincial, and municipal infrastructure grants and State-Owned Enterprises for infrastructural development and maintenance linked to economic growth (Balogun, Ansary and Agumba, 2016). Thus, construction companies strategically become important partners in economic growth, job creation innovation and infrastructure design. Balogun et al. (2016) concur that the construction industry contributes immensely in terms of the share and scale development process of South Africa. Balogun et al. (2016) posit that the construction industry has allowed a majority of constitutes including the SMMEs to operate and provide services for both private and public infrastructure. Hence, SMMEs have been at the forefront as key enablers of the construction industry's growth and by extension in the South African economy. The FIFA 2010 World Cup was a great enabler for SMMEs in the construction industry in South Africa. The capital investment by the government spent on infrastructure development provided plenty of opportunities for SMMEs in the construction industry to exploit. However, a study conducted after the 2010 World Cup by Tshikhudo, (2016) posits that about 60-70 per cent of SMME contributors fail within the first five years of their establishment.

Looking at the reasons attributed to the failure of SMMEs in South Africa, there is little that deviates from the global literature. For example, Balogun et al. (2016) have highlighted poor managerial skills, lack of good leadership skills and technical expertise as one of the major causes of the failure of SMMEs in the construction industry in South Africa. This concurs with the global

literature which has highlighted that most failed SMME businesses in the construction industry are due to the inadequacies in business capabilities, business commitment, discipline, and time management of the company owners (Chimucheka, 2016; Anga, 2014). Likewise, Chinomona and Maziriri (2015), documented several challenges faced by SMME construction companies in South Africa which included lack of funding or lack of access to financial resources, and poor credit rating as the key challenge for SMMEs hence they perform poorly and end up collapsing in their operations.

According to Tshikhudo, (2016), SMMEs in the construction industry in South Africa struggle to comply with regulations that enable access to a financial institution and lack financial infrastructure when they seek funding. In essence, the majority of SMMEs in the construction industry fail to meet the demands of financial institutions (Mandipaka, 2014; Tshikhudo, 2016; Chinomona and Maziriri, 2015). Furthermore, Chinomona and Maziriri (2015) and Balogun et al. (2016) posit that SMMEs in the construction industry in South Africa lack collateral requirements and adequate knowledge for business development and compliance, hence they fail to sustain businesses. Lack of institutional capacity (knowledge, skills, and expertise) is reported to be another key challenge for SMMEs in construction. Phillips, Mooi and Nieman (2014) concur that most SMMEs are most likely to fail in South Africa because they are predominantly owned by (HDI) Historically Disadvantaged Individuals, women, youth and black people without good financial backgrounds and technical knowledge of construction practices and managerial skills.

According to Moyo (2019), despite the importance of the construction industry's SMME companies in their significant contribution they are hardly ever given attention in municipal strategic plans and studies. This impacts the performance and growth of SMMEs within the municipality and leaves them vulnerable to various challenges (Moyo, 2019). A primary examination is sufficient to understand that the majority of SMMEs in the construction industry are facing increased competition from large companies in the Maphumulo Municipality, which results in low demand for services of SMMEs leading to reduced opportunities for projects and ultimately shedding of jobs (Moyo, 2019). Furthermore, SMMEs are left exposed to volatility and unexpected circumstances which results in their demise. Moreover, Ayandibu and Houghton (2017) posit that SMMEs in the construction industry in South Africa lack core capacities and have

no access to or are unable to afford qualified skilled labour that will help in their day-to-day business.

The success of SMMEs is continuously threatened by over-regulation which governs the establishment of businesses which are extremely intricate and conflicting. Sitharam and Hoque (2016) argued that some SMMEs do not comply, because some regulations are time-consuming and expensive while others do not understand the laws that govern them, making it difficult to be compliant. Therefore, it has caused some SMMEs to lose confidence stating that the municipality's rules and regulations are rigid and not conducive to business growth (Sitharam and Hoque, 2016). Additionally, local government and government policy has been ranked among the worst in the world in terms of labour market efficiency as South Africa has extremely restrictive labour policies and the new labour regulations promulgated have been slated as being even more restrictive than the existing problematic policies (Herrington, Kew and Kew, 2010 cited in Sitharam and Hoque, 2016).

2.9 THE IMPACT OF COVID-19 ON THE CONSTRUCTION INDUSTRY

According to the reviewed literature, the construction industry plays a pivotal role in the economic and social development of both developed and developing countries through its ability to create employment and deliver infrastructure (Balogun, Ansary and Agumba 2016; Collier and Page, 2009). However, mostly in developing countries such as South Africa, the industry has been inundated with a barrage of challenges and delivery of poor services characterized by poor management, lack of innovation, lack of compliance, absence of adequate personal protective equipment, ignorance, amongst others (Amoah and Simpeh, 2021; Mengistu and Mahesh, 2020). The COVID-19 impact has added new challenges requiring the industry to innovate and adapt for continued survival. Therefore, understanding these challenges will assist in informing the development of the appropriate strategies in response to the pertinent issues currently and in the future.

According to Aigbavboa et al. (2021), the COVID-19 pandemic has introduced new safety concerns in the workplace and the construction industry making it a need to devise appropriate and

adequate strategies to ensure a safe working environment for workers and business proficiency and survival. However, globally and in South Africa there has been no coordinated and collaborative policy direction in response to the impact of covid-19 within the sector. Therefore, there seem to be erratic and uncoordinated responses based on individual countries' findings and experiences (Aigbavboa et al., 2021). For example, to be able to reduce the spread of the virus, different countries within the sector have resorted to various measures such as placing restrictions on work-related events to be attended by employees in America, closing construction sites in the United Kingdom (UK) (Sraders, 2020); and here in South Africa, most companies decided to work remotely (Aigbavboa et al., 2021). Working remotely has however proven to be impractical due to the hands-on nature of the industry in delivering its projects. According to Amri and Marey-Pérez (2020), the hands-on nature of work in delivering projects amplifies the risk of infection and the spread of the virus.

Similarly, in America and the UK, the closing of sites has caused delays in the delivery of projects and has disrupted the supply chain market as well. For example, Chivilo et al. (2020) posit that about 40 per cent of the companies both in the construction industry and related supply chain companies in America retrenched workers at the early stages of the pandemic. In the UK, Sraders, (2020) posits that construction companies experienced labour and material shortages, and procurement issues. Furthermore, in other countries such as Malaysia, India and Qatar, the construction funding was withdrawn, projects were suspended, and there was job loss, time overrun, cost overrun, financial implications and shortage in critical labour and field specialists (Gamil and Alhagar, 2020; Amri and Marey-Pérez, 2020). Similarly, in Ghana, the construction industry amid COVID-19 has been categorized by the decrease in the delivered projects, payment delays and inflated cost of materials due to several countries closing their borders (Agyekum et al., 2021).

According to Nicola et al. (2020), the cash flow of most construction companies has been adversely affected due to hampered mobility, stopped projects and the need to conserve cash by clients. Heimgartner (2020) posits that sub-contractors have felt the impact more vehemently and thus have been at risk of bankruptcy due to high levels of debt and low cash reserves. Moreover, Musonda and Rakolote, 2022) also posit that there has also been a looming contractual issue leading to disputes between project parties. The advent of COVID-19 has had other associated

issues which have indirectly or indirectly affected the construction industry such as the “potential global recession, reduction in workers productivity, decrease in client’s confidence, disruption in the supply chain, project funding difficulties, lack of necessary information and potential 15% economy declined in most countries” (Heimgartner, 2020, p. 3). Looking at the fact that the construction industry in South Africa had already shed around 142,000 in 2019, the covid-19 related global trends within the sector coupled with the decline in government spending on infrastructure have aggravated the situation and as a result, more jobs have been lost (CIDB, 2022). The South African construction industry has been characterized by “the shrinkage in companies’ profits, overruns of project costs, labour disruption and poor productivity that has characterised the industry in the past” (CIDB, 2022, p. 1). Moreover, the COVID-19 impact has resulted in the resurgence in the termination of contracts with companies and the government desperately trying to control expenditure (Musonda and Rakolote, 2022). The comprehension of these issues provides an understanding and evidence from which efficient strategies and responsive measures would be informed to cushion the construction industry from the COVID-19 impact.

2.10 VUCA ANALYSIS WITHIN AND POST-COVID-19 ERA

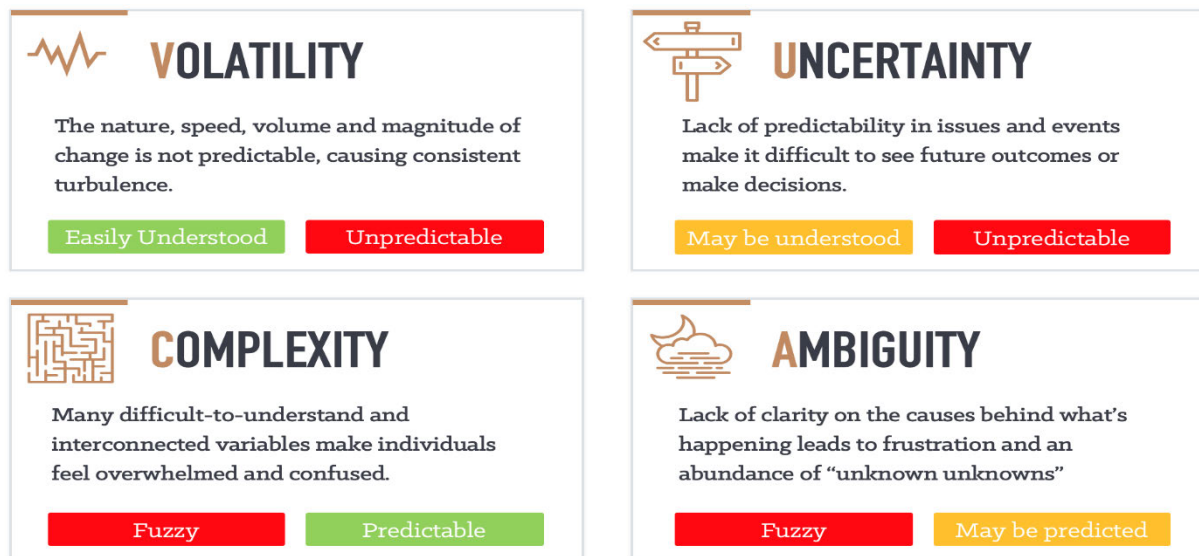
2.10.1 DEFINING VUCA WORLD

According to Kinsinger and Walch (2012), the acronym VUCA was first coined and introduced by the U.S. Army War College in response to the failure of the bipolar world order. However, in 1987 Warren Bennis and Burt Nunn adapted it to leadership theory (Kinsinger and Walch, 2012). The acronym stands for Volatile, Uncertain, Complex and Ambiguous. Before the end of the Cold War in 1991, the term VUCA was not publicly used. It was only used thereafter to highlight the multilateral world that emerged after the Cold War, which was characterized by volatility, uncertainty, complexity, and ambiguity as the result of the war (U.S. Army Heritage and Education Center, 2018). In 2002 VUCA enjoyed the attention of scholars and was defined in more detail. Thus, it was introduced in a vast range of disciplines to understand a vast range of dynamics. For example, according to Sinha and Sinha (2020, p. 17), the VUCA model was then used to

understand the “ever-dynamic corporate world and the ideas of strategic leadership to offset the negative impact of these four variables”. Recently with the COVID-19 pandemic, the world has witnessed a drastic change, which has brought in intricate problems with escalated levels of uncertainty, lack of clarity, and ambiguity. Therefore, today’s leaders require a different mindset and leadership acumen that is necessary to respond to the demands of the constantly changing, complex and difficult world. Thus, the VUCA environment demands that the leadership has vision, and understanding, provides clarity and shows a high level of adaptability and agility (Zu, 2022).

2.10.1.1 ELEMENTS OF VUCA

Figure 2.2: VUCA Elements, Drivers, Effects & Demands. Source: Zu (2022)



a) Volatility

Change is customarily characterized by significant and insignificant changes, expectable and impulsive changes, and constructive and adverse changes. However, Sinha and Sinha (2020) posit that even though change is constant in the world recently the world has rapidly been changing in an unstable proportion. Sinha and Sinha (2020) further lament that the frequency of changes has

been rapid so much that there is no time to ascertain cause and effect; for example, the fluctuation of price best depicts this level of volatility, the extent to which petrol prices, material prices and food grocery bills change. Therefore, volatility essentially implies the rapid pace of change in several sectors such as production, markets, manufacturing, services and everywhere else globally. Furthermore, Bennett and Lemoine (2014), define volatility as the unexpected, unstable and may be for an unknown duration though it is not difficult to tackle as its knowledge is available. The provided definitions, therefore, denote that volatility is rapid, unstable, and unpredictable change.

The rapidly changing, unstable, and unpredictable nature of the business environment often creates a volatile setting characterized by fluctuating demand, chaos, and unpredictable market conditions (Bennett and Lemoine, 2014). This phenomenon is commonly known as industry dynamism (Sinha and Sinha, 2020). Volatility extends beyond changes within the business environment and encompasses economic and social conditions that directly and indirectly impact businesses (Sinha and Sinha, 2020). In this context, the unexpected global outbreak of the COVID-19 pandemic and the subsequent implementation of strict lockdown measures to curb the virus's spread has further intensified the instability in the business landscape. Additionally, the uncertainty surrounding the duration of the pandemic poses a challenge for leaders and managers in developing survival strategies, as the timeline for the existence of the virus remains uncertain.

b) Uncertainty

Decision-making in business used to be premised on past experiences and forecasts/estimates to predict or anticipate how events or markets will unfold. However, the environment has become so intricate that decisions on investment, growth or development have become difficult to visualize and predict. According to Zu (2022), this is because the environment has proliferated with many variables causing uncertainty and thus making statistical or technological predictions insufficient to predict outcomes. Uncertainty frequently ensues in exceedingly unstable environments that involve unanticipated relations (Sinha and Sinha, 2020). According to Kinsinger and Walch (2012), uncertainty in business is created by the existence of a volatile challenge. Uncertainty within business refers to the unpredictability of issues and challenges, making it difficult for managers and business leaders to be able to predict or anticipate future outcomes (Sullivan, 2012).

Within the context of the covid-19, uncertainty in business has increased. A survey conducted by StatsSA (2020a) during the first two weeks of the national lockdown revealed that about 42.2% of businesses indicated that were uncertain that they have enough financial resources to continue operating during this volatile time. This has been evident in the type of uncertainty that the Covid-19 pandemic has caused in organizations' continuity and survival.

c) Complexity

Complexity represents the third element of VUCA, and as Sullivan (2012) explains, it refers to the difficulty in comprehending and addressing complex issues and challenges in the business world. The intricate nature of these complexities makes it challenging to develop appropriate mitigation measures. Moreover, the combination of high complexity, turbulent changes, and the absence of previous indicators further complicates the decision-making process, leading to confusion and ambiguity (Sullivan, 2012). Zu (2022) suggests that certain issues and events exhibit multiple layers of complexity, which adds to the intricacy of decision-making as it involves a network of interrelated reactions. Consequently, making accurate decisions has become a complex and intricate undertaking. Schick et al. (2017) caution researchers against relying on linear relationships between parameters and variables, as outcomes are influenced by various factors such as the business environment, socio-political dynamics, availability of technology, and available resources.

d) Ambiguity

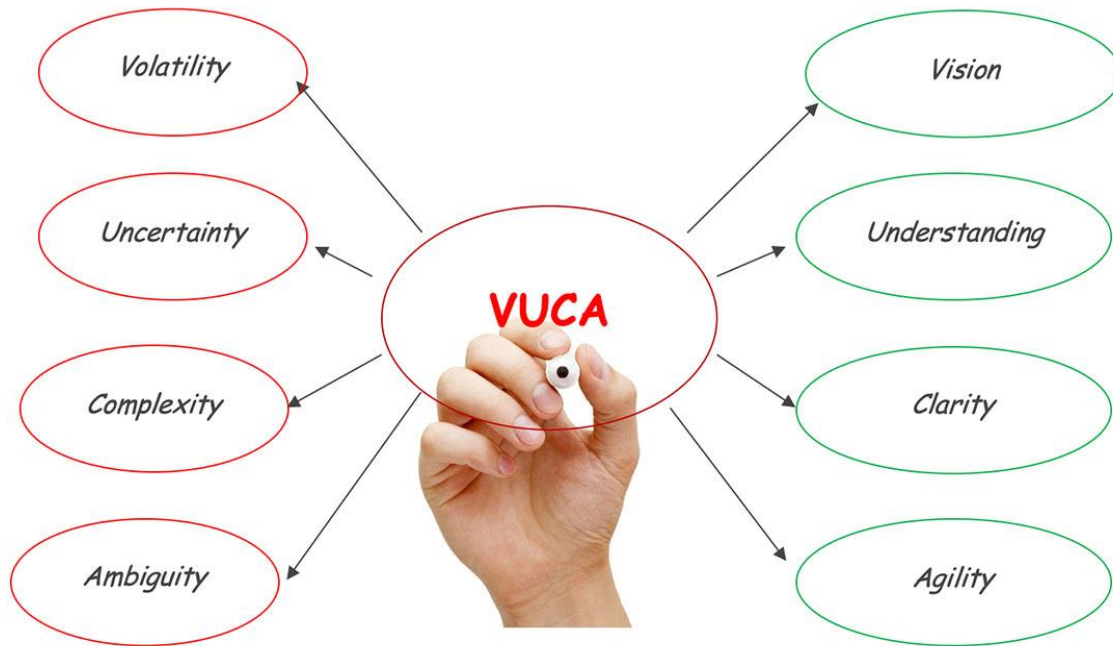
According to Schick et al. (2017), ambiguity refers to the lack of clarity or understanding regarding the meaning of a challenge or issue. In the current volatile, uncertain, and complex environment, the world is no longer straightforward or easily definable. Instead, it is characterized by shades of grey, with nothing being purely black or white. Modern business organizations are now confronted with contradictory issues and challenges that challenge the very essence of their value systems, making decision-making a difficult and intricate task. In today's decision-making process, it is

crucial to have the courage to face the consequences and be prepared to make mistakes (Kinsinger and Walch, 2012). While uncertainty refers to a state where relevant information is missing, ambiguity occurs when there is a surplus of information, yet no meaningful message can be derived from it. Ambiguity often arises from information overload (Kinsinger and Walch, 2012; Schick et al., 2017). In contemporary times, both uncertainty and ambiguity coexist, further complicating decision-making processes.

2.10.2 LEADERSHIP FRAMEWORK IN VUCA

According to Schick et al. (2017), certain industries inevitably face the challenges posed by a VUCA environment, but the impact of these challenges can be alleviated. In this context, Johansen, and Euchner (2013) offer a positive interpretation of the VUCA acronym, suggesting that Vision, Understanding, Clarity, and Agility can help address the issues and challenges that arise from an intensely volatile, uncertain, complex, and ambiguous environment. Building on Johansen and Euchner's (2013) proposal, Codreanu (2016) establishes the theoretical foundation for identifying an action framework that leaders can rely on when faced with the need to make rapid decisions, often with limited or no information, and simply navigate the consequences without immediate and direct evidence.

Figure 2.3: Leadership Framework under VUCA Environment. Source: Author



a) Vision

Vision is one component needed in leadership to not only forecast the future but to create it through actions Codreanu (2016). Therefore, the organization's vision is part of every organization's mission statement that managers need to translate into business practices Gibson (2018). This means that vision needs to be associated with specific organizational behaviours, practices, and structures. In this context, to give tangible meaning to such an abstract concept, one can examine it through the concept of "keystone habits" as described by Gibson (2018). Keystone habits refer to the routines and practices at the individual, group, or organizational level that, if identified correctly and acted upon, can trigger widespread and transformative change. Therefore, vision entails identifying the critical priorities that, if left unaddressed or altered, can disrupt, and reshape other patterns.

However, the challenge arises when trying to reach a consensus on what constitutes a significant and crucial practice for running an organization and achieving project success. By identifying the keyword that establishes the priorities and is non-negotiable for all stakeholders because it aligns with their best interests, a vision can be formed. This process involves identifying the root causes that may hinder the realization of the vision and determining the most effective ways to address them. As a result, vision involves creating a strong and compelling statement of team objectives and values, as well as developing a clear and shared vision of the future (Codreanu, 2016). This necessitates setting flexible goals that can be adjusted as needed and responding promptly to changes. Ultimately, it involves identifying the behaviours that everyone considers essential for their interests, and such alignment can foster a sense of community and unity vital for any organization's success.

b) Understanding

According to Codreanu (2016), understanding is fundamental for leadership in the VUCA environment. This is so because understanding encompasses accountability, openness, willingness to respond to tougher problems, setting boundaries through setting out clear objectives and expectations, effective and consistent communication, reciprocating the behaviour you expect from others, listening and relational skills, and giving trust to others Jones et al. (2016). Therefore, understanding assists the leader in understanding and developing new ways of thinking and acting in response to VUCA's elements. According to Codreanu (2016), the leader is thus expected to:

1. Invest in analysing and interpreting business and competitive intelligence as a matter of priority to keep abreast with the current trends.
2. Pay attention to customers' needs.
3. Evaluate performance.
4. Anticipate possible future threats to devise possible responses.

c) Clarity

According to Johansen (2012), clarity differs from simplicity and certainty. It focuses on providing guidance rather than predefined outcomes and allows for flexibility in the details. In essence, clarity involves acknowledging the lack of knowledge in a particular field and exhibiting a willingness and patience to learn and acquire new information through dialogue and conversation. In today's complex environment, clarity is crucial as excessive complexity, often referred to as "complicatedness," hampers organizational progress. Complicatedness refers to the proliferation of cumbersome organizational mechanisms such as structures, procedures, rules, and roles that companies employ to navigate modern business complexity (Codreanu, 2016). This internal complicatedness, accompanied by bureaucracy, impedes a company's ability to leverage complexity for competitive advantage and, worse, hinders its ability to achieve desired outcomes. However, complicatedness is not the root cause of the problem but rather a by-product of outdated and ineffective management thinking and practices (Morieux and Tollman, 2014).

To attain clarity over complicatedness, Morieux and Tollman (2014) propose several guidelines. They emphasize the importance of understanding the underlying factors influencing employee performance and promoting cooperation over competition. In terms of performance, it is suggested that organizational behaviour should be interpreted and addressed by considering the interplay among organizational structures, performance measures, incentives, systems, and subsystems that shape goals, resources, and constraints guiding actions and decision-making (Morieux and Tollman, 2014). This contextual understanding of employee behaviour helps discern what works and what does not, avoiding fragmented decisions such as restructuring, transformation, or expansion that neglect critical improvements at key points.

Regarding fostering cooperation, Morieux and Tollman (2014) advocate for the role of integrators, which should be assumed by anyone in a management position. Instead of establishing additional positions labelled as coordinators or cross-functional groups that contribute to complicatedness, integrators should drive cooperation. To assume this role effectively, certain prerequisites are necessary:

1. The management position must have the power to generate value, and its importance should be evaluated by considering the impact on team cooperation.

2. The rules imposed on the integrator role should be minimal and straightforward, enabling autonomy and judgment rather than burdening the position with activities of little value or encountering cumbersome decision-making silos.
3. The person acting as an integrator should have the freedom to set goals, establish success criteria, and evaluate and reward performance based on results, rather than being subjected to rigid mandates.

In conclusion, achieving clarity requires a combination of individual and process accountability, discipline, and integrity. As Codreanu (2016, p.97) states, "Accountability plus discipline equals integrity and results in clarity".

d) Agility

Agility relates to being “networked and flexible, lightweight, and replicable” (Barman and Potsangbam, 2017, p. 78). Agility is about enduring difficulties by flexibly and swiftly adapting to a new environment (Hinssen, 2015). Therefore, Hollingworth (2016) employs two significant metaphors to illustrate the distinctions between conventional, linear-based organizations that rely on long-term planning and agile organizations. These metaphors are expedition-style climbing and alpine-style climbing.

“Expedition style is all about identifying an outcome, and then doing whatever it takes to ensure it is won. It has a ‘summit at all costs’ mentality. Once the goal has been attained, once the climbers have returned to base camp, they can go home – the game has been won. Expedition style is extrinsically motivated, focusing only on the goal, leading to problems with goalodicy and increased exposure to the fallibilities of poor leadership. Alpine style, on the other hand, is intrinsically motivated, focusing on the task at hand. The reward is learning from the journey, rather than just the moment of attaining the goal.” (p. 178).

According to Meister and Mulcahy (2016), leadership agility encompasses two key aspects: results-focused ability and people-focused ability. In terms of achieving results, an agile leader, as outlined by Meister and Mulcahy, possesses the following qualities:

1. Transparency: The leader readily shares information and takes prompt and appropriate action based on feedback.
2. Accountability: The leader promotes a culture of learning from mistakes, takes responsibility, and clarifies expected behaviours for achieving goals.
3. Intrapreneurial mindset: The leader identifies opportunities and encourages imaginative and courageous actions from others.
4. Future orientation: The leader fosters innovation, supports experimentation, and recognizes and acknowledges contributions.

Regarding working with people, leadership agility is demonstrated by:

1. Emphasizing teamwork: The leader identifies effective team leadership behaviours, encourages teamwork, and integrates it into the human resource management system.
2. Promoting inclusiveness: The leader values and encourages diversity in employees' social and professional backgrounds.
3. Cultivating a learning culture: The leader encourages learning from both formal programs and informal channels, as well as facilitates the sharing and dissemination of information.

Holbeche (2015) highlights the barriers to agility within complex organizations that are designed to operate in stable environments. These barriers include a) Inadequacy of the conventional strategy-making process, which is outpaced by the rapidly evolving events; b) Leadership mindset shaped by short tenures, leading to passivity, risk aversion, and overanalysing; c) Conflicting departmental priorities and goals; d) Slow response times; e) Disconnection of processes from customers or each other; f) Duplication of effort; g) Lengthy decision-making processes; h) Political behaviour; and i) Lack of accountability.

2.10.3 APPLYING VUCA LEADERSHIP FRAMEWORK TO THIS STUDY

The fundamental aim of this study is to highlight the challenges affecting SMMEs in the construction industry in Maphumulo Municipality, KwaZulu Natal post covid-19 and assess intervention measures that have been employed to improve and maintain their development and

contribution to the country's economy and society at large. Therefore, the application of the Leadership Framework in VUCA will allow this study to assess intervention measures in response to the VUCA environment created by the COVID-19 pandemic. According to Codreanu (2016), the VUCA leadership framework is meant to guide leaders and organizations to develop VUCA response measures that will strategically give them influence over volatility, assist in managing uncertainty, simplify and untangle the complexity, and resolve ambiguity. In this regard, this study will assess if the developed measures reflect the best interest of the organization over that of the individual and group. Secondly, if the responsive measures have been complied with or whether compliance behaviour has been encouraged. Consequently, there are certain principles worth noting when assessing the response measures:

1. The leader must trust their instincts to make decisions, and this could be achieved when the decisions are based on professional knowledge because it is only then that setting and following a vision from a pattern-based behaviour perspective becomes possible.
2. The leader assumes accountability for their actions and thus empowers others to do the same. Therefore, this means the leader in the VUCA environment must set an example that he requires others to follow, and this becomes a keystone for attitudes and their related behaviour.
3. Leaders must talk the talk but also walk the walk. This means that for people to be able to follow, they first need to understand before they can replicate the leader's behaviour.

Therefore, in this study, the VUCA leadership model will be used to assess whether the developed measures have created a clear vision to define a strategic path, based on gathered and understood information and whether they are agile and flexible enough to adapt and navigate through the unknown.

Figure 2. 4: VUCA Framework. Source: Codreanu (2016).

Our world today and tomorrow		Mitigation activities	
V Volatile	The challenge is unexpected or unstable and may be of unknown duration, but it's not necessarily hard to understand; knowledge about it is often available	V Vision	Creating a clear vision can create a North Star to guide the business in turbulent environments and knowledge can be used to define the strategic path
U Uncertain	Despite a lack of other information, the event's basic cause and effect are known. Change is possible but not a given	U Understanding	Establishing ways of gathering and digesting information to improve basic understanding of the underlying market mechanics
C Complex	The situation has many interconnected parts and variables. Some information is available or can be predicted, but the volume or nature of it can be overwhelming to process	C Clarity	The Vision and Understanding form the foundation of creating Clarity, using the 80-20 rule; stop when 20% of the effort has provided 80% of information required
A Ambiguous	Causal relationships are completely unclear. No precedents exist; you face "unknown unknowns"	A Agility	Navigating in unknown environments require full-scale Agility and flexibility to constantly adapt and adjust

2.11 ORGANIZATIONAL RESILIENCE

Organizational resilience is the ability of a company to foresee potential outcomes, recognize risks, act proactively, create situation-specific responses, constantly innovate, cope with unexpected complexities adapt quickly to changes, and take transformative actions to benefit from unanticipated events that pose a threat to the company's survival (Duchek, 2020). Organizations are systems that function in an environment that is changing, uncertain, and dynamic (Goodman, 2020). Organizational resilience allows for effective responses to unforeseen events, recovery from crises, promotion of future success, development of strategic awareness, and competitive advantage in times of high volatility and uncertainty (Duchek, 2020). This resilience capability is crucial for organizations to succeed in managing threats, being ready to reach a new desired state, maximizing recovery time, and dealing with unforeseen circumstances (Annarelli and Nonino, 2016). Organizations require resilience capabilities to deal with, adapt to, and recover from a pandemic like the COVID-19 pandemic (Nah and Siau, 2020). Organizations must consciously increase their capacity for flexibility as a result. Adaptive skills can be learned and developed by

resilient organizations to increase future readiness. When change becomes the new normal, organizations with a resilient mindset can transform threats into opportunities, build new skills, and experience explosive growth (Burnard and Bhamra, 2011).

This resilience capacity is crucial for organizations to succeed in managing risks, being prepared to achieve an innovative desired state, optimizing time to recover, and dealing with unforeseen circumstances (Annarelli and Nonino, 2016). Organizations require resilience capabilities to deal with, adapt to, and recoup from a pandemic such as COVID-19 (Nah and Siau, 2020). Organizations must consciously increase their capacity for adaptability as a result. Adaptive skills can be learned and developed by resilient organizations to increase future readiness. When change becomes the new reality, organizations with a resilient mindset can transform risks into possibilities, build new skills, and experience explosive growth (Burnard and Bhamra, 2011). As a result, in addition to enduring the pandemic, construction companies must participate in transformative operations, take proactive steps, adapt, and be ready for the future to preserve their competitive advantage and boost their resilience. Construction companies' adoption of technology serves as the cornerstone of a strategy that will help them transform, become more resilient, and be ready for unforeseen circumstances (Syed et al., 2020).

2.12 AGILITY IN ORGANIZATIONS

The Latin word "agere," which means to move forward or to change direction quickly and easily, is the root of the English word "agile" (Online Etymology Dictionary, 2022). Agility refers to the resilience speed of an organization (Chen and Siau, 2020). Being agile means being able to recognize opportunities quickly, change course, and take evasive action (Duchek, 2020). This skill enables a person to recognize possibilities and dangers and to act quickly by imagining potential outcomes in a situation (Chen and Siau, 2020). Lean manufacturing is the foundation of agility, which has its roots in the manufacturing sector. Organizations began implementing agile methods to adapt to changes at the beginning of the 1990s (Harraf et al., 2015).

To respond fast to changes, unpredictability, and risks, these agile techniques have begun to be applied predominantly in the software sector. It has been shown that these software industry

applications boost productivity and have driven other industries to adopt agile techniques (Cobb, 2015). Organizational Agility enables people to be proactive, think tactically, embrace a creative mindset, manage change effectively, adjust to changes and turn them into advantages, and be aware of the types of changes that are happening both inside and outside of the organization. According to Harraf et al. (2015), implementing agility requires the organization's understanding, vision, entrepreneurial awareness, and proactivity. This competency relates to the capacity for speedy, accurate, and effective innovation across all organizational processes. Quick detection and reaction to opportunities and risks are capabilities of an agile organization (Chen and Siau, 2020). For growth and maintaining competitive advantage, agility is a crucial pillar (Chih et al., 2022). In today's competitive climate, speed, and responsiveness—the two key elements of agility—are essential for organizational success (Harraf et al., 2015). By empowering an organization to incorporate cutting-edge technology, organizational agility strengthens the business's competitive edge and enhances its capacity to deliver high-quality goods and services (Crocitto and Youssef, 2003).

Additionally, organizational agility allows the organization to acquire a competitive advantage by enhancing the organization's proactive action, agility, adaptability, rapid learning, and creativity in a dynamic, difficult, and frequently erratic environment of change (Appelbaum et al., 2017). Organizational agility enables organizations to immediately foresee what must be done in response to changes brought on by the present COVID-19 pandemic (Al-Omouh et al., 2020). Because of this, construction companies must embrace agile organizational skills to combat the uncertainties, challenges, and changes they encounter because of unforeseen events, such as pandemics. This will help them thrive, develop a competitive advantage, respond swiftly, adjust, and implement new technologies.

2.13 ORGANIZATIONAL ADAPTABILITY

The focus of organizational studies (Uhl-Bien and Arena 2018) is an adaptation to evolving circumstances in the environment, which is seen as essential for organizations across all industries. To gain a competitive edge and eventually thrive in increasingly complex competitive contexts,

organizations must constantly or sporadically innovate (Hauschildt et al., 2016). Wiltbank et al. (2006) further point out the strong empirical evidence in favour of adaptable organizations' increased odds of success: these organizations can outmanoeuvre rivals by seizing new opportunities fast. This may ultimately result in enhancements to an organization's competitive edge and efficiency (Brown and Eisenhardt 1997; Hurley and Hult 1998). Organizational adaptability, defined by Birkinshaw and Gibson (2004) as the ability to advance swiftly toward[s] new opportunities, to respond to volatile markets, and to avert complacency (Birkinshaw and Gibson 2004, p. 47), is a key concept that captures the idea that organizations must change. The fact that change is directed toward a particular personal objective is a characteristic shared by all of the various theories on organizational change that have been developed (van de Ven and Poole 1995). Consequently, starting change in organizations is a deliberate decision to attain a certain objective, and organizations must develop preparedness for change (Armenakis et al., 1993).

Organizational change must be managed intentionally to make an active decision (Al-Haddad and Kotnour 2015). This entails considering the necessary resources, knowledge, skills, and commitment. To put it another way, specific skills are needed to effectively oversee an organizational transformation process. Teece et al. (1997) introduced the concept of "dynamic capabilities" and developed a ground-breaking theory on the skills needed to adapt to change. According to Teece (2012), an organization's dynamic capabilities include its capacity to perceive or discover new possibilities, to commit resources to pursue those opportunities and to continually reconfigure its resources. Teece (2012) emphasizes that top leadership and management qualities are especially important for maintaining flexible capabilities and emphasizes that executive abilities—rather than organizational structures—serve as the primary foundation for these capabilities. Thus, it is believed that front-line capabilities that come from people are the capacity to recognize new chances and to take advantage of them (Birkinshaw et al., 2016). Following Teece (2012), numerous academics have claimed that leadership is responsible for enabling organizations to change (Schoemaker et al., 2018, Uhl-Bien and Arena, 2018). Positioning a company for flexibility is, therefore, primarily a leadership duty and is seen as one of the biggest difficulties facing leaders today (Uhl-Bien and Arena, 2018). It is important to comprehend the role of leadership as a key component of dynamic capabilities that allow an organization to adapt and evolve.

2.14 THEORETICAL UNDERPINNINGS OF THE STUDY

2.14.1 RESOURCE-BASED VIEW THEORY

One of the most prevalent theoretical viewpoints in the literature on strategic management is the resource-based view (RBV), which was put forth by Wernerfelt in 1984. RBV has been adopted as a crucial theory to investigate how resources can impact a corporation by increasing performance. In construction project management, RBV is commonly utilized to develop conceptual frameworks from which performance can be guided and measured (Shan et al., 2019). This study uses the RBV because it can offer crucial insights to improve research findings in project management studies, and it can give practitioners examples of project resources from an RBV perspective that are beneficial to the company.

Many academics' contributions over the past few years have contributed to the development and maturity of the RBV theory (Miller, 2019). The Resource-Based View (RBV) required twenty years (1991–2011), according to RBV pioneer Jay Barney, for it to be developed sufficiently to be referred to as a theory, which he calls Resource-Based Theory (RBT) (Miller, 2019). Since its creation in 1984, RBV has been examined, criticized, used in numerous contexts, and expanded by numerous researchers (Barney et al., 2021; Shan et al., 2019; Miller, 2019). RBV's capacity to be theoretically conceptualized and thus empirically tested is one of its advantages. As a result, academics frequently use RBV as a theoretical foundation and a lens through which to create conceptual frameworks.

The reviewed literature on RBV has identified four main RBV-CF constructs—resources, capabilities, competitive advantage (SCA), and performance. Three different sorts of variables are represented by those constructs: independent, mediators, and dependent. The RBV assumption states that the effective use of valuable resources and skills improves a corporation's performance and competitive advantages. Performance and capabilities are the dependent variables, whereas resources and capacities are the independent variables that affect them. Similarly, other factors are

needed to change how resources affect performance; capabilities and SCA act as the mediators affecting the relationship between resources and performance (Barney et al., 2021).

The Grant model is one of the most popular RBV deployment approaches in businesses (Almarri and Gardner, 2014). Grant (1991) proposes an action plan for managers to identify their resources, identify their capabilities, evaluate competitive advantage, and then implement the appropriate strategy that would better utilize these resources and skills. This approach is shown in *Figure 2.5* below. The relationship between resources and competencies and prospective competitive advantage is explained by Grant's model. If a resource is deemed to be a competitive advantage, managers should identify the resource's type, the circumstances in which they add value, newly acquired capabilities, the potential for a sustainable competitive advantage, how to use it, and the metrics to be used to gauge its impact on overall performance. If this resource increases the firm's efficacy and efficiency, it could now be categorized as valuable and scarce (Almarri and Gardner, 2014).

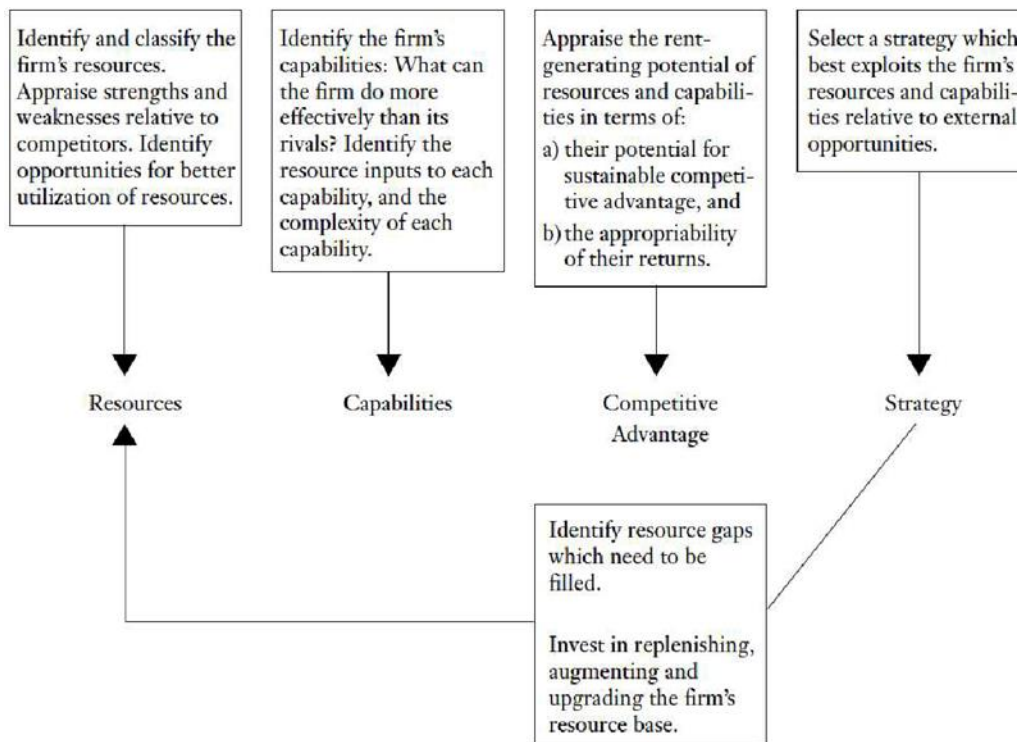


Figure 2.5: Grant's Resource-Based Approach

Company's Resources

Resources are crucial for the initial and fundamental function of the company; without them, the company would not be able to advance. The relationship between the company's resources and competitive advantage is explained and predicted by the RBV theory. According to Almarri and Gardiner (2014) and Zhang et al. (2021), in 2011, Grant was the first to posit that in RBV theory, resources and products are two sides of the same coin. The performance of the company is indirectly influenced by the resources employed in production, and returns could be raised by identifying and obtaining the important resources (Almarri and Gardiner, 2014; Zhang et al., 2021; Barney et al., 2021).

Company's Capabilities

The second RBV theoretical perspective contends that additional factors are necessary for the impact of resources on performance. Resources and capabilities were separated from the dynamic capabilities research (Almarri and Gardiner, 2014). This classification described resources as elements that were under the organization's control or ownership and could be converted into a finished good or service utilizing the machinery and assets of the organization. The ability of the organization to use resources to accomplish the intended result was defined as a capability (Grant, 1991).

Company's Performance

The RBV-most important and frequently utilized dependent variable is the company's performance. Operational performance, business performance, organizational performance, environmental performance, firm performance, and others have all been employed in the frameworks of past studies (Almarri and Gardiner, 2014; Zhang et al., 2021).

Sustainable Competitive Advantage

Even though the terms performance and competitive advantage are sometimes used interchangeably, they have different conceptual meanings. RBV was first exposed to the company's competitive advantage and SCA by Grant (1991). According to his research, a company is said to have a competitive edge when it is putting into practice an advantageous strategy that other rivals are not doing at the same time. In a similar vein, when a business employs a profitable tactic that other rivals do not simultaneously implement, and when rivals are unable to reap the same benefits, it is assumed that the firm has a persistent competitive advantage.

2.14.2 INSTITUTIONAL THEORY

This study employed Institutional Theory because of its enormous potential to offer valuable insights into entrepreneurship and the broader management discipline. In this study, Institutional Theory highlighted the entrepreneurship development or lack thereof of the construction SMMEs through the regulatory, normative, and cognitive perspectives resulting in their ability to be resilient amid and post-COVID-19 pandemic. The traditional perspective of institutional theory has primarily focused on how different groups and organizations can enhance their positions and legitimacy by conforming to the laws and standards set by the institutional environment (Meyer and Rowan, 2006; Scott, 2007). Instead of solely prioritizing efficiency-driven behaviours, the institutional theory emphasizes the regulatory, social, and cultural aspects that contribute to the survival and legitimacy of an organization (Sonkar and Sarkar, 2020). Multiple disciplines, including sociology, organizational theory, political science, and economics, have recognized various institutional influences that significantly impact the success or failure of an organization. Scott (2007) has consolidated and categorized these influences into three well-known institutional force categories.

	Regulative Pillar	Normative Pillar	Cultural-cognitive Pillar
Basis of compliance	Expedience	Social obligation	Shared understanding
Indicators	Rules, Laws, Sanctions	Certification, Accreditation	Common beliefs
Basis of Legitimacy	Legally sanctioned	Morally governed	Recognizable culturally supported

Figure 2. 6: Three Pillars of Institutional Theory (Scott, 2007).

Regulatory Pillar

The regulatory aspect of institutional forces represents a rational actor model of behaviour that emphasizes adherence to rules and conformity. It is primarily rooted in economic research and entails the use of game rules, monitoring, and enforcement to control behaviour (Sonkar and Sarkar, 2020). Regulatory elements are often derived from governmental legislation, as well as contracts and workplace standards. These regulations play a crucial role in guiding new entrepreneurial organizations and can lead to organizational and individual compliance with the law (Sonkar and Sarkar, 2020). In cases where there are no existing laws or regulations in the specific area where an entrepreneurial organization operates, it may necessitate a proactive response.

Normative Pillar

The normative pillar, the second institutional pillar, pertains to models of organizational and individual behaviour that are based on the required elements of social, professional, and organizational interaction (Sonkar and Sarkar, 2020). Institutions play a role in defining what is

considered acceptable or expected in different social and professional contexts to guide behaviour. Norms and values form the foundation of normative systems, with values representing what is desirable or considered appropriate, and norms dictating how things should be done following those values. These normative systems establish consciously observed ground rules that individuals and organizations are expected to adhere to (Scott, 2007). Normative institutions have an impact by creating a social obligation to conform, driven by social needs or expectations regarding what individuals or organizations should be doing. Some communities may encourage entrepreneurship and its financing by making it challenging but not illegal, while other societies may inadvertently inhibit it (Sonkar and Sarkar, 2020).

Cognitive Pillar

According to Scott (2007), the cognitive pillar represents models of individual behaviour that are based on subjectively and gradually constructed rules and meanings, which influence and limit appropriate beliefs and actions. This pillar draws extensively from the cognitive shift in social science, focusing on the internal mental processes and frameworks of individuals (Sonkar and Sarkar, 2020). At the individual level, the cognitive pillar is particularly evident in aspects such as culture, language, and other practices that individuals engage in regularly and often take for granted, without much conscious thought (Meyer and Rowan, 2006). In the context of how societies perceive and embrace entrepreneurship, and how they foster ideals and cultivate a cultural environment that promotes entrepreneurial activities, the cognitive pillar has become increasingly significant in entrepreneurship studies.

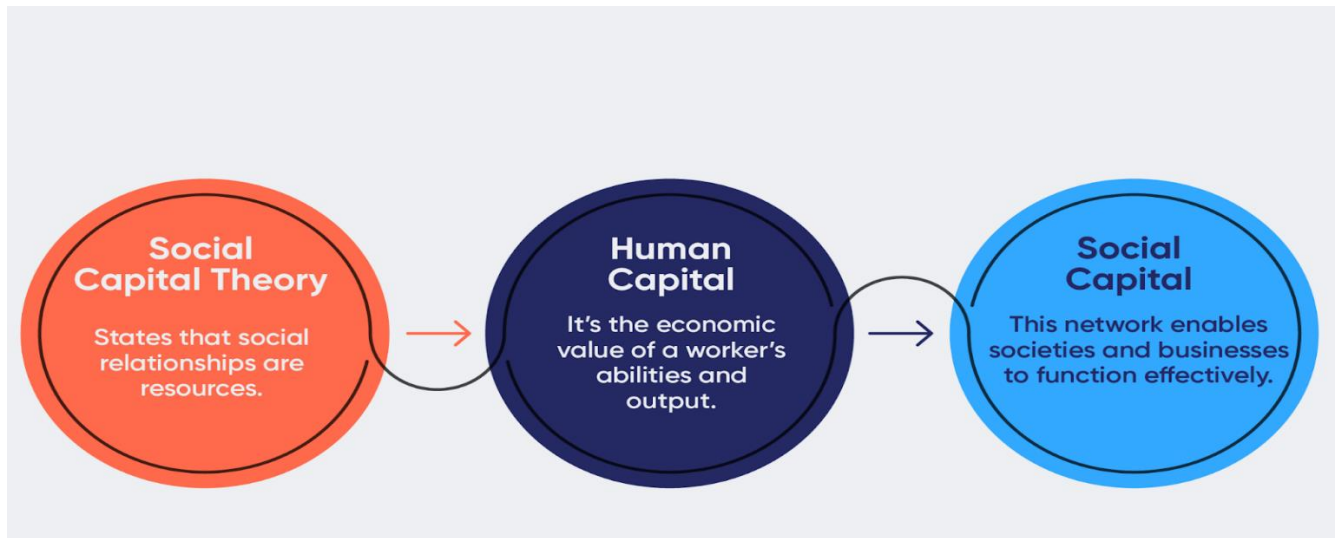
2.14.3 SOCIAL CAPITAL THEORY

Social capital, in a wide and nonessentialist sense, refers to human relationships that have the potential to be advantageous to them. Yet, a variety of methodologies and empirical operationalizations have led to different perceptions of the idea of social capital. Regrettably,

disagreements among opposing views are rarely discussed. According to Dubos (2017), the phrase "social capital" first appeared in the works of Lydia Hanifan in 1916 and Jane Jacobs in 1961, and it later reappeared in the 1970s in the writings of economist Glenn Loury. According to Loury (1977), one's success is significantly influenced by the social situation in which they are positioned. This is blatantly obvious anytime social boundaries like class or race, which shape inequities, are at work. Loury defines social capital in this context as the influence of one's social status that serves to promote or hinder the accumulation of human capital (the market-valued assets of education and skills) (Loury, 1977, pp. 175-176).

In contrast to Loury's perspective, Pierre Bourdieu (2011) was the first to construct social capital in an overtly sociological way. According to Bourdieu, capital is the accumulation of human capital that either takes on a distinct material shape or an integrated form as a component of an objective or subjective structure, the latter of which is the mind's and body's predispositions (Bourdieu, 2011, p. 98). Additionally, according to Julien (2015), Bourdieu, capital consists of both resources and power. Julien (2015) posits that Bourdieu is interested in three types of capital: social, cultural, and economic, each of which operates in a distinct sector. One of these is social capital, which includes social duties, relationships, or links and is occasionally convertible into economic capital but neither stems from nor is independent of the other forms. The ideal-typical institutionalized form of social capital is the nobility title, according to Bourdieu, which is mostly found among the socially powerful in the upper middle class or haute bourgeoisie (Bourdieu, 2011, p. 98). Conversely, those in lower social classes lack capital, including social capital.

Figure 2.7: Social Theory



Through network integration, social capital is produced intentionally. Social capital does not take on a particular physical form as economic capital does. It is also marked by a degree of ambiguity, which leaves room for things like a lingering sense of vague duty. Similar to social structures, social capital is in a way "suspended" in space. According to Bourdieu (2011), this is a necessary component of social capital. It would just be a series of typical nonmarket transactions if it were explicit and specific. Shell et al. (2020, p. 90) posit that according to Bourdieu, social capital is "the sum of active or potential resources that are connected through the ownership of a network of long-standing relationships of mutual recognition and acquaintance that are more or less institutionalized, or, in other words, with the inclusion into a group". Each member of a group receives "the backing of the collectively owned capital, a 'credential' that qualifies them to credit in the different senses of the word" because of their participation (Shell et al., 2020, p. 103). It is important to note that the agent of action is a unique member of the group. A minimal level of homogeneity is required for transactions between group members, and the benefits of membership serve as the foundation for the solidarity that enables such transactions. Bourdieu firmly believes that to maintain group cohesion, the reproduction of social capital necessitates a continuous effort of "sociability" and continuous recurrent interactions during which members' mutual recognition is confirmed (Bourdieu, 2011, p. 97).

2.15 RELEVANCE OF THESE THEORETICAL FRAMEWORKS

This study used the Resource Based Theory, Institutional Theory and Social Capital Theory as the guide on which to build and support this study. These theories guided this study to highlight various avenues from which the challenges affecting SMMEs in the construction industry in Maphumulo Municipality, KwaZulu Natal post-COVID-19 can be understood and mitigated.

(a) The Resource Based Theory

The Resource Based Theory assisted this study to investigate how the use of resources can be managed and used to impact a corporation in response to a volatile business environment amid and post-COVID-19. In this regard, the Resource Based Theory encouraged the identification of the construction companies' key resources, which included tangible assets such as equipment, and infrastructure and human capital such as skilled labour. Thus, the study was able to assess what specific resources small to medium construction companies in Maphumulo Local Municipality possess or lack. Secondly, the Resource Based Theory allowed for this study to be able to analyse which resources are truly unique and valuable for construction companies in responding to the volatile business environment created by COVID-19 and explore how these companies are integrating their resources (e.g., technology, skilled workforce, financial assets) to adapt to the challenges posed by the pandemic. Thirdly, this framework allowed for an investigation of the strategies employed by construction companies to make the most of their available resources during and after the pandemic and how they effectively leveraged their resources to better equip them in withstanding the volatile business environment and whether this leads to improved performance. Lastly, the Resource Based Theory assisted in assessing whether the strategies employed by these companies in response to COVID-19 have the potential for long-term sustainability or not. Therefore, applying the Resource-Based Theory to this study, provided a theoretical framework to analyze how small to medium construction companies are managing and leveraging their resources in response to the volatile business environment created by the pandemic. This offered valuable insights into their competitive strategies and their ability to adapt and thrive in challenging times.

(b) The Institutional Theory

The Institutional Theory highlighted the entrepreneurship development of SMME construction companies using the regulatory, normative, and cognitive perspectives resulting in their ability to be resilient amid and post-Covid-19 pandemic. In this regard, Firstly, the Institutional Theory assisted this study in exploring how these companies comply with new regulations and adapt their business practices to remain operational; examined the legal challenges faced by these companies, such as obtaining permits, licenses, or complying with health and safety regulations and navigating these regulatory hurdles; and explored whether these companies seek legitimacy by aligning their operations with government mandates. Secondly, the Institutional Theory assisted this study in examining whether there are shared expectations within the industry regarding business practices, safety protocols, or ethical conduct during the pandemic; and explored how these companies leverage professional networks and industry associations to access information, resources, and support; and analysing how peer companies and stakeholders influence the decisions and actions of SMME construction firms in Maphumulo. Thirdly, through the use of the Institutional Theory, this study was able to investigate the perception of SMMEs construction companies' perceptions of risk, opportunity, and resilience in the context of COVID-19. Lastly, this theory made it possible for this study to analyse how SMME construction companies interpret and make sense of the pandemic and its implications and explore how these cognitive processes shape their strategic responses and decisions. This approach assisted in providing valuable insights into the dynamics of institutional influences on these businesses and how they navigate the challenges of the post-pandemic era.

(c) Social Capital Theory

Social Capital Theory highlighted how relationships between SMME construction companies, and the Maphumulo Local Municipality can be harnessed to potentially attain the SMMEs' recovery goals post-COVID-19. In this regard, Social Capital Theory provided a nuanced understanding of how the relationships between SMME construction companies, and the Maphumulo Local Municipality influence the attainment of recovery goals in the post-COVID-19 period. This approach will shed light on the role of social networks, trust, and cooperation in building resilience and capitalizing on collective resources for the benefit of these businesses and the local

community. Therefore, this theory allowed for the study to investigate how relationships and interactions among SMME construction companies themselves contribute to their collective recovery goals. Analysed whether there was mutual support, knowledge sharing, or collaboration among these companies. Assessed the level of trust and cooperation among SMMEs in Maphumulo. Explored how strong intra-industry ties can foster resilience and recovery, enabling them to jointly navigate post-pandemic challenges. Examined the nature of relationships between SMMEs and the Maphumulo Local Municipality. Analysed whether these relationships facilitate access to resources, information, or support mechanisms. Investigated whether SMMEs use their connections with the municipality to access broader networks, including other government agencies, industry associations, or potential clients. Explored how these external linkages can aid in post-COVID-19 recovery efforts. Explored the role of the local municipality as a conduit to higher levels of government support, such as grants, incentives, or relief programs. Analysed whether SMMEs have been able to access these resources effectively through their relationships with the municipality. Investigated whether SMMEs have the capacity to advocate for policy changes or reforms at the local or regional level through their connections with the municipality. Assessed whether these efforts align with their recovery goals. Analysed how SMMEs used their social capital to access critical information about economic recovery opportunities, market trends, and regulatory changes. Evaluated whether information sharing within their networks contributes to resilience. Investigated whether SMMEs leverage their social capital to secure funding or financial support, either through direct assistance from the municipality or through introductions to financial institutions or investors. Lastly, examined whether SMMEs engage in joint projects or initiatives with the municipality to address common recovery goals. Assessed the outcomes of such collaborative efforts and their impact on the broader community.

The integration of these theoretical frameworks allowed this study to comprehensively look at the resilience of the SMMEs in the construction industry within the VUCA environment from various angles including the management efficiency improvement, use of skills and resources, the impact of government support and legislation, and collaborations at an organizational and community level that have the potential to be advantageous to them.

2.16 CHAPTER SUMMARY

The reviewed literature has highlighted the well-documented challenges facing the SSMEs in South Africa in all sectors including the construction industry. Likewise, it has outlined the challenges and issues encountered by the construction industry at large. However, the VUCA environment affected by the impact of COVID-19 in the SMMEs within the construction industry has not been extensively documented. Moreover, the literature outlined the inability of the SMMEs and the construction industry at large to develop responsive measures to deal with the challenges of the new environment. In this regard, the literature proposed three theoretical frameworks underpinning this study from which leaders in SMMEs within the construction industry can use to assess if they have developed effective responsive measures. The subsequent chapter outlines the research methodology focusing on the research design, techniques, approaches, and strategies that are employed to collect data and analyse the study results.

CHAPTER THREE: RESEARCH PHILOSOPHY AND METHODS

3.1 INTRODUCTION

The research philosophy is the worldview that the researcher uses to view the reality of the study (Creswell and Creswell, 2018). A research philosophy forms a philosophical stance that the study is rooted in to determine the theoretical, conceptual, and methodological naturalism of the study (de Vos et.al, 2011). According to Lincoln and Guba (1985), a research philosophy comprises four essential elements: epistemology, ontology, methodology, and axiology. These components encompass the underlying assumptions, beliefs, norms, and values upheld by each research paradigm. It is vital to gain a comprehensive understanding of these components as they shape and guide the nature of your research. The idea is that by aligning your research within a specific research paradigm, your study will be grounded in and guided by the paradigm's fundamental assumptions, beliefs, norms, and values. This study adopted the interpretivism philosophy. Interpretivism is a worldview attributed to subjective inquiry rooted in understanding and believing that participants give their understanding of the reality, or the researched problems based on their understanding and interaction with the environment or setting (Ary et al., 2018). Interpretivism's stance is adopting a phenomenological approach (Creswell and Creswell, 2018). The rationale for the interpretive approach is that human beings are engaged in the process of making sense of their own experiences and “worlds” and progressively engage, interpret, give meaning, redefine, and justify their day-to-day interaction with reality (de Vos et al., 2011). Hence, this study extracted knowledge from the participants' perceptions and experiences within their natural settings about the phenomenon under investigation. The interpretivism philosophy makes four presuppositions: a subjectivist epistemology, a relativist ontology, a naturalist methodology, and a balanced axiology.

3.2 SUBJECTIVIST EPISTEMOLOGY

According to Cooksey and McDonald (2011), epistemology pertains to the nature of knowledge in the real world, encompassing how we acquire knowledge, discern truth or reality, and understand phenomena. It delves into the fundamental aspects of knowledge, including its nature, forms, methods of acquisition, and means of dissemination. Epistemology explores the types of knowledge and understanding that researchers or individuals can acquire to enhance their comprehension within their research domain. Davidson (2001) emphasizes the significance of epistemology in establishing the researcher's confidence in their data and shaping their approach to understanding the social context under investigation. In this study, a subjectivist epistemology was adopted, which asserts that the researcher interprets their findings based on their own reasoning and cognitive processes, influenced by their interactions with participants. It assumes that the researcher constructs knowledge within a social context, drawing from their real-world experiences in the natural environments being studied (Punch, 2013). The researcher and the subjects engage in interactive processes involving conversations, questioning, listening, reading, writing, and recording research findings.

3.3 RELATIVIST ONTOLOGY

The philosophical field of ontology focuses on the assumptions we make to accept something as true or meaningful and the inherent nature or essence of the social reality being examined (Scotland, 2012). By employing ontology, researchers can evaluate their underlying beliefs and philosophical frameworks regarding the nature of reality, existence, and being. Understanding how one interprets acquired information requires an understanding of the philosophical assumptions concerning the nature of reality. These assumptions, concepts, or assertions help shape thoughts about the research problem, its relevance, and possible approaches to address it, respond to the research question, grasp the issue at hand, and contribute to its resolution (Scotland, 2012). In this study, a relativist ontology was adopted, meaning that the researcher assumed the existence of multiple realities in the situation under study. It was also assumed that these realities could be

explored, given meaning, or reconstructed through interactions between research participants and the researcher (Kivunja and Kuyini, 2017). Thus, in this study, the interaction between the researcher and the study participants is fundamental and guided by these assumptions.

3.4 NATURALIST METHODOLOGY: QUALITATIVE RESEARCH METHODS

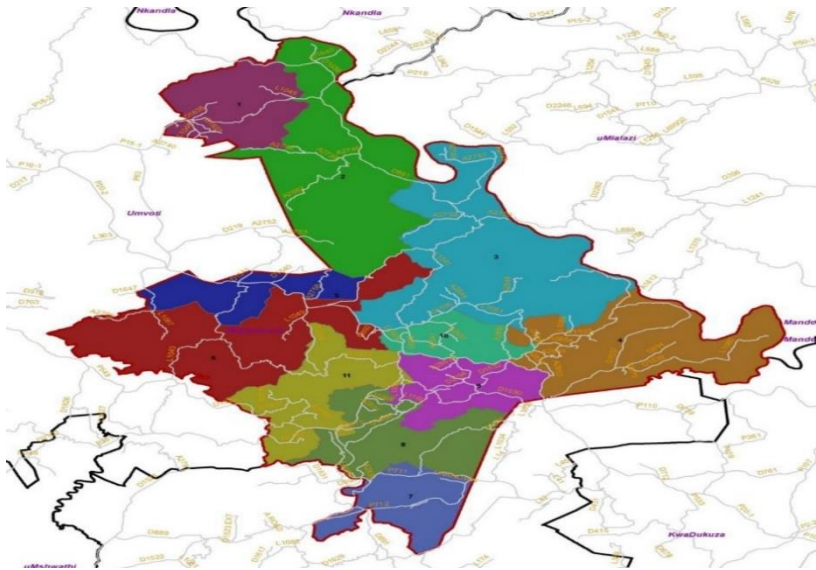
The term "methodology" refers to the overall study design, methods, approaches, and processes employed in a well-planned investigation to gain further knowledge (Chepp and Gray, 2014). It encompasses various aspects such as data collection, participants, tools used, and data analysis. The methodology outlines the logical and systematic procedures used to conduct a research project and delve deeper into a research problem. In this study, a qualitative research method was employed (Chepp and Gray, 2014). In-depth interviews were conducted with small, medium, and micro enterprises (SMMEs) owners in the construction industry within Maphumulo Local Municipality to understand the impact of COVID-19 on these SMMEs. The methods used in this study were based on a naturalistic methodology, where the researcher acted as a participant observer and gathered information through discussions, conversations, texts, and reflection sessions. Thus, the researcher examined the perceptions and lived experiences of SMMEs in the construction sector regarding the challenges they faced after COVID-19 and the impact of intervention measures. Purposive non-probability sampling was utilized, and semi-structured interviews were conducted. Thematic content analysis was employed to analyse the data. This chapter provides a detailed overview of the research setting, research paradigm, research design, data collection, data analysis, and the trustworthiness of the data.

3.4.1 RESEARCH SETTING

As stated in the Municipal Profile (2021), Maphumulo Local Municipality (KZ294) is one of the four local municipalities situated in the iLembe District Municipality (DC29). Maphumulo Local

Municipality is mainly characterized as a rural municipality and is geographically bordered by the Tugela River to the north, stretching around 30km to its southern boundary with Ndwedwe Local Municipality (KZ293).

Figure 3.8 Maphumulo Local Municipality Map (Municipalities of South Africa, 2021)



The municipality is positioned along the R74 Road, which connects KwaDukuza and Kranskop. It shares its southern border with Ndwedwe and is accessible through the P711 route. The primary administrative centre of Maphumulo Municipality is the town of Maphumulo itself, situated approximately 38km northwest of KwaDukuza Municipality. With a population of 89,969 individuals, Maphumulo Municipality is home to 20,524 households. The working-age population, comprising individuals aged between 15 and 65 years, accounts for 51% of the total population, while the children population (0-14 years old) makes up 39%. The municipality is largely characterized by its rural nature, with agriculture serving as the dominant economic activity. As such, approximately 50% (10,048) of households engage in agricultural pursuits.

Land ownership in the area is primarily associated with the Ingonyama Trust, followed by private ownership, while only a small portion is directly controlled by the municipality. Maphumulo boasts numerous tourism opportunities, including natural attractions such as the UThukela,

UMvoti, and Die Kop Mountain, which are major rivers in the region. The municipality also possesses cultural resources, including nine Iron Age sites, historical landmarks like Cetshwayo's grave, and a significant battlefield site from the Bambatha Rebellion where Shaka defeated Zwide of the Ndwedwe clan, known as itshe lika Ntunjambili.

3.4.2 RESEARCH DESIGN

Maxwell (2012) suggests that the research design encompasses the researcher's overall strategy for effectively addressing the research problem by integrating various study components coherently and logically. Similarly, de Vos et.al (2011) describe the research design as a blueprint or plan that outlines the study's roadmap and methodology framework. In line with these perspectives, this study adopts a qualitative research design. The design is descriptive and exploratory, aiming to describe and explore the perceptions and lived experiences of SMMEs within the construction sector regarding the challenges they have encountered post-COVID-19 and the impact of intervention measures. The rationale for selecting this design is its ability to provide a comprehensive understanding of participants' viewpoints on a specific phenomenon (Creswell and Creswell, 2018).

3.4.3 CONTEXT OF THE STUDY

According to Creswell and Creswell (2018), qualitative research allows for the participant's experiences to be understood within their natural environment. This means that qualitative research explores theories, experiences, and perceptions by understanding the meaning that participants make of their phrases, words, and actions (Creswell and Creswell, 2018). Therefore, the context of the research is captured in its entirety without any attempt by the researcher to control it. In this regard, the researcher conducted the interviews at the SMMEs' company offices at Maphumulo Local Municipality. The phenomenon was observed in its natural setting.

3.4.4 DESCRIPTIVE

Semi-structured interviews were employed as a means of gathering precise information from the participants. Through these interviews, participants provided detailed descriptions of the phenomenon, enabling the researcher to gain a deeper and more comprehensive understanding of it. The primary aim of these descriptions was to effectively capture and emphasize the challenges that have impacted SMMEs in the construction industry within Maphumulo Local Municipality, KwaZulu Natal, in the aftermath of the COVID-19 pandemic.

3.4.5 EXPLORATORY

According to Creswell and Creswell (2018), an exploratory study explores the dimensions of a phenomenon looking to expand or add to the existing information on the phenomenon of interest. The focus of an exploratory study is the “what” aspect of the phenomenon. According to Aspers and Corte (2019), this means that the study identifies facts associated with the phenomenon. In this regard, the researcher explored the literature and participants’ perceptions on the impact of intervention measures that have been employed to gain more relevant information about the phenomenon. Accordingly, the researcher open-mindedly approached the study without predetermined notions but intended to expand knowledge and provide new information about the phenomenon of interest.

3.4.6 DATA COLLECTION INSTRUMENTS

Qualitative research employs a range of techniques and instruments, such as controlled focus groups, interviews, and observations, to gather data and address specific research questions (Ary et al., 2018). In this study, data were collected through semi-structured interviews that involved open-ended questions, conducted with SMMEs operating within the construction industry in Maphumulo Local Municipality. The decision to utilize semi-structured interviews was based on their ability to provide a framework of key questions for exploration while also allowing flexibility

for the interviewer and interviewee to delve into specific ideas or responses in greater detail (Gill et al., 2008). Furthermore, the use of uncontrived semi-structured interviews facilitated the discovery and elucidation of information that was significant to the participants but may not have been previously considered in the research process (Gill et al., 2008).

3.4.7 STUDY POPULATION

Hanlon and Larget (2011) define the study population as encompassing all the individuals or units that are of interest. Creswell and Creswell (2018) suggest that the target population refers to the entire group to which the researcher intends to generalize the study's findings. In the context of this research, which aims to investigate the challenges imparted by COVID-19 and the resilience within the VUCA environment of SMMEs in the construction industry in Maphumulo Local Municipality, the target population comprises all the SMMEs operating within the construction sector in Maphumulo Municipality. Thus, in this study, the target population is characterized by being composed of SMMEs within the construction sector who are located within the geographic area of Maphumulo Local Municipality and share similar characteristics.

3.4.8 SAMPLING TECHNIQUE

Different sampling techniques are available for research purposes, but in this study, a purposive sampling technique was utilized. The purposive sampling technique is a non-probability sampling approach commonly employed in qualitative research to select cases that provide rich and relevant information while making efficient use of limited resources (Palinkas et al., 2015). Given that the objective of this study is to gain a better understanding of the phenomenon being investigated, it was crucial to select a sampling technique that would yield the most pertinent data.

In line with this rationale, the researcher exercised their discretion to purposively select participants for inclusion in the study, based on their understanding of the target population. This approach aligns with the qualitative principle of gathering relevant information from a suitable

number of experts, which a random and unbiased sample would not have achieved (Ingham-Broomfield, 2014). Specifically, participants were chosen from SMME companies operating within the construction sector. These individuals were selected due to their knowledge and experience relating to the phenomenon under investigation.

3.4.9 EXCLUSION AND INCLUSION CRITERIA

SMME companies within the construction sector were chosen because of the knowledge and experience they possess about the phenomenon under investigation. Thus, the inclusion criteria focused on construction companies classified as SMMEs, who have been in operation for more than five years before the start of COVID-19 in 2020, who are registered with the Maphumulo Local Municipality database, and who owned by any gender, age, or ethnicity. The exclusion criteria meant that construction companies not classified as SMMEs and those classified as such but had not been five years old in 2020 and not registered with the Maphumulo Municipality were not considered for this study.

3.4.10 RECRUITMENT, SAMPLE SIZE AND DATA COLLECTION

The Maphumulo Local Municipality was requested to provide a database of registered construction companies within the municipality. The researcher identified twelve SMMEs fitting the research criteria that were approached and interviewed. However, data saturation was attained from those twelve participants thus only they were sampled for participation in this study. Participants were allowed to make informed consent as they were briefed about the study and given a letter of consent which explained the nature and aim of the study. In this regard, all the participants consented to participate in this study and understood that their participation was voluntary and without coercion. Further communication was made with them to set up appointments for interviews.

Furthermore, the consent form also included a request for permission to tape-record interviews. Therefore, all the interviews were audio recorded to enable transcription during analysis while field notes were manually written down. The researcher transcribed the audio-recorded interviews for proper data analysis. Transcribing refers to the process of writing down audio records after the interviews (Flick, 2018). Moreover, according to De Vos et al. (2011), tape recording interviews helps the researcher to concentrate on what is being said in the interviews and as a result could think about a follow-up question.

To maintain and uphold transparency, the researcher issued an interview schedule to all the participants. The interview schedule was designed to assist the participants in better preparing for the interviews and provide in-depth and rich information as they would have had time to prepare for the interview. Furthermore, the participants were interviewed in the privacy of their offices and premises. The semi-structured, one-on-one interviews were used to extract in-depth information and their level of flexibility. The interviews were conducted over about two weeks with each interview lasting between 30-45 minutes.

3.4.11 QUALITATIVE DATA ANALYSIS TECHNIQUE

The analysis involves organizing data to gain a better understanding of behavioural patterns within the target population. Data analysis occurs after data collection and aims to identify relevant categories, relationships, and patterns pertinent to the study (Smith and Firth, 2011). Qualitative data analysis encompasses various techniques, such as content analysis, narrative analysis, discourse analysis, thematic analysis, grounded theory (GT), and interpretive phenomenological analysis (IPA), each with its advantages, disadvantages, and purposes (Creswell and Creswell, 2018). In this study, thematic analysis was employed to analyze the qualitative data. The thematic analysis involves identifying passages of text that share common themes or ideas, categorizing the text into themes, and establishing a thematic framework (Vaismoradi and Snelgrove, 2019).

To develop themes, the coding process was employed in this study. Audio recordings of the interviews were transcribed to ensure accurate information capture, and the transcriptions were subsequently coded into themes. Coding involves associating data with themes, ideas, or categories

by assigning code labels to similar text passages, facilitating retrieval for further comparison and analysis (Vaismoradi and Snelgrove, 2019). Initially, the researcher identified themes relevant to the main research objectives, and codes were then assigned to these themes to organize and retrieve data. The resulting themes were presented in a contextualized narrative from the subjective viewpoint of the participants, allowing exploration of their perceptions within their business environments and through their experiences (Vaismoradi and Snelgrove, 2019). Similarities and differences among the interviews were identified, leading to the development of typologies. The researcher summarized the themes in a convenient order, organizing them into connected paragraphs. The interpretive approach, data analysis approach, and theme generation process are comprehensively discussed in Chapter Four of the study.

3.4.11.1 DATA ANALYSIS PROCESS

Denzin and Lincoln (2000) argue that to effectively interpret data, researchers must separate themselves from biases related to their worldview, knowledge, attitudes, values, behaviours, and beliefs. This separation allows researchers to acknowledge the experience of living between the familiar and the unfamiliar, referred to as the "liminal" experience. This liminal experience inspires researchers to approach data review with adaptability, openness, improvisation, and creativity, as well as planning and adherence to procedures and guidelines (Denzin and Lincoln, 2000). De Vos et al. (2005) suggest that data analysis involves reorganizing and transforming data into meaningful findings, establishing order and structure. However, they note that the analytical process is not straightforward and linear; instead, it follows a helical process that includes synthesizing information, reducing information volume, selecting and eliminating information, identifying patterns and trends, and creating a framework to convey the essence of the data.

Qualitative research is distinguished by its inherent connection between data collection and data analysis (de Vos et al., 2005). In this study, as the data was transcribed and translated, the researcher observed patterns of expression that prompted them to look for consistent or inconsistent themes as more data emerged. It is important to note that data analysis alone does not provide answers to research questions; instead, answers are found through the interpretation of the analyzed data (Kruger, de Vos, Fouché and Venter, 2005). Interpretation involves explaining and making sense of the data, and it is closely intertwined with the analysis process. Consequently, the

researcher's continuous engagement with the process is essential (Kruger et al., 2005). Through the integrated process of data collection and analysis, this study achieved a credible and consistent interpretation of the findings.

3.4.12 TRUSTWORTHINESS OF DATA

According to Creswell and Creswell (2018, p.124), trustworthiness is defined as “the truth value of the findings of the study”. Accordingly, Aspers and Corte (2019), posit that trustworthiness speaks to the consistency, stability, and repeatability of the collected data from the participants. It reflects the researcher's ability to collect and record information. In this study, the trustworthiness of the collected data was determined by ensuring data credibility, interview technique, transferability, dependability, and confirmability.

(a) VALIDATION

To ensure credibility and minimize ambiguities while capturing accurate information, the researcher conducted the transcription and translation processes independently. All transcripts were carefully reviewed to validate the findings and ensure that essential themes derived from the participants' interviews were accurately represented. Through this iterative process, the fundamental theme emerged as a result.

(b) CREDIBILITY

Credibility when conducting research is defined as “an act of conducting inquiry in such a manner as to ensure that participants were identified and described for the study to show that the inquiry is credible to the constructors of the original multiple realities” (Walby, 2015, p. 400). In this study, the researcher guaranteed the credibility of the gathered information by selecting the SMMEs within the construction sector at the Maphumulo Local Municipality as the study population.

Furthermore, the researcher used some of his colleagues to verify the credibility of the study's findings. The completed version of the study was also shared with the participants to confirm if the reported findings were aligned with their experiences. Furthermore, the interviews were not rushed, which allowed for a prolonged engagement between the researcher and the participants thus ensuring the credibility of the findings. Lastly, the literature review was conducted to cross-check the findings from the participants and increase credibility.

(c) INTERVIEW TECHNIQUE

The interview schedule was based on the broader research question, which ensured that all the research schedule questions were aligned with the main research question and could extract relevant information from the participants. In this regard, the broader research question was asked, followed by themes in an interview schedule. The semi-structured interview schedule was designed to allow the participants an opportunity to express themselves more freely and extensively. The research questions were also checked by the supervisor before fieldwork.

(d) TRANSFERABILITY

Transferability in qualitative research refers to the extent to which the findings can be applied or generalized to different contexts or situations. This concept, as described by Kane and Trochim (2009) and Rose and Johnson (2020), highlights the need for researchers to provide a comprehensive explanation of the research background and the underlying assumptions. In this study, transferability was ensured by providing a detailed description of the population, sample, and research context, thus enhancing the potential applicability of the findings beyond the specific study setting.

(e) DEPENDABILITY

Dependability, as defined by Walby (2015), refers to the researcher's effort to account for changes in the phenomenon under study and in the research design. In this study, to ensure the dependability of the findings, data verification was conducted by including officials from the Department of Small Business Development and Black Economic Empowerment as participants. These officials possess significant knowledge and expertise related to SMMEs, thereby enhancing the confirmability of the findings. The inclusion of these participants aligns with the criterion of dependability, which is a measure of trustworthiness in qualitative research, as highlighted by Speziale, Streubert, and Carpenter (2011). This criterion contributes to securing the credibility of the findings.

(f) CONFIRMABILITY

Confirmability is a criterion used to assess the quality of data in research. It is achieved when multiple independent individuals reach a consensus that the data is consistent, indicating that the findings are unbiased (Aspers and Corte, 2019). In this study, confirmability was established by involving officials from the Department of Small Business Development and Black Economic Empowerment to verify the data collected from SMMEs within the construction sector. The researcher and the officials agreed that the data exhibited similarity, reflecting a state of neutrality. Neutrality in this context refers to the data being free from bias, rather than the researcher's neutrality. The purpose of confirmability is to demonstrate that the evidence and reasoning behind the researcher's conclusions would lead another researcher to arrive at the same findings within the research context (Speziale, Streubert, and Carpenter, 2011).

3.5 AXIOLOGY: ETHICAL CONSIDERATIONS OF THE STUDY

The term "axiology" refers to the ethical and moral considerations that must be taken into account when conducting research. It encompasses the philosophical framework used to arrive at ethical and worthwhile conclusions (Killam, 2013). Axiology involves establishing, evaluating, and understanding the concepts of appropriate and inappropriate behaviour in research. It encompasses the values assigned to various aspects of the research, including the participants, the data, and the intended audience for the research findings (Killam, 2013). In essence, it addresses the nature of ethics and ethical behaviour. Therefore, this section discusses the ethical considerations relevant to this study to uphold and adhere to the ethical standards outlined in research guidelines and arrive at ethical conclusions.

The research proposal for this study obtained ethical clearance from the University of KwaZulu Natal's Research Ethics Committee. Additionally, letters from relevant gatekeepers were obtained to demonstrate legitimate access to the participants. A gatekeeper letter is a permission letter granted by an institution that acts as an intermediary between the researcher and potential participants (Woods and Sikes, 2022). In this study, permission was granted by the Municipality authorities to conduct the research in Maphumulo Local Municipality. Participants in the study were provided with information about the nature, objectives, and steps involved in the research. They were given a consent form to sign, granting voluntary participation in the study without coercion. Participants were informed that they could withdraw their consent at any stage during or after the interviews without facing any penalties or adverse consequences. The establishment of informed consent aims to ensure voluntary participation (Silverman, 2014).

Throughout the study, participants were treated with respect, and their confidentiality was protected. Measures were taken to ensure the privacy of participants. Privacy involves maintaining anonymity in the research process and safeguarding participants' personal information from public exposure (Woods and Sikes, 2022). In this research, participants were not asked for or required to provide personal details or sensitive information as part of the interview schedule. Participants were also informed that the study was for academic purposes, and upon completion, the data would be securely stored in the supervisor's office for five years before being destroyed. However, upon request, the findings would be shared with the participants.

3.6 CHAPTER SUMMARY

This chapter outlined the research methodology underpinning this study's enquiry. In this regard, it detailed the research setting, research paradigm, research design, data collection, data analysis, the trustworthiness of data, and ethical considerations. The study context, sample size, techniques and criteria were also outlined in detail. In the subsequent chapter, the collected data will be analysed, discussed, and presented.

CHAPTER FOUR: RESULTS OF THE STUDY ANALYSIS

4.1 INTRODUCTION

This chapter presents the key study findings extracted and generated through the qualitative methods and procedures of data collection mentioned and justified in the previous chapter. The prominent qualitative data in this study was predominantly sourced from face-to-face semi-structured interviews. Therefore, this chapter will thematically present the findings from the interviews featuring, prominently, the participants' voices. The themes that emerged from the extracted and generated data were synthesised concerning the reviewed literature and underpinning theories. All the themes are categorized and presented under the following four objectives, namely: (a) To identify the Challenges Faced by SMMEs in the Construction Industry During and Post COVID-19 in the Maphumulo Local Municipality; (b) To assess the resilience capacity shown by SMMEs in the Era of COVID-19 to Weather the VUCA Crises; (c) To explore SMME Construction Sector Managers' Agility and Adaptive Style for Managing their Company Resources during COVID-19; and (d) To examine Various Recovery Strategies used by SMME Construction Sector Managers to recover from a VUCA Environment created by COVID-19.

4.2 INTERPRETIVE APPROACH

This study analysis employed an interpretive approach in analysing its data. According to Punch (2013), this is when the researcher seeks to contextually narrate the findings generated from the subjective viewpoint of the participants. Therefore, in this study, the researcher explored the perceptions, insights, knowledge and lived experiences of the SMMEs within the construction sector on the challenges they have faced amid and post-COVID-19 pandemic, their efforts to stay resilient in the face of adversity and the impact of the intervention measures employed to recovery post-pandemic. This approach comprehensively highlights the localized interpretation of

participants, which gives meaning to their experiences and conceptual structures that inform their actions and narratives. The interpretive approach made it possible for this study to explore the participants' insights, perceptions, and familiarities within their business environments and through the lens of their experiences and encounters. Considering that this approach allowed the researcher to interpret the findings using their own reasoning and cognitive processing, which is influenced by their interactions with participants, the researcher was sensitive to what the participants had to say as that was important to them and their attributions of meaning. Furthermore, the researcher was cognisant of their own biases which might have contaminated the analysis of results. Therefore, the researcher maintained continuous self-reflection and reflexivity during the analysis process, which fundamentally assisted in the illumination and reformulation of data (de Vos et al., 2005).

4.3 PARTICIPANTS' DEMOGRAPHIC PROFILE

	Sex	Education	Portfolio	Years in the Organization
Participant 1	Male	Matric	CEO	1-5 years
Participant 2	Male	Matric	CEO	1-5 years
Participant 3	Male	Not Provided	CEO	10 years +
Participant 4	Male	Degree	CEO	10 years +
Participant 5	Male	Degree	CEO	1-5 years
Participant 6	Male	Degree	CEO	10 years +
Participant 7	Female	Degree	CEO	1-5 years
Participant 8	Female	Degree	CEO	5-10 years
Participant 9	Male	Grade 11	CEO	1-5 years
Participant 10	Male	Not Provided	CEO	5-10 years
Participant 11	Male	Grade 10	CEO	5-10 years
Participant 11	Male	Matric	CEO	1-5 years
Participant 12	Female	Matric	CEO	1-5 years

Table 4. 1: Demographic Profiles

The demographic profiles of SMME (Small, Medium, and Micro Enterprises) construction company CEOs in the Maphumulo Local Municipality, as presented, offer valuable insights into the leadership landscape within the construction sector in this specific region.

Firstly, it is noteworthy that the sample predominantly comprises male CEOs, with a total of nine out of twelve participants being male. This indicates a gender imbalance in the leadership roles within the SMME construction sector in the Maphumulo Local Municipality. This observation aligns with broader gender disparities in the construction industry, where women are often underrepresented, reflecting potential opportunities for initiatives that promote gender diversity and inclusivity.

Secondly, the educational qualifications of the CEOs in this sample are quite diverse. It includes individuals with Matric (Grade 12), Grade 11, and unspecified educational backgrounds, but it is promising to see a significant proportion (approximately half) of the CEOs holding a degree. This suggests that education, particularly having a degree, is a significant pathway to leadership positions in the construction industry in the region.

Years of experience among the CEOs also show variation, with some having relatively shorter stints (1-5 years) and others having spent a considerable amount of time (10 years or more) in their respective roles. This spread implies that the SMME construction sector in Maphumulo offers opportunities for both newcomers and seasoned professionals, which can be viewed as a positive characteristic of the local business environment.

However, the data also highlight a lack of information for a couple of participants regarding their educational backgrounds, which might indicate a need for better record-keeping or data-collection practices in the local business community. This can be addressed through improved data reporting and information-gathering mechanisms.

In conclusion, the demographic profiles of SMME construction company CEOs in the Maphumulo Local Municipality present a picture of gender imbalance, diverse educational backgrounds, and varying levels of experience. Understanding these demographics is essential for local stakeholders, such as business associations and government agencies, to tailor their support and development initiatives to ensure a more inclusive and thriving SMME construction sector in the region. Promoting gender diversity, improving education and skills development, and enhancing data collection practices are potential areas for focus in fostering the growth of this vital sector.

4.4 GENERATING THEMES: PARTICULARITIES, GENERALIZATIONS AND CONDENSATION

The researcher carefully examined the transcripts to gain a comprehensive understanding of the participant's responses. Specific details were scrutinized to extract meaningful insights from the interviews (de Vos, 2005). The focus was on identifying what participants felt strongly about and what expressed the strongest emotional content, as these aspects were indicative of their shared experiences (Johnson-Hill, 1998, p.33). By identifying recurring patterns and commonalities, the researcher identified key themes and recurrent notions that connected the participants, which is considered the most intellectually demanding stage of data analysis (de Vos, 2005).

Balancing the preservation of each participant's unique expression with the emergence of broader meanings, interpretations, and implications in the form of common themes posed a challenge (Falmagne, 2006). The research findings were not meant to be a collection of individual case studies organized according to distinct themes or participant characteristics. Instead, Falmagne (2006) advocated for a concept of generalization that acknowledges the socially constructed nature of individuals while enabling social interpretations that extend beyond specific cases. This perspective aligned with the interpretive paradigm of the present study and guided the interpretation process. The researcher found that the meaning attributed by one person helped to understand and make sense of subsequent contributions from other participants, allowing for the development of themes while considering participant-specific details and generalizations. This approach served the goal of producing meaningful condensations that enhance understanding across participants (Falmagne, 2006).

The analysis also involved observing how participants' expressions either aligned with or deviated from selected themes, thereby enriching the thematic content. The data analysis reflected the dynamic nature of the interviews. To bring order to the diverse patterns and commonalities expressed by participants, the researcher employed a coding procedure.

4.4.1 CODING PROCESS

In the transcription of participant narratives, each transition or shift in the story from the researcher's perspective to that of the participant was assigned a numerical identifier (Neuman, 2000). This approach facilitated a clear presentation of the data and allowed for the articulation and reinforcement of themes through relevant quotations in the final written thesis. The researcher followed the theme analysis procedure described by Neuman (2000) and Henning et al. (2004) to ensure a systematic and rigorous analysis.

4.4.1.1 FIRST STAGE: OPEN CODING

The initial step in the analysis process involved open coding, which consisted of a thorough review and reexamination of the data to identify patterns and categories. In this phase, patterns or categories of expression were given names, dissected into distinct components, closely examined, and compared for similarities and differences. The researcher questioned the phenomena reflected by these patterns (de Vos, 2005). In this study, the researcher used the colour yellow to highlight and group related patterns or themes. Each theme was named based on its subject matter. According to de Vos et al. (2005), this process of assigning names to data is referred to as "conceptualizing the data" because the name represents or symbolizes a phenomenon. Throughout the analysis, the researcher compared utterances to ensure that related phenomena were given the same names, thus avoiding an excessive number of names that could lead to confusion. The names assigned to each topic or category, as described by Strauss and Corbin (1990), were chosen based on their logical relation to the represented facts and their ability to capture the attention of the researcher or reader.

4.4.1.2 SECOND STAGE: AN AXIAL CODE

The subsequent step involved axial coding, which entailed identifying connections and relationships among the themes to group related themes into clusters. According to De Vos (2005), these categories or themes should be distinct from one another while maintaining internal consistency. Following this guideline, the researcher identified prominent themes from the participants' narratives and organized them into clusters, which were then transferred to a separate document. The researcher also paid attention to divergent instances of the identified patterns, trends, and themes within the participants' narratives, as they provided new insights and interpretations of the text. Therefore, the researcher carefully examined the prominent patterns and sought additional logical and meaningful interpretations of the data.

4.4.1.3 STAGE THREE: SPECIALIZED CODING

The third phase encompassed selective coding, which entailed dividing all the themes from the document containing the participants' themes into a predetermined number to compose the final presentation. This process involved condensing the data into a concise and manageable set of themes to be included in the final narrative (de Vos et al. (2005). As a result, main themes and sub-themes were generated. It is important to note that the various coding methods were not strictly executed in sequential order throughout the analysis.

4.5 THEMES

Four main themes emerged from the participants' narratives, each of which corresponds to a specific research objective in the study. These themes encompassed the challenges encountered by SMMEs in the construction industry during and after the COVID-19 pandemic, the resilience demonstrated by SMMEs in navigating the uncertainties and crises of the VUCA (Volatile, Uncertain, Complex, Ambiguous) era, the adaptive and agile management approaches employed by SMMEs' managers during the COVID-19 period, and the strategies employed for recovery.

These themes will be presented in a tabulated format and subsequently described along with their associated sub-themes. It is worth noting that there may be some overlap between the themes, and therefore, the description of one theme may reference the content of another theme in certain instances.

Dominant Themes	Sub-themes or Emergent themes
Challenges faced by SMMEs in the construction industry during and post-COVID-19 in the Maphumulo Local Municipality.	<ul style="list-style-type: none"> ● Operational Restrictions and Disrupted Supply Chain ● Lack of Understanding and Expertise ● Lack of Cash Flow ● Government's Termination of Contracts
The resilience showed by SMMEs in the ERA of COVID-19 to weather the VUCA Storm or crises.	<ul style="list-style-type: none"> ● Managing Cash Flow ● Enhancing Supply Chain Resilience ● Access to Financial Recovery Packages ● Use of Credit Cards
SMME managers' agility and adaptive style of managing their company resources during COVID-19.	<ul style="list-style-type: none"> ● Cashflow ● Contingency Plans ● Workforce Management ● Embracing Technology ● Training and Skills Development ● Enhancing Collaborations with other companies
Various Recovery Strategies Used by SMME Construction Sector Managers to Recover from a VUCA Environment Created by Covid-19.	<ul style="list-style-type: none"> ● Diversification ● Cost Cutting

Table 4.2: Themes and Sub-themes

4.5.1 OBJECTIVE ONE ANALYSIS

4.5.1.1 DOMINANT THEME ONE: CHALLENGES FACED BY SMMEs IN THE CONSTRUCTION INDUSTRY DURING AND POST COVID-19 IN THE MAPHUMULO LOCAL MUNICIPALITY

In this section, we will discuss the difficulties encountered by SMMEs in the construction industry in Maphumulo Local Municipality during the COVID-19 pandemic. These challenges were identified through interviews with participants and aligned with some of the challenges highlighted in the existing literature. The challenges identified include operational restrictions and disruptions in the supply chain, a lack of understanding and expertise, financial constraints and cash flow issues, and termination of contracts by the municipality.

4.5.1.2 EMERGENT THEME ANALYSIS

(a) OPERATIONAL RESTRICTIONS AND DISRUPTED SUPPLY CHAIN

The majority of the SMMEs in the construction industry in the Maphumulo Local Municipality managed to open when the COVID-19 restrictions were lifted. However, for most, they were not open for long when they encountered operational restrictions and disrupted supply chains. A significant number of the interviewed participants lamented that due to these challenges, they had to temporarily shut down their businesses. Accordingly, participant number 4 and 7 state that:

“...Even though my business remained open after COVID-19, the volatile environment created by the pandemic made it difficult for smooth operation due to supply chain disruptions and operational restrictions” (Participant 4).

“...another challenge was that after Covid-19 because the manufacturing was also disrupted, there was a backlog in material supply due to movement restrictions. This significantly affected

the productivity of my company and many other construction companies I know in the area, and it seemed like we were never a priority as big companies in the urban areas were prioritised. Because of this other companies had to temporarily close, and others never opened” (Participant 7).

These findings concur with Chivilo et al. (2020) and Sraders (2020) who also claim a disruption in the supply chain led to procurement and material shortages in the US and UK with about 40% of the construction companies being affected. Furthermore, the study found that the supply chain disruptions and material shortages caused by the COVID-19 pandemic has exacerbated another long-standing issue of the rise in the cost of building material which has forced the already cash-strapped SMMEs in the construction industry into severe distress.

“The cost of material is going up almost every year but after COVID-19, I think it's because of the demand, it has exponentially grown. Now we will be forced to close or continue if we find ways to cut cost in delivering our projects” (Participant 4).

“The expensive material has made it difficult for us as small construction companies to recover after the pandemic coz the government's prices remain the same. So, there is no consideration of increased prices. We are then now forced to find innovative ways to deal with this issue” (Participant 3).

The CIDB (2019) assertions posit that the unstable building material costs, which have increased above inflation have adversely affected the developers’ ability to deliver affordable projects and have also resulted in high tender valuations and poor construction industry performance. This normally leads to the use of cheap and substandard materials leading to poor industry performance as lamented above. In this study, the same could be deduced from the participant's responses of “*find (ing) innovative ways*” and “*...we find ways to cut cost*”. These assertions potentially suggest that the situation faced by SMMEs in the construction industry may lead to compromised quality and performance.

(b) LACK OF UNDERSTANDING AND EXPERTISE

The findings also posit that most of the SMMEs in the construction industry understood that Covid-19 posed health hazards and they were one of the sectors that needed to be closed to strategically reduce the spread of the virus. However, the findings suggest that most of these companies never anticipated the numerous challenges they encountered after the COVID-19 movement restrictions were lifted and their businesses opened.

“I had no idea the impact would be this immense...” (Participant 6).

“The fact of the matter is that we were dealing with the unknown situation, and we could not effectively plan for it because we did not know what would happen at the end” (Participant 1)

“Nobody knew how long the pandemic would last so it was difficult to plan then and beyond” (Participant 7).

This is so because most of these companies lacked an in-depth understanding of the COVID-19 impact and expertise in setting out clear objectives and expectations when operations resumed. According to Jones et al. (2016), this is critical for the effective development of new ways of thinking and acting in response to VUCA's elements.

(c) LACK OF CASH FLOW

Most participants in the study have claimed that the disruptions of the pandemic on performing their jobs adequately and consistently have had serious consequences on their cash flow which has seriously impacted their capacity to deliver projects.

“You must remember no funds were coming in during the pandemic, only money going out and most of us did not have cash reserves. Therefore, by the time we needed to go back to business, we had no cash flow for almost a year, which made it difficult to sustain our business to the same levels as before the lockdowns” (Participant 8).

“After we went back to work, I had no money to continue paying salaries, rent and other things. Even though I had access to government relief grants, it was too little to sustain my business during and after the pandemic...” (Participant 7).

This is concurred by Nicola et al. (2020) and Heimgartner (2020) who posit that the cashflow issues result in hampered mobility, termination of contracts, and retrenchment of workers as well.

“Ever since the construction companies were allowed to operate, tenders (building contracts) have significantly decreased resulting in other companies closing down and people losing their jobs” (Participant 12).

“It has been difficult for many that have lost their jobs, my brother. There has been no work ever since the end of the pandemic, there has been no work” (Participant 8).

As illustrated by the participants, the issues of cash flow were intricately linked to various other issues such as increased poverty due to retrenchments it encouraged, poor construction performance and delays in delivering projects and the closing down of businesses in the Maphumulo Local Municipality.

(d) MUNICIPALITY’S TERMINATION OF CONTRACTS

“I lost some contracts that were terminated, and the saddest part is that I was told they would resume shortly but till today I am still waiting “(Participant 7).

“My tenders were stopped, and the Municipality still tells me to wait. This made my life and that of my staff very difficult.” (Participant 8).

The termination of these contracts has also resulted in the loss of jobs, meaning there has been a loss of income and poverty has potentially increased in many families dependent on the construction industry. The comprehension of these issues provides an understanding and evidence from which efficient strategies and responsive measures would be informed to cushion the social consequences of the COVID-19 impact on SMMEs in the construction industry.

Musonda and Rakolote (2022) corroborated by suggesting that in the quest to respond to the challenges brought about by the pandemic, the government terminated existing contracts in trying to control the expenditure. The findings of this study concur with these assertions.

4.5.2 OBJECTIVE TWO ANALYSIS

4.5.2.1 DOMINANT THEME TWO: THE RESILIENCE SHOWED BY SMMES IN THE ERA OF COVID-19 TO WEATHER THE VUCA STORM OR CRISES

Managers of SMMEs in the construction sector need to possess the capacity for resilience and strategies if they want to retain the consistency, long-term viability, and future prosperity of their companies (Nah and Siau, 2020). Therefore, the findings of this study postulate that various managers of the SMME construction companies in the Maphumulo Local Municipality, in enhancing resilience during the pandemic, used several avenues such as management of their cash flow, adopted strategies to enhance supply chain resilience, access financial relief packages and used their credit cards to supplement their business operations.

4.5.2.2 EMERGENT THEME ANALYSIS

(a) MANAGING CASH FLOW

Even though there is a significant number of participants who struggled with managing their cash flow and consequently, have encountered several detrimental challenges, for some of the participants, efficient management of cash flow has resulted in their company's showing resilience.

“The stringent approach on how I managed my spending before and during Covid helped me in sustaining my business during and after pandemic...” (Participant 2)

“I never experienced serious cash flow issues during the pandemic because I had tried to change my spending and supplies to suit my budget” (Participant 10)

The efficient management of cash flow has also been highlighted by the literature as one of the significant reasons for maintaining resilience during COVID-19 for many SMMEs within the construction industry and other industries in general. According to Chih, Hsiao, Zolghadr, and Naderpajouh (2022), they have developed new strategies to manage their finances and reduce costs. For instance, they have renegotiated contracts with suppliers and clients to reduce costs and improve cash flows. They have also explored new financing options such as government loans and grants to support their operations.

(b) ENHANCING SUPPLY CHAIN RESILIENCE

According to the study findings most participants highlighted supply chain disruptions as one of the major issues. Therefore, it is not surprising that, equally, those who had enhanced supply chain practices through increased adherence to circular economy principles, as well as diversifying and localizing production to strengthen the supply chain enjoyed minimal adverse impact.

“A long time ago, I realised buying from town was expensive. So, I built a rapport with local suppliers to supply me with quantities that I wanted, and they would stock most of the materials that I normally buy. This helped me a lot after the pandemic when everyone else was now using local suppliers because before they sold anything they would call and ask me first if I needed it and at times, they would order certain materials specifically for me and charge cheaper” (Participant 12).

“I think what has kept me afloat is that I have a warehouse where I keep my stock. Sometimes I bought stock excessively for future contracts” (Participant 10).

The literature also shares this point of view. According to (Heimgartner, 2020), the COVID-19 pandemic and containment efforts, have reignited interest in more localized and diverse production as well as shorter supply chains in several industries. Thus, by boosting resource efficiency and supply chain circularity, local supply chains boost resilience. Additionally, the respondents said

they would develop inventory and seek out backup sources to reduce future risks, and everyone agreed that this may be a useful strategy for reducing risk as well as boosting efficiency.

(c) ACCESS TO FINANCIAL RECOVERY PACKAGES

The government encouraged SMMEs and businesses, in general, to apply for various financial recovery packages which were meant to assist businesses in recovering from the COVID-19 pandemic. From the findings of this study, most participants posit that, even though these packages provided temporary relief, they took advantage of them which mitigated their financial situations and improved their resilience.

“I was servicing several loans from the FNB (First National Bank) and from SEFA (Small Enterprise Finance Agency) when business was stopped by the pandemic. While I was still stressed by how I was going to pay because I would not invoice anymore, they offered 6 months’ pay holidays which kept me afloat for a couple of months” (Participant 7).

“The most helpful to me was the Loan Guarantee Scheme. It greatly assisted me and my staff for over a couple of months from which I was able to pay some of the salaries, rent, and contracts with suppliers” (Participant 12).

“When I could not pay salaries anymore, the Unemployment Insurance Fund Coronavirus Covid-19 Relief Benefit came in handy. Through, I was able to resume payments of my staff for the duration of the pandemic” (Participant 8).

Le et al. (2020) claim that the COVID-19 experience made policymakers and business owners more aware of the need to offer more assistance in the form of financial reserves and credit access. Government policy measures mostly in the form of financial contingency planning and adaptable payment options for tax liabilities are a start in this regard.

(d) USE OF CREDIT CARDS

The findings of this study also revealed that most of the companies, in response to the lack of cash flow and internal cash also predominantly relied not only on surplus cash obtained from revenue but used their credit cards to supplement.

“While I was still waiting for the relief grant to pay, I exhausted my credit card. At least it helped me a great deal in continuing with some of the business operations” (Participant 12).

“My credit card was maxed out to pay for rent, salaries, buying material, and other things...” (Participant 6).

This is corroborated by research conducted by Brown et al. (2019), who discovered that the majority of SMMEs utilize credit cards as a sort of improvised financial "bootstrapping" to solve short-term liquidity issues.

4.5.3 OBJECTIVE THREE ANALYSIS

4.5.3.1 DOMINANT THEME THREE: SMME MANAGERS' AGILITY AND ADAPTIVE STYLE OF MANAGING THEIR COMPANY RESOURCES DURING COVID-19

The COVID-19 pandemic has created unprecedented challenges for businesses across the world. The construction industry SMMEs and SMMEs in all other sectors have been hit particularly hard, with many struggling to survive. However, some construction industry SMMEs have managed to weather the storm by being agile and adaptive in managing their company resources. Therefore, this study found various agility and adaptivity approaches in resource management from various construction managers in managing their resources in the Maphumulo Local Municipality during COVID-19.

The findings of this study revealed that those who were able to manage their resources effectively stayed informed of possible changes and opportunities within the construction industry. For example, one of the participants (*participant 5*) alluded to the fact that he was able to access and

explore alternative sources of funding because he was constantly checking the news, government publications, and other relevant platforms relevant to the effects of the pandemic on the construction companies and possible opportunities for relief.

“I had to rely on the news, municipality publications, and the internet for information. I would say that helped me manage my resources very well because I was aware of how long the pandemic may last, I got hold of the relief grant information that I applied for, and I was also able to anticipate a price increase on the material which made me cross check prices and looked for alternative local suppliers” (Participant 5).

This is supported by Birkinshaw and Gibson (2004) who posit that for organizations to adapt swiftly, managers need to stay informed of the new developments and trends so that they will be able to affect their cashflow, adjust where necessary, renegotiate with suppliers, reduce spending, and explore other sources for funding. Birkinshaw and Gibson (2004) also emphasize the need to be flexible. This involves altering business models and management of the workforce to meet the needs of the customers. In this regard, this study also highlighted instances where the SMME managers were able to manage their resources flexibly to respond fast to changes, unpredictability, and risks of the COVID-19 pandemic.

“My most valuable resource is my employees. So, during the pandemic (COVID-19), even though it was tough for everyone, I made sure I managed the situation in a way that would not destroy their morale. So instead of retrenching them, I reduced working hours, and the work was mainly paperwork because the movement was restricted. Unfortunately, for those who worked on-site, I could not give them work but continued paid then reduced salary while they were still waiting for their UIF pays which I made sure I assisted them with their application.” (Participant 12).

“Realizing that it was still going to take a long time before we came back to work, I negotiated with my employees to continue to pay them for the subsequent three months while they were applying for the UIF. I knew I could not just desert them because I am still going to need them when work resumes. So, it was my way of showing loyalty and compassion so that when work resumes, they will do the same to me” (Participant 10).

Moreover, the other most mentioned approach to managing resources was the adoption of technology. From the findings, it is however clear that this was forced upon by circumstances

rather than voluntary. In this regard, most managers posit that the shift to the new normal meant a change in how they had to manage the relationships with their customers and suppliers to seek to exploit new opportunities and collaborations.

“The meetings had to continue to maintain confidence and share ideas and I was then forced to quickly learn how to operate online platforms such as Zoom” (Participant 3).

“Through interaction with other managers, I was introduced to a particular software that is used to manage daily operations of the construction business which allowed some of the operations to be done remotely. So, I quickly enrolled some of my staff members on an online course. This assisted in responding to some of the challenges we initially encountered” (Participant 10).

In addition to all the above-mentioned adaptable and agile measures of managing cash flow and employees, SMME managers mentioned that they also had to be adept at managing their supply chain. With disruptions to global supply chains and shortages of key materials, managers make sure that they find ways to ensure that they have access to the resources they need to complete projects on time and within budget (Heimgartner, 2020). According to the findings of this study, in this regard, managers looked to diversify their suppliers by leaning more toward local suppliers, they also forged collaborations with other companies in sharing ideas and resources.

“The supply was so scarce that we had to buy from each other. Those who had stocked more sold to us at reasonable prices” (Participant 2).

“A long time ago, I realised buying from town was expensive. So, I built a rapport with local suppliers to supply me with quantities that I wanted, and they would stock most of the materials that I normally buy. This helped me a lot after the pandemic when everyone else was now using local suppliers because before they sold anything they would call and ask me first if I needed it and at times, they would order certain materials specifically for me and charge cheaper” (Participant 12).

Finally, even though very few mentioned that they had contingency plans to adapt quickly to changing circumstances and mitigate potential risks to their business, many did not, and they had a knee-jerk reaction to the volatile environment which delayed their recovery and for some led to the termination of contracts, closures, and poor-quality service.

4.5.4 OBJECTIVE FOUR ANALYSIS

4.5.4.1 DOMINANT THEME: VARIOUS RECOVERY STRATEGIES USED BY SMME CONSTRUCTION SECTOR MANAGERS TO RECOVER FROM A VUCA ENVIRONMENT CREATED BY COVID-19

The pandemic has had a significant disruptive impact on the construction industry. As a result, SMME construction companies have had to implement various recovery strategies to navigate through these unprecedented times. One of the most common recovery strategies employed by SMME construction companies in this study was cost-cutting measures. This included reducing employees, reduction of working hours, and looking for cheaper material suppliers. This strategy was employed by most respondents to conserve cash flow and keep the business afloat during these turbulent times.

Another recovery strategy which seemed to be prevalent in the findings, employed by the SMME construction companies was diversification. In this regard, some SMMEs saw an opportunity from the lack of material in the area and they expanded their company's services to include selling of building materials. Other participants also asserted that to recover from COVID-19, they started doing renovations rather than relying upon government contracts some were terminated.

“After my contracts were terminated after the pandemic, I had to divert my focus into something else and that was to do renovations from the houses in and around the area.” (Participant 6).

According to the literature (Meister and Mulcahy, 2016; Holbeche, 2015), diversification is one technique that the majority of SMMEs in the construction industry have implemented. By doing so, businesses can access additional revenue streams and lessen their reliance on a single good or service.

4.6 CHAPTER SUMMARY

In conclusion, with so much uncertainty and volatility in the market, the COVID-19 pandemic has presented SMME construction companies with numerous challenges. Thus, managers must be prepared to adapt quickly to changing circumstances and mitigate potential risks to their business; be skilled at managing risk and managing company resources and remain agile and adaptable to survive in the current market. According to the findings of this study, this has been achieved through the implementation of various recovery strategies, development contingency plans, management of cash flow, workforce, supply chain, and other approaches to navigate the COVID-19 challenges and weather the turbulent environment. The subsequent chapter provides a comprehensive discussion of these findings, which integrates the literature, and theoretical underpinnings to arrive at the study conclusions and recommendations.

CHAPTER FIVE: RECOMMENDATIONS, FUTURE RELATED STUDIES, AND CONCLUSION

5.1 INTRODUCTION

In this final chapter, the researcher presents the key recommendations, recommendations for future studies, and managerial implications of the study and draws conclusions based on the findings and analysis presented throughout this study. The preceding chapters have provided valuable insights into the challenges affecting SMME construction companies in Maphumulo Local Municipality KwaZulu Natal, post-COVID-19, exploring the challenges, opportunities, and strategies related to how the SMMEs have remained resilient during and post-pandemic. This chapter serves as a culmination of our research, highlighting actionable recommendations for stakeholders and summarizing the main outcomes of the study.

The primary aim of this study was to highlight the challenges affecting SMMEs in the construction industry in Maphumulo Municipality, KwaZulu Natal post-COVID-19 and assess intervention measures that have been employed to improve and maintain their resilience during a VUCA environment. By examining the research problem using a qualitative research method, in-depth interviews with the SMMEs owners within the construction industry at Maphumulo Local Municipality were conducted to gain a comprehensive understanding of the impact of COVID-19 on the SMMEs within the construction industry in a VUCA environment and their resilience. This has also provided an understanding of the implications on the CEOs of SMMEs in the construction sector and Municipality and government officials. Building upon this knowledge, we are now positioned to offer evidence-based recommendations to address the identified challenges and enhance the response and resilience of SMMEs in absorbing shocks as a result of the VUCA environment.

5.2 RECOMMENDATIONS

5.2.1 OBJECTIVE ONE: TO IDENTIFY THE CHALLENGES FACED BY SMMES IN THE CONSTRUCTION INDUSTRY DURING AND POST COVID-19 IN THE MAPHUMULO LOCAL MUNICIPALITY

The South African construction industry has always been a challenging environment for small, medium, and micro enterprises (SMMEs). However, the COVID-19 pandemic has brought about a new set of challenges that have made it even more difficult for these businesses to survive. Before the pandemic, SMMEs in the construction industry faced challenges such as limited access to finance, lack of skills and expertise, and difficulty in accessing markets (Berger and Demirgüç-Kunt, 2021; Laryea and Watermeyer, 2020; Parikh, 2020; CIDB, 2019; Bhorat et al., 2018; Handfield, 2019). These challenges were exacerbated by the pandemic, which brought about a decline in demand for construction services, supply chain disruptions, and restrictions on movement and gatherings (Musonda and Rakolote, 2022; CIDB, 2022; Chivilo et al., 2020; Nicola et al., 2020). The findings of this study and literature alike have revealed that during the pandemic, SMMEs in the construction industry had to adapt to new ways of working to comply with COVID-19 regulations. This included implementing health and safety protocols, such as social distancing and regular sanitizing of workspaces (Aigbavboa et al., 2021; Amri and Marey-Pérez, 2020). However, these measures came at a cost, which was particularly challenging for SMMEs with limited resources. The findings of this study have revealed that in South Africa and particularly in rural areas such as Maphumulo Local Municipality these businesses face numerous challenges, including operational restrictions and disrupted supply chain; lack of understanding and expertise; lack of cash flow; and municipality termination of contracts. Exploring these challenges through the lens of the Resource-Based View theory, Institutional theory, and Social Capital theory, these challenges could be classified into three categories, namely, limited access to resources, institutional barriers and reduced social capital.

Resource-Based View theory suggests that a firm's resources and capabilities are the primary drivers of its competitive advantage (Shan et al., 2019). However, SMMEs in the construction industry often lack access to critical resources such as finance, technology, and skilled labour. During the pandemic, this issue has been exacerbated, with many businesses struggling to secure loans or government support (Aigbavboa et al., 2021; Laryea and Watermeyer, 2020; Parikh, 2020). These issues were concurred by this study with a significant number of construction industry SMMEs in Maphumulo areas raising similar concerns. This has inferred that SMMEs may struggle to compete with larger firms that have greater access to resources. The termination of contracts by the municipality for some of the SMMEs indicates the difficulties the SMMEs in the Maphumulo area encountered in conforming to contractual obligations during the pandemic.

In this regard, Institutional theory posits that organizations must conform to societal norms and expectations to be successful (Sonkar and Sarkar, 2020; Meyer and Rowan, 2006). The findings of this study showed that SMMEs in the construction industry could not attend to contractual obligations and satisfy institutional regulations and bureaucratic processes, which led to some contracts being cancelled by the municipality. The challenges they had limited their ability to operate efficiently and effectively. It can be argued that the pandemic has led to increased uncertainty and volatility in the regulatory environment in general, making it even more difficult for SMMEs to perform their contractual obligations to fulfil new institutional requirements. Also, the findings of the study revealed that relationships and networks which are critical for business success were disrupted by the pandemic. For instance, the findings and literature alike posit that SMMEs in the construction industry struggled to maintain connections with suppliers, customers, and other stakeholders (Sraders, 2020). Social distancing measures and remote work made it challenging for businesses to build new relationships or maintain existing ones. This limited SMMEs' access to critical information and resources, further exacerbating their challenges.

In summary, post-COVID-19, SMMEs in the construction industry are faced with the challenge of rebuilding their businesses in an environment that has been severely impacted by the pandemic. This includes dealing with the economic fallout of the pandemic, such as reduced demand for construction services and increased competition for limited contracts. To overcome these challenges, SMMEs in the construction industry need to adopt innovative strategies that enable them to adapt to the changing environment. This includes leveraging technology to improve productivity and efficiency, collaborating with other businesses to access new markets and opportunities, and investing in skills development to enhance their competitiveness (Aigbavboa et al., 2021; Mengistu and Mahesh, 2020). In addition, SMMEs in the construction industry need to work closely with the government and other stakeholders to create an enabling environment that supports their growth and development (Musonda and Rakolote, 2022; CIDB, 2022). This includes providing access to finance, creating opportunities for skills development and training, and promoting local procurement to support local businesses.

5.2.2 OBJECTIVE TWO: TO ASSESS THE RESILIENCE CAPACITY SHOWN BY SMMEs IN THE ERA OF COVID-19 TO WEATHER THE VUCA CRISES

The COVID-19 pandemic has had a profound impact on businesses around the world, with many struggling to survive in the face of unprecedented challenges. However, the findings of this study reveal that despite the difficulties, the construction industry SMMEs in the Maphumulo Local Municipality have demonstrated remarkable resilience in weathering the VUCA (volatile, uncertain, complex, and ambiguous) crises brought on by the pandemic. Their ability to adapt to changing circumstances and leverage their existing resources has been critical to their resilience. For example, management of their cash flow, adopting strategies to enhance supply chain resilience, accessing financial relief packages, and using their credit cards to supplement their business operations have been key to their resilience. In this regard, some of SMMEs have shifted their focus to other projects such as renovations and selling building materials. Additionally, SMMEs have been able to leverage their existing relationships with suppliers and customers to negotiate better terms and secure new business opportunities. These adopted strategies are some of the strategies that the literature has also proposed to enhance, for example, the supply chain (Heimgartner, 2020).

As the findings suggest, in the case of the Maphumulo Local Municipality construction industry SMMEs, the institutional environment has been both a source of support and a challenge. On the one hand, government initiatives such as the COVID-19 Loan Guarantee Scheme have provided much-needed financial support to SMMEs (Le et al., 2020). On the other hand, delays in government payments and bureaucratic red tape have made it difficult for some of these SMMEs to access these resources promptly resulting in some severe and detrimental challenges. Also, Sraders (2020) posits that social networks and relationships are important resources for organizations and that these relationships can be leveraged to build resilience. In the case of the Maphumulo Local Municipality construction industry SMMEs, even though some social networks and relationships were disrupted, and some struggled to maintain connections with suppliers, customers, and other stakeholders, however; those who managed to preserve these relationships and kept their strong social capital intact or slightly disrupted they became a key factor in their ability to weather the VUCA crises. For instance, they were able to rely on their relationships with

suppliers, customers, and other stakeholders to access resources and information that they might not otherwise have been able to obtain. Additionally, the Maphumulo Local Municipality construction industry SMMEs have been able to collaborate to share resources and expertise, further strengthening their social capital. The general resilience demonstrated by the Maphumulo Local Municipality construction industry SMMEs in the era of COVID-19 is a testament to the SMMEs' ability to adapt and thrive in challenging circumstances. Moving forward, it will be important for SMMEs to continue to leverage these resources and relationships as they navigate an uncertain future.

5.2.3 OBJECTIVE THREE: TO EXPLORE SMME CONSTRUCTION SECTOR MANAGERS' AGILITY AND ADAPTIVE STYLE FOR MANAGING THEIR COMPANY RESOURCES DURING COVID-19

In exploring the agility and adaptive style of SMME construction sector managers in managing their company resources during COVID-19, It was revealed that even though some of the managers were swift and flexible in managing their company resources, they were very few compared to those who effectively and efficiently did so. For instance, very few had contingency plans to adapt quickly to changing circumstances and mitigate potential risks to their business, which Duchek, (2020) posits is one of the fundamentals for businesses to be able to be resilient when unforeseen challenges arise. Many managers had a knee-jerk reaction to the volatile environment which delayed their recovery and for some led to the termination of contracts, closures, and poor-quality service. However, some even though few managers were agile and adaptable. They showed this by swiftly identifying their company's strengths and weaknesses and developing strategies to make the most of their resources. During Covid-19, this meant that they were able to quickly adapt to changing circumstances, such as disruptions to supply chains and changes in customer demand by adopting necessary strategies such as management of their cash flow, adopting strategies to enhance supply chain resilience, accessing financial relief packages, and using their credit cards to supplement their business operations.

Furthermore, SMMEs in the construction sector are subject to a range of regulations, from health and safety requirements to building codes and zoning laws (Amri and Marey-Pérez, 2020). During COVID-19, these regulations have become even more complex, with new rules around social distancing and remote working (Aigbavboa et al., 2021). Thus, managers must be able to navigate these regulations while still delivering high-quality projects on time and within budget. However, the findings of this study revealed that regulatory issues were cumbersome for many managers to deal with. They were unable to attend to contractual obligations and satisfy institutional regulations and bureaucratic processes, which led to some contracts being cancelled by the municipality. Meaning, that their inability to be agile and adaptive in this regard limited their ability to operate efficiently and effectively and found it difficult to perform their contractual obligations to fulfil new institutional requirements. From the findings, there seems to be a suggestion that managers worked in isolation with the municipality and regulators to ensure compliance with new regulations. This is one of the fundamental factors that Harraf et al. (2015) and Hauschildt et al. (2016) argue give businesses a less competitive edge and eventually lead to their demise in increasingly complex competitive contexts.

However, even though there were shortcomings, the findings of the study show that the Maphumulo Local Municipality SMMEs in the construction sector relied heavily on relationships with suppliers, customers, and other stakeholders to access resources and information that they might not otherwise have been able to obtain. These relationships, particularly during times of crisis assisted some of the SMMEs to swiftly adapt and advance towards new opportunities, respond to volatile markets, and avert complacency (Birkinshaw and Gibson, 2004). In this regard, the agility and adaptive style of SMME construction sector managers during COVID-19 is crucial for managing their company resources effectively, leveraging their unique resources and capabilities, navigating complex regulations, and building strong relationships with other actors in their industry. The findings show that through these efforts, the many managers in the Maphumulo Local Municipality SMMEs in the construction industry could have ensured the long-term success of their businesses. As we continue to navigate the challenges posed by COVID-19, these skills will be more important than ever.

5.2.4 OBJECTIVE FOUR: TO EXAMINE VARIOUS RECOVERY STRATEGIES USED BY SMME CONSTRUCTION SECTOR MANAGERS TO RECOVER FROM A VUCA ENVIRONMENT CREATED BY COVID-19

The unprecedented nature of the pandemic created a volatile, uncertain, complex, and ambiguous (VUCA) environment, which required managers in the construction sector to adopt various recovery strategies. Among the employed strategies, the most prevalently employed strategies by the Maphumulo Local Municipality SMMEs construction industry included reducing employees, reducing working hours, looking for cheaper material suppliers, and diversification. The cost-cutting measures which included reducing employee salaries, cutting back on non-essential expenses, and renegotiating contracts with suppliers were effective to a certain level. However, while these measures may have helped the SMMEs to be resilient under the VUCA environment and deal with the pandemic shocks, they may not be sustainable in the long run. For example, reducing salaries can lead to demotivated employees and high staff turnover rates. Cutting back on essential expenses can also lead to reduced quality of service and lower customer satisfaction levels (Chivilo et al., 2020; Heimgartner, 2020; Nicola et al., 2020; Sraders, 2020).

Another strategy adopted by managers is diversification. Some SMMEs have diversified their services to include selling building materials and doing renovations rather than relying upon government contracts. While diversification can help businesses adapt to changing market conditions, it requires significant investment and expertise (Holbeche, 2015; Meister and Mulcahy, 2016). Looking at how most of the Maphumulo Local Municipality SMMEs struggled with cash flow and management of resources, it suggests that many may struggle to implement this strategy effectively and those who have started may find it difficult in the long run. Collaboration is another strategy that managers in the Maphumulo Local Municipality have adopted in the SMME construction sector. Collaboration involves partnering with other businesses to share resources and expertise. In this regard, they shared knowledge and equipment on how to mitigate the COVID-19 shocks which assisted the managers in reducing costs and improving service delivery. It showed how managers within the Maphumulo Local Municipality trusted each other through developing such effective communication between them.

Digitalization and advancement in technology are other strategies that are commonly suggested by literature (Syriopoulos, 2020; Windapo, 2013) in response to the VUCA environment or any other shocks. In developed countries and communities, the pandemic has accelerated the adoption of digital technologies such as remote work tools, virtual meetings, and online project management systems. In this regard, digitalization and advancements in technology have assisted businesses including SMMEs to improve efficiency, reduce costs, and enhance customer experience (Syriopoulos, 2020). However, very little of this strategy was suggested by the SMMEs in this study. This could be attributed to the fact that; Maphumulo Local Municipality is situated in a rural area where digital resources may be limited as viable options to apply them. This is concurred by Syriopoulos (2020) who argues that generally, SMMEs in rural and other underdeveloped communities have little to no ability to counterattack the consequences of the pandemic because they have a shortage of infrastructure to meet the digitization and technological demands of the new normal. The significant investment in technology infrastructure and staff training may be one of the reasons not so many SMMEs in this study opted for the digitization and technological approach. However, evident from the managers in the SMME construction sector in Maphumulo Local Municipality is that they have adopted various recovery strategies to recover from the VUCA environment created by COVID-19. While these strategies may have helped businesses survive the pandemic's initial shock, their effectiveness, in the long run, remains unclear. Businesses need to evaluate these strategies' sustainability and adaptability to changing market conditions to ensure their long-term survival and growth.

5.3 MANAGERIAL IMPLICATIONS OF THE STUDY

This section will elucidate and synthesise the significance of the research such as the literature contribution and cogent theoretical underpinnings as well as the empirical findings extrapolated from the results that have been coalesced in the study. SMMEs in the construction industry in Maphumulo Local Municipality faced various challenges that threaten their survival post-COVID-19 which is the epitome of the broader built industry business sentiments. To improve and maintain their resilience during a VUCA environment, SMMEs employed various resilience and recovery measures which could be understood within three theoretical underpinnings, namely, Resource-

Based view theory, Institutional theory, and Social Capital theory. In this regard, fundamental strategies included management of cash flow, adoption of strategies to enhance supply chain resilience, accessing financial relief packages, using credit cards to supplement business operations, reducing redundant employees, reduction of working hours, looking for cheaper material suppliers, diversification, and collaboration with other businesses to build relationships and networks that can support their growth and development. By employing these tactics and strategies, SMMEs in the construction industry were able to overcome some of the challenges, obstacles, and constraints they faced and thus were somewhat resilient in a turbulent environment. Therefore, this study consolidated and synthesized the following managerial implications predicated on empirical results:

- a) Access to funding: SMMEs need access to funding to sustain their operations and invest in new projects. Government support programs and initiatives should be made more accessible to SMMEs.
- b) Skills development: SMMEs need access to training and skills development programs to enhance their competitiveness in the industry.
- c) Information dissemination: SMMEs need access to information about government support programs and initiatives. This can be achieved through targeted communication campaigns.
- d) Collaboration: SMMEs should collaborate with each other and larger companies to enhance their capacity and competitiveness. Participate in industry associations, attend networking events, and engage with stakeholders to build relationships and networks that can support their growth and development.
- e) Innovation: SMMEs should embrace innovation and new technologies to improve their efficiency and competitiveness.
- f) Government Engagement: SMMEs should engage with relevant authorities to advocate for policies that support their growth and development. Also, comply with regulations and standards to enhance their credibility and legitimacy.

5.4 LIMITATIONS OF THE STUDY

The study on challenges affecting SMMEs in the construction industry at Maphumulo Municipality, KwaZulu Natal post-COVID-19 and their resilience within the VUCA environment is a commendable effort to understand the struggles of small businesses in the current climate. However, it is important to acknowledge that this study has limitations that may affect the validity and generalizability of its findings. The following are some of the limitations that should be considered:

5.4.1 SAMPLE SIZE

The study's sample size was limited due to the availability of SMMEs in the construction industry at Maphumulo Municipality. This led to an inadequate representation of the population, which limited the generalizability of the study's findings.

5.4.2 DATA COLLECTION METHOD

The study's data collection method may also have had limitations. To a certain extent, the use of interviews may not have provided an entirely accurate representation of the challenges and resilience of SMMEs in the construction industry in the Maphumulo Local Municipality. The researcher felt that some of the given responses may have been influenced by social desirability bias, where participants provided socially acceptable answers that may have not reflected their true experiences in certain circumstances.

5.4.3 TIME CONSTRAINTS

The COVID-19 pandemic has disrupted many business operations, and SMMEs may not have had enough time to adjust to the new normal. This may affect the accuracy of their responses and limit the study's ability to capture their true experiences.

5.4.4 EXTERNAL FACTORS

External factors such as government policies, economic conditions, and competition from larger businesses may also have affected the challenges and resilience of SMMEs in the construction industry. These factors were not fully captured in the study, limiting its ability to provide a comprehensive understanding of the issues.

5.5 RECOMMENDATIONS FOR FUTURE STUDIES

This study has highlighted the vulnerability of SMMEs in the construction industry in Maphumulo Local Municipality during the COVID-19 pandemic. It has further suggested various avenues to improve and maintain their resilience during a VUCA environment and intervention measures need to be implemented. These measures should focus on access to funding, skills development, information dissemination, collaboration, and innovation. With the right support, SMMEs in the construction industry can recover from the impact of the pandemic and contribute to economic growth and job creation in Maphumulo Local Municipality and beyond. However, while this study provides valuable insights into the challenges and resilience of SMMEs in the construction industry at Maphumulo Municipality, KwaZulu Natal post-COVID-19, it is important to recommend what future studies should consider and incorporate. Therefore, this study recommends that future studies investigate more comprehensively ways in which SMMEs can improve their management efficiency using technology, benefit from government support and legislation, and collaborate at an organizational and community level. These studies could provide valuable insights into how SMMEs can survive and thrive in a post-COVID-19 world.

5.5.1 MANAGEMENT EFFICIENCY IMPROVEMENT

One area that requires further investigation is the management efficiency of SMMEs in the construction industry. The pandemic has shown that many businesses were not prepared for the disruption caused by the lockdown. Future studies could explore the use of technology in improving management efficiency, such as the use of project management software to streamline operations.

5.5.2 IMPACT OF GOVERNMENT SUPPORT AND LEGISLATION

The South African government has provided various forms of support to SMMEs during the pandemic. However, it is unclear how effective these measures have been in supporting SMMEs in the construction industry. Future studies could investigate the impact of government support on SMMEs in the construction industry at Maphumulo Municipality, KwaZulu Natal. The study could also explore the effectiveness of legislation in protecting the interests of SMMEs in the construction industry.

5.5.3 COLLABORATIONS AT AN ORGANIZATIONAL AND COMMUNITY LEVEL

Collaboration is essential for SMMEs to survive and thrive in a post-Covid-19 world. Future studies could investigate ways in which SMMEs can collaborate at an organizational and community level. The study could explore the benefits of forming partnerships with other businesses, sharing resources and skills, and collaborating with local government and community organizations.

5.6 CONCLUSION OF THE STUDY

Some studies have significantly contributed to the greater literature on the challenges and impediments to the performance, growth, and development of the South African construction

industry discourse. However, most of these studies were conducted before the impact of the devastating and catastrophic impact of covid-19 pandemic on the construction industry. This has further provided a completely new construct that has not been factored in by other studies giving this study a new significant research phenomenon within the built environment to explore. Even though other studies have factored in the impact of COVID-19 like Aigbavboa et al. (2021) they have significantly limited their study to well-established companies while this study distinctively looks at the SMME component of the construction industry that most research and literature on the topic has not extensively covered. Further, this study's attempt to contextualize within the rural Maphumulo Municipality offers different environmental dynamics from other studies which have been conducted in different settings such as the urban City of Cape Town by Windapo and Cattell (2013) and Johannesburg by Aigbavboa et al. (2021).

Informed by an interpretivism philosophy with its cogent tenets of theory development and inductive approach, this study extracted knowledge from the twelve (12) participants' (Managers of SMMEs in the construction industry) perceptions and experiences within their natural settings (Maphumulo Local Municipality) guided by four presuppositions:

- a subjectivist epistemology,
- a relativist ontology,
- a naturalist methodology,
- and balanced axiology.
- The literature review and Resource Based Theory, Institutional Theory and Social Capital

Theory guided this study to illuminate and highlight various scholastic arguments from which the challenges that adversely constrain SMMEs in the construction industry in Maphumulo Municipality, KwaZulu Natal post-COVID-19 were understood and mitigated.

Thus, the findings in satisfying the objectives of the study were presented in four dominant and emerging themes, namely,

(a) Challenges faced by SMMEs in the construction industry during and post-COVID-19 in the Maphumulo Local Municipality.

(b) The resilience showed by SMMEs in the ERA of COVID-19 to weather the VUCA Storm or crises.

(c) SMMEs managers' agility and adaptive style of managing their company resources during COVID-19; and

(d) Various Recovery Strategies Used by SMME Construction Sector Managers to Recover from a VUCA Environment Created by COVID-19. Therefore, the study found that SMMEs in the construction industry in Maphumulo Municipality faced various challenges that threatened their survival post-COVID-19.

These challenges included operational restrictions and disrupted supply chain; lack of understanding together with expertise; lack of cash flow; and Municipality termination of contracts. Furthermore, the study found that for SMMEs in the construction industry in Maphumulo Municipality to improve and maintain resilience during a VUCA environment, they need to employ various resilience measures which could be understood within three theoretical underpinnings, namely, Resource-Based view theory, Institutional theory, and Social Capital theory. In this regard, these strategies included management of cash flow, adoption of strategies to enhance supply chain resilience, accessing financial relief packages, using credit cards to supplement business operations, reducing employees, reduction of working hours, looking for cheaper material suppliers, diversification, and collaboration with other businesses to build relationships and networks that can support their growth and development, among others. By employing these measures and strategies, SMMEs in the construction industry will be able to overcome some of the challenges, constraints, and obstacles they face and thus somewhat be resilient in a VUCA environment.

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APPENDIXES

Appendix A (Gatekeeper Letter)



Private Bag 9306, MAPHUMULO, 4470 | Tel: 032 481 4500 | Fax: 032 481 2065/3

22 November 2022

Mr SM Dlomo
39 Bohmer Road
New Germany
3600

by email: syandisadlomo@gmail.com

Dear Sir

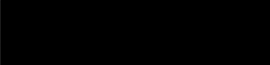
PERMISSION TO CONDUCT DISSERTATION STUDY WITHIN MAPHUMULO MUNICIPALITY

With reference to your request to conduct a Master's in Business Administration research study titled "assessing the challenges affecting small to medium construction companies in Maphumulo municipality KwaZulu Natal, post covid-19" kindly be advised that Maphumulo Local Municipality understands that the study the proposed study will be conducted with contractors who are operating within Maphumulo Local Municipality and a maximum of two (2) Maphumulo Local Municipality employees.

We wish to state that data collected and analysed to form part of the final dissertation, all personal information (names, surnames, address) shall be excluded and only contractors and municipal staff who gave written informed consent shall form part of study.

I therefore grant you permission for this research to be conducted within Maphumulo Local Municipality subject to compliance with ethical considerations mentioned above.

Yours Faithfully


CS MHLONGO
ACTING MUNICIPAL MANAGER

EXECUTIVE COMMITTEE

Mayor Cllr SZ Nyathikaazi | Deputy Mayor Cllr ST Chidi | Speaker ML Ngidi | Cllr ZF Khuzwayo-Dlamini | Cllr CS Shange | Acting Municipal Manager Mr. CS Mhlougo

Appendix B (Informed Consent)

Informed Consent Document

Dear Participant,

My name is Syandisa Dlomo 217044508 I am a Master's in Business Administration candidate studying at the University of KwaZulu-Natal, Westville Campus. The title of my research is: "assessing the challenges affecting small to medium construction companies in Maphumulo local municipality KwaZulu Natal, post Coronavirus disease of 2019".

The aim of the study is to This study aims to highlight the challenges affecting SMMEs in the construction industry in Maphumulo Municipality, KwaZulu Natal post covid-19 and assess intervention measures that have been employed to improve and maintain their development and contribution to the country's economy and society at large. I am interested in interviewing you to share your experiences and observations on the subject matter.

Please note that:

- The information that you provide will be used for scholarly research only.
- Your participation is entirely voluntary. You have a choice to participate, not to participate or stop participating in the research. You will not be penalized for taking such an action.
- Your views in this interview will be presented anonymously. Neither your name nor identity will be disclosed in any form in the study.
- The interview will take about (10 minutes).
- The record as well as other items associated with the interview will be held in a password-protected file accessible only to myself and my supervisors. After a period of 5 years, in line with the rules of the university, it will be disposed by shredding and burning.
- If you agree to participate, please sign the declaration attached to this statement (a separate sheet will be provided for signatures)

I can be contacted at the Graduate School of Business and Leadership, Westville Campus, Durban. Cell: 079 998 2376 Email: syandisadlomo@gmail.com 217044508@stu.ukzn.ac.za My supervisor is Dr Tony Ngwenya who is located at the Graduate School of Business and Leadership, Westville Campus, Durban of the University of KwaZulu-Natal. Contact details:

Appendix C (Ethical Clearance)



04 May 2023

Syandisa Minenhle Dlomo (217044508)
Grad School of Bus & Leadership
Westville Campus

Dear SM Dlomo,

Protocol reference number: HSSREC/00005440/2023

Project title: Assessing the challenges affecting small to medium construction companies in Maphumulo Local Municipality KwaZulu-Natal, post coronavirus pandemic

Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 24 March 2023 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. **PLEASE NOTE:** Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 04 May 2024.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Yours sincerely,



Professor Dipane Hlalele (Chair)

/dd

Humanities and Social Sciences Research Ethics Committee

Postal Address: Private Bag X54001, Durban, 4000, South Africa

Telephone: +27 1031 250 8350/4557/3587 Email: hsrec@ukzn.ac.za Website: <https://research.ukzn.ac.za/Research/Ethics>

Founding Campuses:  Edgewood  Howard College  Medical School  Pietermaritzburg  Westville

INSPIRING GREATNESS

Interview Questions for SMME Directors

Objective 1: To Identify The Challenges Faced By Smmes In The Construction Industry During And Post COVID-19 In The Maphumulo Local Municipality

1. What are the main challenges faced by SMMEs in the construction industry during the COVID-19 pandemic in the Maphumulo Local Municipality?

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2. How have the challenges faced by SMMEs in the construction industry in the Maphumulo Local Municipality changed from during to post-COVID-19?

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3. What are the financial challenges faced by SMMEs in the construction industry during and post-COVID-19 in the Maphumulo Local Municipality?

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4. How have SMMEs in the construction industry in the Maphumulo Local Municipality adapted to the new regulations and restrictions brought on by COVID-19?

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5. What are the challenges faced by SMMEs in the construction industry in the Maphumulo Local Municipality when it comes to accessing government support during and post Covid-19?

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Objective 2: To Assess The Resilience Capacity Shown By Smmes In The Era Of Covid-19 To Weather The Vuca Crises

1. How have SMMEs in the construction industry demonstrated resilience in the face of COVID-19 in the Maphumulo Local Municipality?

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2. What factors have contributed to the resilience of SMMEs in the construction industry during COVID-19 in the Maphumulo Local Municipality?

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3. How have SMMEs in the construction industry in the Maphumulo Local Municipality adapted to changes brought on by COVID-19 to remain competitive?

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4. What strategies have SMMEs in the construction industry in the Maphumulo Local Municipality used to mitigate risks and uncertainties during COVID-19?

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5. How have SMMEs in the construction industry in the Maphumulo Local Municipality leveraged their networks and relationships to remain resilient during COVID-19?

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Objective 3: To Explore Smme Construction Sector Managers' Agility And Adaptive Style For Managing Their Company Resources During COVID-19

1. What are the adaptive strategies used by SMME construction sector managers to manage their company resources during COVID-19 in the Maphumulo Local Municipality?

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2. How have SMME construction sector managers in the Maphumulo Local Municipality adapted their management styles to address challenges brought on by COVID-19?

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3. What are the key competencies required for SMME construction sector managers to be agile and adaptive during COVID-19?

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4. How have SMME construction sector managers in the Maphumulo Local Municipality leveraged technology to manage their company resources during COVID-19?

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5. What are the challenges faced by SMME construction sector managers when it comes to managing their company resources during and post-COVID-19 in the Maphumulo Local Municipality?

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Objective 4: To Examine Various Recovery Strategies Used By Smme Construction Sector Managers To Recover From A Vuca Environment Created By Covid-19

1. What recovery strategies have been used by SMME construction sector managers to recover from a VUCA environment created by COVID-19 in the Maphumulo Local Municipality?

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2. How effective have recovery strategies been for SMME construction sector managers in the Maphumulo Local Municipality following COVID-19?

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3. What factors have contributed to successful recovery strategies for SMME construction sector managers following COVID-19 in the Maphumulo Local Municipality?

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4. What are some of the challenges faced by SMME construction sector managers when it comes to implementing recovery strategies following COVID-19 in the Maphumulo Local Municipality?

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5. How have SMME construction sector managers leveraged partnerships and collaborations to implement recovery strategies following COVID-19 in the Maphumulo Local Municipality?

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