



**IMPACT OF COVID-19 PANDEMIC ON SMALL AND MEDIUM ENTERPRISES  
WITHIN THE CONSTRUCTION INDUSTRY IN KWAZULU-NATAL PROVINCE,  
SOUTH AFRICA**

**BY**

**SINOTHI NIZO BLESSING NDLOVU**

**A DISSERTATION SUBMITTED IN FULFILMENT OF THE ACADEMIC  
REQUIREMENTS OF MASTER OF THE BUILT ENVIRONMENT (MBE) IN  
CONSTRUCTION MANAGEMENT**

**IN THE DEPARTMENT OF CONSTRUCTION MANAGEMENT AND QUANTITY  
SURVEYING, FACULTY OF ENGINEERING AND THE BUILT ENVIRONMENT**

**AT THE**

**DURBAN UNIVERSITY OF TECHNOLOGY, SOUTH AFRICA.**

**SUPERVISOR: DR. MODUPE CECILIA MEWOMO**

**JULY 2023**

## DECLARATION

I, **Sinothi Nizo Blessing Ndlovu**, hereby declare that the whole of this dissertation amounts to my own work and findings and that all references, to the best of my understanding, are accurately reported. I further give consent for my work to be digitalised for the Institutional Repository and photocopied for inter-library loan, and for the title and summary to be made accessible to outside organisations and other students.

Signature

Date

12 July 2023

Student:

Signature

Date

.....

17.07.2023 .....

Supervisor:

Signature

Date

.....

17.07.2023 .....

HoD of Department:

## **DEDICATION**

The entire dissertation is dedicated to the Lord Almighty for his protection, love and guidance in completing this dissertation. Part of the dissertation is also dedicated to my late parents, Mr. Gbangaye Ndlovu and Mrs. Thabile Ndlovu.

## **ACKNOWLEDGEMENTS**

I bless the heavenly Father for granting me the knowledge and wisdom to complete this dissertation. A special thanks go to my supervisor, Dr. Modupe Cecilia Mewomo, for her constructive and timely feedback and words of encouragement throughout this journey. Without her support, this dream would not have been accomplished. I would also like to express my heartfelt gratitude to my lovely wives (Mrs. Sindisiwe Ndlovu, Ms. Thandiwe Tonga and Ms. Mandisa Radebe) and my children (Nokubonga, Sinothile, Azania, Ayabulela, Makabongwe, Simthandile and Elihle) for their understanding, unconditional love and the various supports through the course of my studies.

## **ABSTRACT**

Globally, small and medium enterprises contribute to alleviating poverty, inequality, and unemployment in the society. However, the COVID-19 pandemic has exacerbated the challenges faced by these firms as the pandemic is having a devastating impact on their survival and operations. Against this backdrop, this study investigated the impact of the COVID-19 pandemic on small and medium enterprises within the construction and engineering industries in KwaZulu-Natal province, South Africa. The mixed-methods research was conducted to help validate the findings. The data was collected from 355 respondents, including employees, managers and SME owners. Data was collected using questionnaires and interviews. The qualitative data was analysed with the help of the NVivo, latest version 13. On the other hand, the quantitative data was analysed using Statistical Package for the Social Sciences (SPSS), latest version 26.0. The quantitative results a strong positive relationship between COVID-19 and the financial performance of small and medium enterprises. On the other hand, the qualitative findings indicated that pandemic and subsequent lockdowns resulted in revenue loss, limited spare financial resources, lack of cash reserves, financial distress, limited access to bank loan/credit, negative growth sales, loss of sales, and reduction in cash flow. Moreover, the results of the quantitative study a strong positive relationship between COVID-19 and small and medium enterprises productivity. The qualitative findings also established that the pandemic negatively affected the productivity of small and medium enterprises as a result of disruption of the global supply chain, reduction in production, decrease in production inputs, decrease in capacity use, restriction in the shipment of goods, decrease in business operations and unavailability of raw materials.

**Keywords**    **COVID-19, employees, financial performance, productivity, small and medium enterprises**

## RESEARCH PUBLICATIONS AND CONFERENCE PAPERS

- Sinothi, N.N.B and M.C. Mewomo M C., 2022. Impact of Covid-19 On the productivity of small and medium enterprises within the construction and consulting engineering companies. *In Proceedings, CIDB 12TH Postgraduate Conference held at International Convention Centre, East London, South Africa on 10 – 12 July 2022 pp. 206-215*
- Sinothi, N.N.B and Mewomo, M.C., 2022. Effects of COVID-19 on the financial performance of small and medium enterprise within construction and consulting engineering industries in South Africa. *Conference Paper: Durban University of Technology, Balito, South Africa.*
- Sinothi, N.N.B and Modupe, C.M., 2022. Impact of COVID-19 on the productivity of small and medium enterprises within the construction and consulting engineering companies in South Africa. *The 16th Built Environment Conference. Construction in 5D: Deconstruction, Digitalization, Disruption, Disaster & Development: A Second Look. 26 - 27 September 2022, Lanseria, South Africa.*

## TABLE OF CONTENTS

DECLARATION .....	i
DEDICATION .....	ii
ACKNOWLEDGEMENTS .....	iii
ABSTRACT.....	iv
RESEARCH PUBLICATIONS AND CONFERENCE PAPERS .....	v
TABLE OF CONTENTS.....	vi
LIST OF TABLES .....	xii
LIST OF ACRONYMOUS.....	xiv
CHAPTER ONE: GENERAL BACKGROUND OF THE STUDY .....	1
1.1    Introduction.....	1
1.2    Background of the Study.....	1
1.3    Problem Statement .....	3
1.4    Research Aim.....	5
1.5    Research Questions .....	5
1.6    Research Objectives.....	6
1.7    Scope of the Study .....	6
1.8    Significance of the Study .....	7
1.9    Organisation of the Study .....	7
1.10   Chapter Summary .....	9
CHAPTER TWO: LITERATURE REVIEW .....	10
2.1    Introduction.....	10
2.2    Definition of Small and Medium Enterprises .....	10
2.3    Characteristics of Small and Medium Enterprise in the Construction Industry.....	10
2.3.1   Structure of the firm.....	11
2.3.2   Access to funding.....	11
2.3.3   Managerial and leadership competence .....	13
2.3.4   Human capital .....	14
2.3.5   Ownership and management of SMEs.....	15
2.4    Profile of the South African SME Sector.....	15
2.5    Contribution of Construction Small and Medium Enterprises.....	17

2.5.1	Employment creation .....	18
2.5.2	Poverty alleviation .....	19
2.5.3	Promotion of equity and equality .....	20
2.5.4	Economic growth and development.....	21
2.6	General Overview of the COVID-19 Pandemic .....	21
2.7	Impact of COVID-19 on the Financial Performance of SMEs .....	22
2.8	Impact of COVID-19 on the Productivity of SMEs.....	24
2.9	Effects of COVID-19 on Employees in the SME Sector .....	25
2.9.1	Job loss.....	25
2.9.2	Loss of income .....	26
2.9.3	Stress and burnout.....	26
2.9.4	Addiction.....	27
2.10	Factors Influencing the Impact of COVID-19 in SME Sector.....	28
2.10.1	Human capital .....	28
2.10.2	Lack of innovation .....	28
2.10.3	Lack of access to finance .....	29
2.10.4	Inadequate government support .....	29
2.10.5	Government regulations .....	30
2.10.6	Costs.....	30
2.10.7	Teleworking and digitalisation.....	30
2.11	Strategies to Mitigate the Consequences of the COVID-19 Pandemic on SMEs .....	31
2.12	Theoretical Framework .....	32
2.12.1	Strategic theory .....	32
2.13	Conceptual Model.....	33
2.14	Chapter Summary .....	35
<b>CHAPTER THREE: RESEARCH METHODOLOGY.....</b>		<b>54</b>
3.1	Introduction.....	54
3.2	Research Paradigm.....	54
3.2.1	Pragmatism .....	54
3.4	Research Approach .....	55
3.4.1	Deductive research.....	55
3.4.2	Inductive research .....	56
3.5	Research Design.....	56



3.5.1	Descriptive research.....	57
3.5.2	Exploratory research .....	57
3.6	Research Method .....	57
3.7	Location of Study.....	58
3.8	Target Population.....	58
3.9	Sampling Strategy .....	59
3.9.1	Probability sampling .....	59
3.9.2	Non-probability sampling .....	60
3.10	Sampling Size .....	60
3.10.1	Criteria for the selection of the sample .....	62
3.11	Data Collection Instrument .....	62
3.11.1	Questionnaires.....	62
3.11.2	Interviews.....	63
3.12	Pre-Testing.....	64
3.13	Measurement Scale .....	65
3.14	Data Analysis .....	65
3.15	Ethical Considerations .....	66
3.16	Chapter Summary .....	67
CHAPTER FOUR: PRESENTATION OF QUANTITATIVE DATA .....		54
4.1	Introduction.....	54
4.2	Demographic Information of Respondents .....	54
4.3	Descriptive Statistics.....	56
4.3.1	The effect of COVID-19 on financial performance .....	57
4.3.2	The impact of COVID-19 pandemic on the productivity .....	60
4.3.3	Effect of COVID-19 on employees.....	62
4.3.4	Factors impacting SMEs in Curbing the COVID-19 Pandemic .....	64
4.3.5	Strategies to mitigate the impact of COVID-19 pandemic .....	66
4.4	Inferential Statistics .....	68
4.4.1	Validity of the measuring instrument.....	69
4.4.2	Reliability of the measuring instrument: Cronbach’s alpha.....	70
4.4.3	Pearson’s product-moment correlation .....	70
4.4.4	Regression analysis.....	73
4.5	Chapter Summary .....	74

CHAPTER FIVE: QUALITATIVE FINDINGS .....	75
5.1 Introduction.....	75
5.2 Participants Information.....	75
5.3 Objective 1: The effect of COVID-19 on financial performance .....	77
5.3.1 Theme 1: Revenue loss .....	78
5.3.2 Theme 2: Limited spare financial resources .....	79
5.3.3 Theme 3: Cash reserve.....	80
5.3.4 Theme 4: Financial distress.....	81
5.3.5 Theme 5: Access to bank loan/credit .....	81
5.3.6 Theme 6: Growth sales .....	82
5.3.7 Theme 7: Limited cash flow .....	83
5.4 Objective 2: The effect of the COVID-19 pandemic on the productivity.....	84
5.4.1 Theme 1: Supply chain .....	85
5.4.2 Theme 2: Reduction in production.....	86
5.4.3 Theme 3: Production inputs .....	87
5.4.4 Theme 4: Capacity use.....	87
5.4.5 Theme 5: Shipment of goods .....	88
5.4.6 Theme 6: Business operations.....	89
5.4.7 Theme 7: Raw materials .....	90
5.5 Objective 3: Effect of COVID-19 on employees .....	91
5.5.1 Theme 1: Job loss.....	91
5.5.2 Theme 2: Loss of income.....	92
5.5.3 Theme 3: Stress and burnout.....	93
5.5.4 Theme 4: Depression and anxiety .....	94
5.6 Objective 4: Factors Influencing the Impact Of COVID-19.....	95
5.4.1 Theme 1: Human capital .....	95
5.6.2 Theme 2: Access to finance .....	96
5.6.3 Theme 3: Government support .....	97
5.6.4 Theme 4: Government regulations.....	98
5.7 Objective 5: Strategies to Address the Effects of the COVID-19 Pandemic .....	99
5.6.1 Theme 1: Introduction of teleworking .....	99
5.6.2 Theme 2: Knowledge sharing .....	100
5.6.3 Theme 3: Training and development .....	101

5.6.4	Theme 4: Flexible work arrangements.....	102
5.6.5	Theme 5: New technologies.....	103
5.6.6	Theme 6: Reward creative talent.....	103
5.6.7	Theme 7: Managerial and leadership skills.....	104
5.7	Chapter Summary .....	105
CHAPTER SIX: DISCUSSION OF FINDINGS.....		113
6.1	Introduction.....	113
6.2	Objective 2: Effect of the COVID-19 Pandemic on the Financial Performance .....	113
6.3	Objective 2: Impact of the COVID-19 Pandemic on the Productivity .....	115
6.4	Objective 3: Effect of COVID-19 on Employees .....	116
6.5	Objective 4: Factors Influencing the Impact of COVID-19.....	118
6.6	Objective 5: Strategies to Mitigate the Impact of the COVID-19 Pandemic.....	120
6.7	Chapter Summary .....	121
CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS .....		125
7.1	Introduction.....	125
7.2	Conclusion of the Study.....	125
7.2.1	Objective 1: Effects of COVID-19 on the financial performance .....	125
7.2.2	Objective 2: impact of the COVID-19 pandemic on SMEs’ productivity.....	126
7.2.3	Objective 3: Effect of COVID-19 on employees.....	126
7.2.4	Objective 4: Factors influencing the impact of COVID-19 .....	126
7.2.5	Objective 5: Strategies to mitigate the impact of the COVID-19 pandemic.....	127
7.3	Recommendations of the Study .....	127
7.3.1	Recommendation 1: Appointment of competent human capital.....	127
7.3.2	Recommendation 2: Access to credit/bank loan .....	128
7.3.3	Recommendation 3: Government support .....	128
7.3.4	Recommendation 4: Create enabling business environment.....	129
7.3.5	Recommendation 5: Introduction of teleworking .....	129
7.3.6	Recommendation 6: Encourage knowledge sharing .....	129
7.4	Limitations of the Study.....	130
7.5	Directions for Future Research .....	130
7.6	Chapter Summary .....	131
REFERENCES .....		132
APPENDIX A: QUESTIONNAIRE.....		172

APPENDIX B: INTERVIEW PROTOCOL.....	178
APPENDIX C: ETHICS APPROVAL LETTER .....	182
APPENDIX D: TURNITIN REPORT.....	183

## LIST OF TABLES

Table 1.1	Structure of the dissertation.....	7
Table 2.1	Industry profile by firm size.....	16
Table 2.2	Provincial profile by firm size.....	17
Table 4.1	Description of the respondents.....	54
Table 4.2	Descriptive analysis.....	57
Table 4.3	The effect of COVID-19 on the financial performance of construction small and medium enterprises.....	60
Table 4.4	The impact of COVID-19 on small and medium enterprises productivity.....	62
Table 4.5	Effect of COVID-19 on employees.....	64
Table 4.6	Factors influencing the impact of COVID-19.....	65
Table 4.7	Strategies to mitigate the impact of COVID-19 pandemic.....	67
Table 4.8	Kaiser-Meyer-Olkin and Bartlett's Test.....	69
Table 4.9	Reliability of the measuring instrument: Cronbach's alpha.....	70
Table 4.10	Pearson's product-moment correlations.....	72
Table 4.11	Linear regression analysis.....	74
Table 5.1	Description of the participants.....	75

## LIST OF FIGURES

Figure 2.1	Impact of COVID-19 on small and medium enterprises and employees.....	34
Figure 5.1:	Effect of COVID-19 on financial performance.....	78
Figure 5.2	Impact of the COVID-19 pandemic on the productivity.....	83
Figure 5.3	Effect of COVID-19 on employees.....	91
Figure 5.4	Factors influencing the impact of COVID-19.....	95
Figure 5.5	Strategies to mitigate the impact of COVID-19 pandemic.....	99

## **LIST OF ACRONYMOUS**

ANOVA	Analysis of Variance
BUSA	Business Unity South Africa
EU	European Union
GDP	Gross Domestic Product
OECD	Organisation for Economic Co-operation and Development
SMEs	Small and Medium Enterprises
SMME	Small, Medium and Micro Enterprises
SPSS	Statistical Package for the Social Sciences
UK	United Kingdom
USA	United States of America

## **CHAPTER ONE: GENERAL BACKGROUND OF THE STUDY**

### **1.1 Introduction**

The chapter focused on the broad overview of the study, focusing on the impacts that the COVID-19 pandemic had on small and medium enterprises (SMEs). This chapter covers the research background, problem statement and aims. Moreover, the objectives and questions that guide the study are also highlighted in the chapter. The subsequent section described the structure or organisation of the study. The chapter concluded with the research limitation.

### **1.2 Background of the Study**

Globally, SMEs have been proven to contribute to social and economic development. These firms are seen as essential sources of job creation, especially for low-skill people (Fiseha & Oyelana 2015). It has been argued that the emergence of globalisation and technologies have created more opportunities for all businesses, including SMEs (Južnik Rotar *et al.* 2019: 3296). According to Južnik Rotar *et al.* (2019: 3297), in European Union (EU) countries, SMEs have been recognised as the drivers of economic growth because they create more jobs and alleviate poverty.

In recent years, the macroeconomic environment has shown favourable growth in the SME sector because of the increase in aggregate demand (Kruja 2013:55). The greater proportion of enterprises active in EU countries are SMEs (Laurențiu 2016:174). Evidence suggests that the SME sector contributes towards meeting the Europe 2020 strategic goals such as smart, sustainable, and employment creation (Južnik Rotar *et al.* 2019: 3298). In the EU, statistics show that SMEs comprise about 99% of enterprises (Južnik Rotar *et al.* 2019). Research by Muller *et al.* (2017) suggested that SMEs contributed about 20% towards job creation. Another study suggests that SMEs contribute approximately 66% of total job creation in the EU (Muller *et al.* 2017).



Furthermore, evidence showed that SMEs contributed about 51% to the United States Gross Domestic Product (GDP) (Longenecker *et al.* 2012). Similarly, SMEs in China employ approximately 80% of the workforce and contribute 60% to GDP (Sham & Pang 2014:1).

In South Africa, the SME sector is perceived as the engine of economic growth and sustainable development (Saah 2021; Bureau for Economic Research 2019). It has been found that nearly 90% of SMEs contributed to economic growth by creating more job opportunities, alleviating poverty, eliminating inequality, and improving GDP (Muriithi 2017:38). Similarly, Real Economic Bulletin (2017) reports that SMEs contributed about 76% toward employment creation. In 2015, more people of about 5.8 million were employed in the small business sector compared to about 3.6 million people employed in large businesses (Real Economic Bulletin 2017). Also, Business Unity South Africa (2019) indicates that SMEs have created 65% of jobs within the South African informal sector. The Small Enterprise Development Agency (SEDA) (2019) claims that South African SMEs employed approximately 10.8 million workforces in 2019, accounting for 66% of the country's employment.

However, SMEs are faced with several impediments which affect their survival (Makwara 2019; Nieuwenhuizen 2019; Beck & Cull 2014). These challenges include access to finance, government regulatory frameworks, lack of intellectual capital, limited access to the global market, lack of technological advancements, and the COVID-19 pandemic (Parrilli, Balavac & Radicic 2020; Rajagopaul, Magwentshu & Kalidas 2020). However, COVID-19 severely impacted SMEs worldwide (Omar *et al.* 2020). This is because of distortion that marred the supply chain and restrictive government laws. The hard lockdowns and restrictions on the movement of goods and people across the globe have impacted SMEs, paralysing their operations and revenue generation (Omar *et al.* 2020; Oyewale *et al.* 2020). Evidence suggests that SMEs have experienced and

continue to experience several challenges, such as a lack of critical skills and production inputs due to the disruptions in the supply chain, resulting in negative sales (Gurría 2020; Ozili 2020; Segal & Gerstel 2020) and inability to meet financial obligations (Robinson & Kengatharan 2020). According to Kemenkop-UKM (2020), more than 69% of SMEs have experienced a decline in sales turnover, 9% had challenges distributing manufactured products, and 13% had difficulty accessing business capital.

Besides, Altman (2022) argues that the pandemic negatively affected job creation in developing nations, including South Africa. A survey reveals like that many low-paid workers had been particularly affected during the initial phase of the COVID-19 (Organisation for Economic Co-operation and Development 2021). The economic havoc caused by the pandemic on businesses and employees must be investigated. Hence, this study assessed how COVID-19 impacted construction SMEs and employees.

### **1.3 Problem Statement**

COVID-19 has aggravated the problems confronting SMEs as it had affected the sustainability and operations of SMEs. According to the Institute of Business Administration (2020), the pandemic had serious implications on world economy, although preventive measures and strategies have been put in place to mitigate its effects. Ganaie *et al.* (2020) point out that more than 89% of SMEs have experienced financial-related issues, whereas 60% had challenges selling their products. In China, a survey shows 30% of firms have experienced about a 50% decline in their income. Bouey (2020) also confirmed that 28% of companies had experienced about 20% to 50% decline in their finances at the initial stage of the pandemic. According to OECD (2020), 91% of SMEs in the United Kingdom expressed their sentiments about the economic effects of the pandemic on their businesses, 69% expressed that they experienced a decline in their demands, while 45% feared of

being out of business because of the lack of government interventions. In France, a survey by OECD (2020) indicates that 72% of SMEs and 51% of those with less than EUR 500,000 turnover are now at risk of collapsing. In the Netherlands, OECD (2020) reported that nearly 85% of SMEs had financial challenges due to the COVID-19 pandemic, with micro-enterprises facing the most significant challenges. Additionally, evidence suggests that the situation of SMEs also remains the same in South Africa (Nair 2020). For instance, Nguse and Wassenaar (2021) noted that the pandemic has negatively impacted the majority of South African SMEs in many ways. Similarly, Odeku (2021) reported that 35% of SMEs in South African closed their business between the period of March and April 2020 due to the pandemic which had a severe impact on the productivity of their businesses. McLennan (2021: 25) "postulated that the pandemic has affected the construction industry by recording its most challenging year in history." Globally, it was found that the construction industry experienced a 3.1% decrease in revenue for the 2020/2021 year. Biswas, Ghosh, Kar, Mondal, Ghosh and Bardhan (2021) also confirmed that the pandemic had jeopardized the construction and engineering projects around the world, leading to the closure of many projects. In South Africa, research (Musonda & Rakolote 2022) shows that the pandemic has affected SMEs' productivity, financial performance and employees within the construction and engineering industries. Hence, this study was necessary to address these challenges.

Susanty *et al.* (2022) contend that the pandemic caused a decline labour productivity of employees because of the inability to commute to work. Moreover, research (Dai *et al.* 2021; Al-Fadly 2020) has shown that the COVID-19 pandemic reduced employees working hours as well as increased employee absenteeism because of lockdown restrictions imposed by governments. According to Godderis and Luyten (2020), the pandemic is more likely to result in another global economic recession, which will impact job creation in all sectors, including SMEs. Furthermore, studies

(García-Batista *et al.* 2021; Yang *et al.* 2021) have shown that COVID-19 pandemic increased job and emotional stress, anxiety, fatigue, and depression among workers.

The views expressed by the above scholars are also consistent with the findings by Qiu *et al.* (2020), who states that the pandemic posed serious threats to people's physical health and lives, triggered mental issues, including panic attacks, anxiety, stress, burnout and depression. Khan *et al.* (2021) agree with the above scholars that the fear of economic crisis and job losses are more likely to trigger psychological issues, including stress, depression and anxiety. On the contrary, a recent study by Popa *et al.* (2022) reveals that the pandemic had no effect on employees' mental health and their well-being. Given the above, study examined the implications of COVID-19 on SMEs as well as employees within the construction industry.

#### **1.4 Research Aim**

The study aimed to assess the impact that COVID-19 pandemic had on the construction and engineering SMEs. Additionally, it investigated the implications of the COVID-19 on employees in a view to developing strategies that will enhance their performance. Also, the study aimed to develop a conceptual model to promote SMEs' growth post-COVID-19 pandemic.

#### **1.5 Research Questions**

The following research questions support the study:

- a. What are the effects of the Covid-19 pandemic on the financial performance of small and medium construction enterprises?
- b. What are the impacts of the Covid-19 pandemic on the productivity of small and medium construction enterprises

- c. What are the effects of the COVID-19 pandemic on employees' performance in small and medium construction enterprises?
- d. What are the factors influencing the impact of the COVID-19 pandemic on small and medium construction enterprises?
- e. What strategies can be put in place to mitigate the impact of the COVID-19 pandemic on small and medium construction enterprises?

### **1.6 Research Objectives**

Below are the research objectives:

- a. To investigate the effect of COVID-19 pandemic on the financial performance of small and medium construction enterprises.
- b. To examine the impact of the COVID-19 pandemic on the productivity of small and medium construction enterprises
- c. To determine the effects of the COVID-19 pandemic on employees' performance in the small and medium construction enterprises
- d. To identify the factors influencing the impact of the COVID-19 pandemic on small and medium construction enterprises and
- e. To determine strategies that can be put in place to mitigate the impact of the COVID-19 pandemic on small and medium construction enterprises.

### **1.7 Scope of the Study**

The scope of the research applied to only the construction and engineering industries within the KwaZulu-Natal province. This implies that the findings could only apply to the construction and

engineering industries. Also, the scope of the study included only the employees, managers and owners of the construction and engineering industries.

### **1.8 Significance of the Study**

This study expands existing knowledge on COVID-19 pandemic and SMEs. The results will be a resource tool for scholars, policymakers, employees, employers and governments in making policy documents. Also, the findings will be used by SMEs, employers, and governments in mitigating the COVID-19 pandemic in the construction and engineering industries. Furthermore, the outcomes of the study will assist in improving construction and engineering SMEs' performance. Besides, the findings from the study will help to ensure the survival of SMEs during and after the pandemic. Furthermore, the findings will help reduce the mental and physical health issues experienced by employees during the COVID-19 pandemic.

### **1.9 Organisation of the Study**

The dissertation comprised seven chapters, as displayed in Table 1.1.

**Table 1.1 Organisations of the Study**

<b>Chapter 1</b>	<b>Introduction</b>  The chapter sets the foundation of the research by focusing on a detailed description of the subject matter. It adequately described the research problem that underpinned the study. The chapter also highlighted the research aims, objectives, objectives and motivation of the study. It also described the research methods to answer the stated questions and objectives. The last part of the chapter summarises the composition of various chapters.
------------------	---

<p><b>Chapter 2</b></p>	<p><b>Literature Review</b></p> <p>Chapter two reviewed empirical research and theoretical literature based on the research objectives. The chapter provided a brief description of COVID-19 pandemic, overview of South African SME sector, contribution of the construction industry, effects of COVID-19 pandemic in the construction industry, SMEs productivity and employees. Moreover, it discussed the factors influencing SMEs in mitigating COVID-19 and strategies to mitigate the impact. Furthermore, the theories that underpin the study were discussed.</p>
<p><b>Chapter 3</b></p>	<p><b>Research Methodology</b></p> <p>The chapter described how the study was conducted empirically. The chapter discussed the philosophy, design and approach that support the investigation. In addition, it describes the target population, sampling procedures and data collection instruments adopted. Furthermore, the chapter explained the data analysis process and ethical considerations.</p>
<p><b>Chapter 4</b></p>	<p><b>Quantitative Findings</b></p> <p>The chapter described the results obtained from the quantitative study.</p>
<p><b>Chapter 5</b></p>	<p><b>Qualitative Findings</b></p> <p>The chapter described the qualitative findings obtained from the study.</p>
<p><b>Chapter 6</b></p>	<p><b>Discussion of Findings</b></p>

	The chapter discussed the findings that emerged from quantitative and qualitative studies.
<b>Chapter 7</b>	<p><b>Conclusion and Recommendations</b></p> <p>Chapter seven provided the summary of previous empirical and primary findings obtained. Moreover, the chapter highlighted the various recommendations for the study. The chapter also contained the research limitations and directions for future studies.</p>

**1.10 Chapter Summary**

The chapter offered an in-depth description of the study that relates to COVID-19 pandemic and construction SMEs. It described the research problem by highlighting the gaps in existing research. The aims of the research, objectives and questions were highlighted in the chapter. The chapter outline the significance of the research. The motivation for the study was clearly stated in the chapter. Also, it contained information on the research methodology used and organisation of the study.



## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

Although various research has shown that SMEs contribute immensely to the growth and development of a country, it has been noted that COVID-19 has negatively impacted them as it slows down their operations in different ways (Mwaanga *et al.* 2021). Hence, this study was intended to examine the implications of the pandemic on SMEs within the construction industry in South Africa. This chapter reviews the empirical literature on the COVID-19 pandemic, SMEs, employers and employees involved in the construction industry. The chapter also includes, among other things, the conceptualisation and contextualisation of key constructs, the contribution of the SMEs, sources of funding for SMEs, the impact of the COVID-19 pandemic on SMEs, and the effects of COVID-19 on employees. Also, the chapter reviews the factors influencing SMEs in mitigating the pandemic. It concludes with a discussion concerning the strategies that can be put in place to mitigate the effects of the pandemic on businesses, including SMEs.

### **2.2 Definition of Small and Medium Enterprises**

Throughout literature, there exist varied definitions for SMEs. The definition of SMEs varies among scholars and practitioners. Ayandibu and Houghton, (2017) define SMEs as those enterprises which have fewer than 250 employees. In Ghana, small enterprises are defined as firms with less than 29 employees, whereas medium enterprises are considered firms with 30 to 99 employees (Agyemang *et al.* 2014) According to Foghani *et al.* (2017), the EU defines SMEs as firms with less than 250 employees and annual turnover of not exceeding £40m.

### **2.3 Characteristics of Small and Medium Enterprise in the Construction Industry**

According to Foghani *et al.* (2017), certain attributes differentiate SMEs from other businesses. Viinikainen *et al.* (2017:5) point out that existing research has attempted to differentiate SMEs

from other types of businesses using some specific criteria. The following are the characteristics of SMEs that differentiate them from other businesses or firms.

### **2.3.1 Structure of the firm**

Walton (2016) defines an organisational structure as a systematic process of delegating power and authority among employers. Thompson (2013) opined that organisational structure represents the framework that describes the needs of a project and how to achieve success in organising such a project. Rao et al. (2003:21) believed that the SME structure is organic in nature. According to Rao *et al.* (2003:27), SMEs are identified because of the lack of standardised and formal working relations. The organic structure provides more flexibility for SMEs to adapt to environmental changes. Abosede *et al.* (2019) construction SMEs are typical sole proprietorship firms, or in most cases, family-owned businesses having supervisors who are mainly casual workers. European Commission (2012) postulates that construction SMEs have not more than 250 employees. Similarly, Kamal and Flanagan (2014) argue that construction SMEs have not more than 200 permanent employees.

### **2.3.2 Access to funding**

A firm's size determines its access to credit or loan (Lakuma *et al.* 2019). Melvin and Boyes (2013) and Kshetri (2011) stated that access to funding is a critical success factor for SMEs. Researchers such as Valaskova, Kliestik, Svabova and Adamko (2018) and Akhmadeev and Manakhov (2015) have largely examined different aspects of small, medium and micro enterprises (SMMEs) globally. However, the literature review suggested that most studies focus on SMEs funding (Balcerzak *et al.* 2017; Kurschus *et al.* 2017). Also, Global Entrepreneurship Monitor (2017), International World Bank (2017) and Monetary Fund (2016) affirmed that SMEs have low or no access to funding as compared to large enterprises. Compare to large enterprises; evidence

suggested that SMEs globally struggle to get access to funding. For example, in their study, Rahman and Belas (2017) explored the factors affecting SMEs and access to SMEs funding in the Czech Republic and Slovakia. The findings revealed that SMEs and companies owned and run by women had few funding opportunities from financial institutions and had difficulties surviving in the competitive environment. Baños-Caballero *et al.* (2016) argued that when compared to large companies, SMEs experience banking discrimination due to their capacity.

According to Vir-glerova *et al.* (2016), banks have justified their discrimination towards SMEs because their financial statements cannot be audited; hence it is problematic for SMEs to pay back their loan. This challenge had resulted in a large number of SMEs not having access to financial resources. In their study, Kersten *et al.* (2017) found that most SMEs have difficulties accessing credit for several reasons, such as limited capital requirement and collateral security. For these reasons, governments have directed their efforts towards developing strategies to promote financial access to SMEs.

In Ghana, starting and running a small and medium scale business is challenging and access to funding is limited with stifles growth opportunities (Thompson Agyapong *et al.* 2018). Similarly, Ametepey, Jnr and Cobbina (2022) postulate that the growth of construction SMEs in Ghana is affected by access to funding. Tayeh *et al.* (2019) believe that although the invaluable contribution of construction SMEs in the sector, they are affected by many challenges, where about 60% always fail in the initial few years. Tayeh *et al.* (2019) contend that the growth of construction SMEs is hampered by financial infrastructure, lending capacity and liquidity. These findings by Tayeh *et al.* (2019) collaborated with Aigbavboa and Thwala (2014), who found that the challenges confronting black-owned small and medium construction companies in Nelspruit-Mbombela Municipality, South Africa, include cash flow and financial management skills.

In South Africa, access to funding by SMEs is determined by factors, including collateral and annual business turnover (Asah *et al.* 2020). Also, World Investment Report (2017) affirmed that formal financial institutions in South Africa and other African countries faced several challenges that prevented them from lending to SMEs. These challenges are lack of proper legislation dealing with default cases (Baby & Joseph 2016), high transactional costs (Kapunda 2015), and lack of credit rating agencies (Mutoko 2015). Similarly, Siddik, Kabiraj and Joghee (2017) point out that most banks are often not willing to grant credit facilities, especially to SMEs because of difficult economic conditions. Other studies (Global Entrepreneurship Monitor 2015; Mqaba 2015; Mapfumo 2015) have also confirmed that access to formal financial support for SMEs in South Africa is one of the greatest challenges.

### **2.3.3 Managerial and leadership competence**

For SMEs to survive in this turbulent environment, the owners must have the ability to manage, motivate and influence their employees to achieve the desired goals. It is suggested that in enterprises where the owners possess good managerial skills, they stand a better chance of longevity. Das and Kumar and Kumar (2010) suggested that leadership competencies include knowledge, skills and competencies required by leaders and managers to be successful. Marques (2015) recommended that for SMEs to respond appropriately to the changing business environment, owners must understand the changes in the business environment.

Gray *et al.* (2012) postulated that management ‘know-how’ helps firms adopt better strategies. Management know-how refers to the managerial competencies required by the business owner to run the business successfully. It includes managing employees and accounts. It has been argued that the ability of SMEs to become competitive requires managers to possess the skills to forecast changes and prepare the organisation to respond appropriately (Garavan *et al.* 2015).

Unfortunately, Ganu and Boateng (2012) claimed that the absence of leadership and managerial skills is the most significant restrictive factor for SME development. According to Ganu and Boateng (2012), SMEs find it challenging to compete in the global market because most owners lack the managerial and leadership competencies. Moreover, research by Arasti, Zandi and Talebi (2012) and Hamrouni and Akkari (2012) confirmed that the reasons for failure in SMEs includes; leadership and management skills. Fatoki (2014) also confirm that SMEs failure is due to the lack of management and functional skills. Furthermore, research (Gombarume & Mavhundutse 2014; Missioura 2014; Goriwondo 2013; Finscope Micro, Small and Medium Enterprises Survey 2012) confirms that most SMEs fail because they lack managerial skills. Schlosser (2015) also concluded that by embracing leadership development practices, SMEs can improve the management of their employees.

Ametepey, Jnr and Cobbina (2022) postulate that numerous challenges, including a lack of management skills, hamper the growth of construction SMEs. The findings by Ametepey, Jnr and Cobbina (2022) are consistent with Sarvari et al. (2021), who established that construction SMEs in developing countries of the Middle East experienced different human resource management challenges, including a lack of managerial skills.

#### **2.3.4 Human capital**

According to Sullivan and Sheffrin (2003), human capital consists of the competencies, knowledge, and personality traits required to perform a task. The study of Dar and Mishra (2019) identified four dimensions of human capital in SMEs which are attributed to; education, knowledge, experience, and skills. Irshad *et al.* (2018) point out that human capital comprises the skills and knowledge required by organisations to achieve their strategic goals.

Research by Wiklund and Shepherd (2003) and Galunic and Rodan (1998) revealed that human capital plays a vital role in producing innovation and offers managers the skills required to take advantage of new business opportunities. Muda and Rahman (2016) argued that because of the new knowledge economy SMEs must acquire intellectual capital, including human, structural and relational capital to compete in the competitive business environment. Likewise, Waweru *et al.* (2012) observed that human capital development constitutes the most vital tool for improving SMEs' performance. Irshad *et al.* (2018) discovered that human capital impacted positively on the SMEs' performance. Compared to larger enterprises, SMEs are usually less predisposed toward seeking and employing knowledge workers. This challenge forces SME owners and managers to rely on personal means of disseminating knowledge and the ability to learn through action and cooperation.

### **2.3.5 Ownership and management of SMEs**

SMEs are owned and managed by the owners (Okello-Obura & Matovu 2009). In their study, Chen *et al.* (2014) argued that SMEs are mostly owned and run by family members. SMEs involve only a limited number of employees and managers. Moreover, the decision-making in SMEs rest with the owner.

## **2.4 Profile of the South African SME Sector**

Post-1994, South Africa is still faced with several challenges (high unemployment, shortage of skills, mass illiteracy, crime, poverty and inequality) that need urgent solutions (Chimucheka 2013). Besides government intervention, SMEs are considered viable tools for addressing the social, economic and political challenges facing South Africa. The South African SME sector is diverse, ranging from primary, secondary and tertiary sectors. Mukumba (2014) points out that

about 90% of SMEs contribute to more than 50% of job creation and GDP . Table 2.1 shows the industry profile of the SMEs.

**Table 2.1 Industry profile by firm size**

<b>Main industry</b>	<b>Own account</b>	<b>Micro (1-4)</b>	<b>Small (5-9)</b>	<b>Medium (10-49)</b>	<b>Large (50+)</b>	<b>SME overall</b>	<b>Ratio of SME to large</b>
<b>Agriculture</b>	1.0	5.7	6.1	6.1	6.2	5.2	0.8
<b>Mining</b>	0.0	0.2	0.9	0.5	7.5	0.4	0.1
<b>Manufacturing</b>	10.4	7.1	7.5	10.8	19.3	9.5	0.5
<b>Utilities</b>	0.0	0.3	0.7	0.7	1.6	0.5	0.3
<b>Construction</b>	7.3	16.3	11.7	9.1	4.8	10.6	2.2
<b>Wholesale &amp; Retail</b>	52.3	29.1	27.9	24.6	10.4	30.4	2.9
<b>Transport</b>	6.5	11.5	6.8	4.2	7.0	6.4	0.9
<b>Financial</b>	9.0	10.0	14.6	16.3	15.7	13.7	0.9
<b>CSS</b>	13.4	19.8	23.9	27.7	27.7	23.3	0.8
<b>Other</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.7
<b>Total</b>	100	100	100	100	100	100	-

**Source: Statistics South Africa (2017)**

As reflected in Table 2.1, the most SMEs operate within the wholesale, retail community social services, financial and construction industry. Table 2.2 further provides the distribution of South African firms.

**Table 2.2 Provincial profile by firm size**

<b>Province</b>	<b>Own account</b>	<b>Micro (1-4)</b>	<b>Small (5-9)</b>	<b>Medium (10-49)</b>	<b>Large (50+)</b>	<b>SME overall</b>	<b>Ratio of SME to large</b>
<b>Western Cape</b>	8.5	12.7	17.3	15.6	15.9	14.2	0.9
<b>Eastern Cape</b>	10.5	12.0	10.1	8.9	6.3	9.9	1.6
<b>Northern Cape</b>	0.8	2.1	2.9	2.5	1.9	2.2	1.2
<b>Free State</b>	4.6	5.5	6.7	5.6	4.0	5.6	1.4
<b>KwaZulu-Natal</b>	16.6	16.6	16.2	17.1	17.5	16.8	1.0
<b>North West</b>	4.5	5.0	5.4	5.4	7.3	5.2	0.7
<b>Gauteng</b>	31.9	26.5	27.7	32.7	33.9	30.6	0.9
<b>Mpumalanga</b>	10.1	7.3	6.7	6.0	6.7	7.0	1.0
<b>Limpopo</b>	12.6	12.3	7.1	6.3	6.5	8.6	1.3
<b>Total</b>	100	100	100	100	100	100	-

**Source: Statistics South Africa (2017)**

From Table 2.2, majority of the SMEs are located in Gauteng (30.6%) and followed by KwaZulu-Natal (16.8%). By contrast, Free State had small number of SMEs and large businesses because of low economic activities and the concentration on agriculture and mining (StatsSA, 2017).

## **2.5 Contribution of Construction Small and Medium Enterprises**

Extant literature suggested that globally, SMEs promote economic growth and development because they are at the forefront of job creation and poverty alleviation (Real Economy Bulletin (REB) 2017; Cant *et al.* 2014; Kongolo 2010). South African SMEs contributed to employment creation, poverty alleviation, and promotion of equality (van Staden, 2022; Msomi & Olarewaju 2021). According to Ali (2021), construction SMEs play vital roles in the construction industry. Ali (2021) points out that improvement in construction SMEs' performance will substantially



impact their performance and the sustainable development of a country. The following section below provides an adequate description of the contribution made by the South African SME sector.

### **2.5.1 Employment creation**

Since the 1994 transition, unemployment remains a critical issue affecting South Africa. Early researchers in the likes of Altman (2001), Edwards (2000), Klasen and Woolard (2000), Borat and Hodge, (1999) and Kaplinsky (1995) have alluded to the fact that unemployment in South Africa is an old phenomenon. Alenda-Demoutiez and Mügge (2020) observed that the widespread of unemployment remains a fundamental political challenge in South Africa. According to Banda, Ngirande and Hogwe (2016), unemployment remains high among the South African youth. Lings (2012) contended that the statistics from Statistics South Africa suggested that nearly 4.526 million people were unemployed in the fourth quarter of 2011. Since then, unemployment in South African has been on the rise with the latest being 32.6% as at the first quarter of 2021 (Quarterly Labour Force Survey 2021).

Given the unprecedented rise in unemployment in South Africa, particularly among the youth, the government, labour practitioners and academics from different fields have acknowledged the importance of the SME sector in mitigating this challenge. Lee, Herold and Yu (2016) believed that globally SMEs employed more 50% of the workforce in the private sector. Organization for Economic Cooperation and Development (2016) reported that SMEs have a crucial function in creating employment. Kongolo (2010) advocated that SMEs account for 76% of the total job creation in South Africa between 2004 and 2007. Jili, Masuku and Selepe (2016) agreed that all businesses, including SMEs reduce unemployment rate. Likewise, in India, a study (Rajeevan *et al.* 2015) indicates that SMEs alone created nearly 60 million jobs for the citizens. Chaturvedi and Saha (2019) argue that in Asia, SMEs create employment opportunities, many of which include

decent jobs. Moazzem and Halim (2019) claim that decent jobs contribute to salary increases, increased productivity and poverty alleviation.

In Nigeria, a study by Ali (2021) confirms that construction SMEs made significant contributions toward sustainable development, including employment creation. The above findings are also consistent with Hove (2016), who established that construction companies registered under the SME sector have contributed to job creation in Zimbabwe, Ghana, and South Africa.

### **2.5.2 Poverty alleviation**

Apart from unemployment, poverty is considered a global concern for many countries, including South Africa. Martin and Petersen (2018) contended that there is universal definition of the term poverty. Jansen *et al.* (2015) defined poverty as limited monetary (insufficient income to purchase necessities for survival) and non-monetary resources (poor service delivery, social isolation, poor education and crime rate). According to Chimucheka (2013), it was revealed that poverty is significantly higher in developing nations as compared to the developed nations. Since the transition in 1994, poverty remains the socio-economic challenge facing majority in South Africa, especially the Africans. The latest data revealed that although there was a general decline in poverty between 2006 and 2011, the poverty level of individuals in South Africa witnessed unprecedented increase in 2015 from 53.2% to 55.5% (Statistics South Africa 2018). Fransman and Yu (2018) contended that one reason for high poverty rate in South Africa is corruption. Due to the rising level of poverty, governments have identified SMEs as the key to poverty alleviation.

A study carried out by Nagaya (2017) revealed that SMEs positively influence economic growth through poverty alleviation. Vermeulen (2011) agreed with other scholars that SMEs are critical for poverty reduction. Fiseha and Oyelana (2015) found that SMEs contribute to job creation, wealth creation and poverty eradication. Moreover, research by Sobrinho (2016) and Katua (2014)

confirmed that SMEs are the cornerstone of the South African economy because they contribute to job creation and poverty eradication. Similarly, Manzoor *et al.* (2019) found that SMEs are essential for job creation and poverty alleviation. Likewise, the empirical research conducted by Maksimov *et al.* (2017) revealed that SMEs reduce poverty, especially among the poor. Moreover, in Pakistan, a study by Ali (2013) shows that promote economic development, reduce poverty and create jobs. Furthermore, in their study, Begum and Abdin (2015) acknowledged that SMEs impact poverty reduction and job creation in Bangladesh. According to the National Development Plan 2030 (2018), construction SMEs in South high rate of poverty and unequal distribution of income.

### **2.5.3 Promotion of equity and equality**

Many years ago, the majority of South African, especially blacks, experienced various forms of discrimination. According to Smith (2008), South Africa was perceived as an unequal country during the apartheid due to the segregation policies and laws introduced by the government. The Council for Higher Education (2015) reported that during the apartheid regime, gender and racial discriminations were common in most organisations.

Since 1994, the new government has initiated several reforms to transform the workplace to correct the imbalance of the past (Dingindawo *et al.* 2016). Research (Ebrahim 2018; Van der Westhuizen 2015) shows that one of the primary objectives of the South African government is to encourage organisations to actively design policies and procedures aimed at eliminating discriminatory workplace practices. Research by Basson (2017) and Moraka *et al.* (2015) suggested that several laws, such as the Employment equity Act was introduced to eliminate unfair discrimination, thereby promoting equality in the South African workplace. However, after 27 years of the transition, inequality and discrimination still prevail in South Africa. Moreover,

Matotoka and Odeku (2021) pointed out that South African women are poorly represented at managerial levels since the advent of democracy.

Aspen Network of Development Entrepreneurs (2012) reported that SMEs provide a social security nest for people who were previously disadvantaged in South Africa.

#### **2.5.4 Economic growth and development**

Throughout the review of literature, there is a consensus among scholars that SMEs are the key drivers to economic growth and development in both advanced and developing countries. In the United States of America, for instance, a study reveals that the SMEs increased the growth of the economy (Edmiston 2012). Moreover, evidence suggested that Swedish SMEs account for 56% of economic wealth production (Edmiston 2012). In India, a study by Nagaya (2017) also confirmed that the SME sector makes a significant contribution toward economic growth. Commenting further, Bello *et al.* (2018) observed that SMEs in Nigeria promote economic growth and act as vehicles for sustainable development. The findings from above countries are not different from South Africa. According to Small Enterprise Development Agency (2018), the South African SMEs' contribution to the economy remains underappreciated. Turyakira, Venter and Smith (2012) also concur that SMEs are catalysts for economic growth and development.

#### **2.6 General Overview of the COVID-19 Pandemic**

The corona virus, known as the COVID-19 pandemic, was first detected in March 2019 in Wuhan City-Hubei Province, China (Khosro & Noor 2021). The pandemic has changed life, relationships, economies and human rights worldwide. The corona virus is a type of virus that effects animals and human beings. Herawati (2021) points out that within a short period, the virus spreads quickly to other countries, such as Italy, France, United States of America and to mention a few. According to Nguse and Wassenaar (2021), the virus affected both people humans and animals globally. On

January 30, 2020, the World Health Organization (WHO) declared the virus an international public health emergency. South Africa confirmed its first of COVID-19 infection on 5 March 2020. Since then, the virus became an integral part of the society (Nguse & Wassenaar 2021).

## **2.7 Impact of COVID-19 on the Financial Performance of SMEs**

Herawati (2021) believed that the COVID-19 outbreak had impacted all businesses around the world. Herawati (2021) further claimed that more businesses were closed as a result of policies issued by the government globally. Beglaryan and Shakhmuradyan (2020) also confirmed that the pandemic brought about supply and demand shocks. Research by Balla-Elliott *et al.* (2020), Barrero *et al.* (2020), Dua, *et al.* (2020), Lindsay *et al.* (2020) and OECD (2020) showed that although SMEs and large enterprises are impacted by this health crisis, its impacts are severe on SMEs. For instance, OECD (2020) conducted 40 surveys in countries and found that about 50% of SMEs experienced a huge revenue loss and fear of being out of business in the future. According to Dua *et al.* (2020), a survey carried out by McKinsey indicated about 1.4-2.1 million small businesses are more likely to shut down their operations permanently due to the COVID-19 pandemic. Dua *et al.* (2020) further observed that the most vulnerable businesses are experiencing challenges such as liquidity and revenue shock.

McKinsey and Company (2020) reported that in the United Kingdom, about 80% of SMEs achieved stable revenue before the outbreak of the virus but experienced revenue decline since the start of the pandemic. Cowling, Brown and Rocha (2020) also discovered that approximately 120,000 UK SMEs are at risk of liquidity because of the inability to generate revenue. Cowling *et al.* (2020) added that due to the COVID-19 pandemic, many UK SMEs had limited access to financial resources, resulting in low savings. Bartik *et al.* (2020) also posited that about 500,000 UK SMEs experienced financial distress because of the pandemic. Demirgüç-Kunt, Peria and

Tressel (2020) alleged that access to credit facilities is a critical challenge confronting SMEs during the COVID-19 pandemic. Howell *et al.* (2020) suggested that sources of funding for SMEs fall dramatically during the pandemic. Brown, Rocha and Cowling (2020) expressed a similar sentiment that COVID-19 affected the sources of finance of UK SMEs.

In Asia, a survey conducted by Sonobe *et al.* (2021) revealed that the most SMEs experienced decrease in sales revenues in the first half of 2020 than the previous years. According to Sonobe *et al.* (2021), firms in Indonesia experienced a significant decline in revenue than other countries such as Viet Nam and Malaysia. It was found that most firms in Indonesia lost more than 40% of their sales (Sonobe *et al.* 2021). A survey by Bartik *et al.* (2020) also confirms that the pandemic has caused a decrease in the revenue base of SMEs. According to Bartik *et al.* (2020), nearly 43% of small businesses in US had temporarily closed due to the pandemic.

Zeegen *et al.* (2020) agreed that COVID-19 decreased income and increased the expenditure of businesses in the United States. According to Irawan (2020), SMEs in Eastern Indonesia are affected by the COVID-19 pandemic because of social restrictions that affected income generation activities and changes in business patterns. Similarly, Carolina (2020) argued that the COVID-19 presents financial challenges to SMEs, including cash flow problems, risk of bankruptcy, and limited access to the stimulus package. Other scholars like Fabeil *et al.* (2020), Shafi *et al.* (2020) and Winarsih *et al.* (2020) also concurred that the reduction in SMEs revenue was due to reduction of production and low sales. In Australia, a study by OECD (2020) reveals that 41% witnessed a 50% decline in income during the pandemic. About 85% of SMEs in the Netherlands were in severe financial distress due to the pandemic (OECD 2020). Commenting further on the pandemic, Wickramasinghe *et al.* (2020) emphasized that the greater proportion of SMEs income dwindled by social distancing and international travel bans. Wickramasinghe *et al.* (2020) opined that most

of the SMEs are on the verge of collapse. Eggers (2020) agreed that SMEs are having financial issues, hence their survival is jeopardized.

The situation in Asia and European countries is not far from Africa. Bartik *et al.* (2020) also posited that about 500,000 UK SMEs experienced financial distress because of the pandemic. Mhlanga and Ndhlovu (2020) argued that the lockdown and restrictions had adversely impacted many businesses and socio-economic activities in South Africa. Furthermore, a survey by United Nations Development Programme (2020) reports that most SMEs have closed permanently because of the pandemic.

## **2.8 Impact of COVID-19 on the Productivity of SMEs**

According to Hasanat *et al.* (2020), government restrictions to address the spread of infectious diseases have affected the supply chain and many economies. Scholarly research by Omar *et al.* (2020) and Oyewale *et al.* (2020) suggested the lockdown restrictions and government measures have impacted businesses, especially SMEs, paralysing their operations and productivity. Gurría (2020) and Segal and Gerstel (2020) concurred that SMEs had experienced a decline in production inputs due to disruption that marred supply chains, affecting their productivity capacity negatively.

OECD (2020b) reported SMEs had experience a decline in the production level of about 1/5 to 1/2. Gopinath (2020) states that the lockdowns and quarantine measures have led to serious decrease in capacity use, leading to a decrease in productivity. Haren and Simchi-Levi (2020) argued that the pandemic had resulted in a decreased production, especially in China and USA, affecting trade. According to Nicola *et al.* (2020), about 98% of the sampled firms were concerned that the pandemic negatively affected their business operations. Knieps (2020) and Yap (2020) also contended that the hard lockdowns had disrupted the supply chain, resulting in a decline in the production of goods from factories.

Korankye (2020) found that in Ghana, the COVID-19 pandemic has really impacted the operations of SMEs. In Jordan, Bartik *et al.* (2020) argued that the crucial issues affecting the performance of SMEs at time of crisis is the possibility to provide the raw material required for production, resulting in a decrease of production. In South Africa about 9% of SMEs had ceased operations permanently due to unavailability of raw materials (StatsSA 2020a).

## **2.9 Effects of COVID-19 on Employees in the SME Sector**

Globally, a large number of employees are affected negatively by the COVID-19 pandemic. (Robinson & Kengatharan 2020). Posel, Oyenubi and Kollamparambil (2021), in their study, discovered that the pandemic has affected employees in all sectors. These challenges ranges from loss of employment to mental health issues. The effects of the pandemic on employees are discussed as follows.

### **2.9.1 Job loss**

Throughout the world, it is believed that the pandemic has caused massive job loss. McKinsey (2020) reports that at least two of three jobs within the SME sector are at risk in European countries. According to Wanberg, Ali and Csillag (2020), most businesses were shut down by the COVID-19 pandemic, resulting in millions of job losses in the US. In Australia, about 68% of employment within the SME sector is at risk (McKinsey 2020). According to Welter *et al.* (2020), between 850 000 and 1.6 million employees within the SME sector are likely to lose their job. In Canada, a survey by McKinsey (2020) reveals that women-owned enterprises have retrenched about 80% workers. Laborda *et al.* (2021) found that SMEs that did not get any financial assistance from the Spanish government during the COVID-19 pandemic responded by laying off employees. Larsson and Gustavsson (2020) and Lu *et al.* (2020) also confirmed that the pandemic had resulted in job loss in the SME sector. In South Africa, it has been found that one out of every three



employee has lost their job since April 2020 (Ranchhod & Daniels 2021). Other studies (Posel *et al.* 2021; National Income Dynamics Study- Coronavirus Rapid Mobile Survey 2020) have also concurred that the pandemic has resulted in massive job loss, especially among SMEs employees.

### **2.9.2 Loss of income**

According to Robinson and Kengatharan (2020), the pandemic has affected SMEs' ability to fulfill their financial obligations. Wanberg *et al.* (2020) point out that several workers have lost their income because of lockdown restrictions and business closures. Jain *et al.* (2020) found that in South Africa, about 17% of employees within the SME sector were currently not working and had yet to receive payment. A report by the International Labour Organization (2020) reveals that nearly 1.6 billion employee in the SME sector have been affected by the pandemic, resulting in 60% decline in their income.

### **2.9.3 Stress and burnout**

Afulani *et al.* (2021) noted with concern that the pandemic has increased stress and burnout among employees. Sriharan *et al.* (2020) postulated that the health measures (social isolation, unexpected employment disruptions, and social distancing) adopted by governments have unprecedented effects on mental well-being. Mock (2020) claimed that 47% of respondents surveyed have requested for psychological support due to COVID-19 pandemic related factors. Similarly, in a study conducted by British Medical Association (2020), approximately 44% of respondents expressed that they were experiencing burnout, depression, anxiety and other mental health issues due to COVID-19 pandemic.

Meyer *et al.* (2021) stated that the closure of companies during the lockdown in many countries has forced many employees who did not lose their jobs to work from home. The remote working and social distancing pose several health issues for employees including stress and burnout.

Studies by Rudolph *et al.* (2020) and Van Bavel *et al.* (2020) suggested that although government measures are aimed at preventing the spread of the disease, these measures are psychological stressors in their own right.

Kopacz *et al.* (2019) and Lancet (2019) emphasised that the scale and rapid spread of COVID-19 worsen stress and burnout among workers. In a similar study, Nwosu (2019) argued that people who experienced job loss may exhibit more mental health symptoms such as stress and burnout because of their unemployment.

#### **2.9.4 Addiction**

It is a well-known fact that traumatic attack is on the increase because of alcohol consumption. Moreover, the COVID-19 pandemic presents more unique problems for people with substance use disorders and recovery. Avery *et al.* (2020) observed that the social restrictions aimed at reducing the spread of the COVID-19 may lead to an increase in stress and anxiety. Pollard *et al.* (2020) found that as a result of the lockdown restrictions in US, there was a 54% increase in sales of alcohol for March 2020, compared with the previous year. Given this development, WHO warned that alcohol use is more likely to worsen health issues and risk-taking behaviours (WHO 2020).

Likewise, Wang *et al.* (2021) confirmed that in addition to the risks arising with substance misuse, those with substance disorder are more likely to be infected with the COVID-19 disease and experience worse outcomes such as higher risk of hospitalization and mortality. Dunlop *et al.* (2020) also confirmed that drug addicts are more likely to be vulnerable during the COVID-19 epidemic. From the above scenarios, it can be argued that the COVID-19 could make addicts more vulnerable to complications of substance use.

## **2.10 Factors Influencing the Impact of COVID-19 in SME Sector**

The Institute of Business Administration (2020) reports that although the relief plans (i.e. financial assistance, electricity bills exemption, social assistance to employees against loss of job, and tax exemption), SMEs are still struggling to survive. The factors affecting SMEs' survival during the pandemic are discussed as follows.

### **2.10.1 Human capital**

The success of every organisation depends on its intellectual capital. Unfortunately, many SMEs still struggle to survive during the pandemic because of limited intellectual capital. Asad *et al.* (2020) expressed the concern that SMEs lack human resource required to increase their performance amidst the COVID-19 outbreak. Chohan (2020) also concurred that because of lack of skills, SMEs are unable to handle the situation. Eggers (2020) confirmed that due to the lack of human capital, SMEs are under great threat. Dugassa (2012) also noted that SMEs lack human capital because of inadequate training of their employees. The lack of training in SMEs may lead to the production of substandard products, which may affect their market share (Gopinath, 2020). A study Malik *et al.* (2020) revealed that many firms, including SMEs lost their human capital because of lockdowns.

### **2.10.2 Lack of innovation**

Ortiz-Villajos (2014) believed that innovation is a critical factor that determines the survival of any business. Gaynor (2002) argues that innovation is an important strategic tool that promotes the survival and continuity of enterprises. Schumpeter (1942) also confirmed that a firm's survival is strongly associated with its innovation practices. Winarsih *et al* (2020) argued that only innovative SMEs are less impacted by the COVID-19 pandemic. Eggers (2020) confirmed that SMEs' performance has been very poor because of the lack of innovation.

### **2.10.3 Lack of access to finance**

Throughout the world, access to finance is the chief problem facing SMEs. OECD (2016) claimed that SME failure could be attributed to inadequate finance. According to Abanis and Arthur (2013), SMEs' performance is affected by inadequate funding and high finance costs. Shah *et al.* (2013) also confirm that SMEs lack access to bank credit because of the limited collateral security and high costs of loan. The International Monetary Fund (2017) reported that the problem associated with lack of finance cripple SMEs, resulting in a decline in economic development. In Sub-Saharan Africa, SMEs are still disproportionately affected by inadequate financing despite the availability of financial institutions. Sok *et al.* (2017), in their study, also argued that lack of finance hampers the growth of SMEs in Africa.

According to Prohorovs and Beizitere (2015), SMEs' sustainability, growth and development are impacted by access to finance. Likewise, Fowowe (2017) demonstrated that the inadequacy of capital affects the growth and expansion of SMEs worldwide. United Nations Conference on Trade and Development (2020) believed that SMEs are unable to address the challenges associated with the COVID-19 pandemic. Other scholars (Bartik *et al.* 2020; Cowling *et al.* 2020; Giupponi & Landais 2020) confirm that SMEs have limited access to financial resources due to the lockdowns and movement restrictions. It can therefore be suggested that the lack of adequate financing limits the ability of SMEs to address challenges posed by the COVID-19 pandemic.

### **2.10.4 Inadequate government support**

Malik *et al.* (2020) found that in Pakistan, the government cannot finance SMEs, especially during the COVID-19 pandemic. The situation also remains the same in UK, where it was reported that 41% businesses have already been closed as a result of inadequate support from the government. Asad *et al.* (2020) also observed that although the governments of many countries have taken

initiatives to support SMEs withstand the crisis, they are woefully inadequate to ensure that survival. For this reason, Ganaie *et al.* (2020) suggested that SMEs require specific support such as access to loans, tax exemption, and utility subsidies.

### **2.10.5 Government regulations**

Throughout the world, governments have introduced several measures in an attempt to limit the spread of the COVID-19. It is an undeniable fact that these measures have affected various enterprises, including SMEs negatively. Wang *et al.* (2020) mentioned that government actions (lockdown and quarantine) towards mitigating the spread of the disease have also impacted the inability of SMEs to address the problems that are related to the COVID-19 pandemic

### **2.10.6 Costs**

Throughout the literature, SMEs seem to have difficulties mitigating the pandemic because of the costs involved. Evidence suggested that the costs for prevention and changes in the world of work are relatively higher for SMEs because of the size of their firms and lack of innovation (Cusmano and Raes 2020). It has further been argued that SMEs have limited access to information because of the pandemic; hence, they are unaware of the strategies to reduce the impact (Cusmano and Raes 2020).

### **2.10.7 Teleworking and digitalisation**

Telework involves the integration of technology and location as a platform for work (Bélanger and Allport 2008). The essence of teleworking is to provide the employees an opportunity to perform their tasks remotely and keep the organisation running. Abulibdeh (2020) mentioned that the adoption of teleworking in crisis such as this could help reduce the negative impact of the pandemic. In the United States, research showed that nearly 37% employees were engaged in telework practices before the pandemic (Jones 2015). Teleworking is more common in knowledge-

intensive services and manufacturing industry (Grundke *et al.* 2018). In Japan, a recent survey suggests only 10-20% of SMEs have adopted teleworking during the pandemic (Okubo 2020). The reasons that account for the difference include a lack of infrastructure and workers' skills to use digital tools. In Germany, McKinsey (2020) reports that 88% of SMEs relied on physical work arrangements during the pandemic.

### **2.11 Strategies to Mitigate the Consequences of the COVID-19 Pandemic on SMEs**

Since the outbreak of the COVID-19 pandemic, several firms have adopted a range of measures to mitigate its impact on their business activities. Asad and Kashif (2021) opined that flexible organisations encourage their workers to work remotely. The authors argued SME owners need to make decisions that will ensure the flexibility of the businesses to withstand the economic challenges imposed by the pandemic. This perspective underscores teleworking, where employees are allowed to perform their tasks remotely. Besides, evidence suggested that to mitigate the challenges associated with the pandemic, many enterprises, including SMEs need to implement innovative practices such as knowledge sharing and transfer, training and development, teamwork etc. (Winarsih *et al.* 2020).

Thi Minh *et al.* (2022) suggest that organisations should encourage knowledge sharing among employees to maintain and enhance organisational performance. Singh *et al.* (2021) also shared a similar view that to address the emerging challenges facing effective knowledge management in the current crisis, organisations find creative ways to improve knowledge sharing among employees. This explains that knowledge sharing among employees is a viable strategic tool for mitigating the consequences of the pandemic in organisations, including SMEs.

## **2.12 Theoretical Framework**

There exist various theories on SMEs worldwide. Nevertheless, this study aims to review the relevant theories on SMEs sustainability and adopt the most appropriate one to help SMEs address the challenges of the COVID-19 pandemic. The review focused on resource-based view of the firm, knowledge-based view (KBV) of the firm, networking theory, strategic theory and transaction cost reduction theory. However, the strategic theory is the best theoretical lens for this study.

### **2.12.1 Strategic theory**

It is believed that the survival of many businesses, including SMEs, depends on their strategic fit (Dunning 2015). According to Omalaja and Eruola (2011), this theory focuses on determining the organisation's long-term goals and how to achieve such goals. Omalaja and Eruola (2011) further point out that strategy is a game plan or action determining how an organisation's resources could be allocated and utilised to create value. Therefore, the essence of the strategic theory is to determine how best an organisation can achieve its goals during competitive pressure. Harrison (2020) advocates that to address the changes in the business environment, firms must adapt to their environment by creating value and exploiting opportunities. The view expressed by Harrison (2020) underscores the importance of strategic theory. Feldman (2020), the strategic management theory has gained popularity recently, especially during the pandemic, because it addresses issues such as how firms create value across different markets.

SMEs require strategies to survive in the global marketplace during and after the pandemic. Therefore, when adopted, the strategic theory will assist SMEs in positioning themselves and their product in the market to better compete with other rivals. Moreover, when adopted, the theory will enable SMEs to develop appropriate managerial strategies based on situations and conditions they

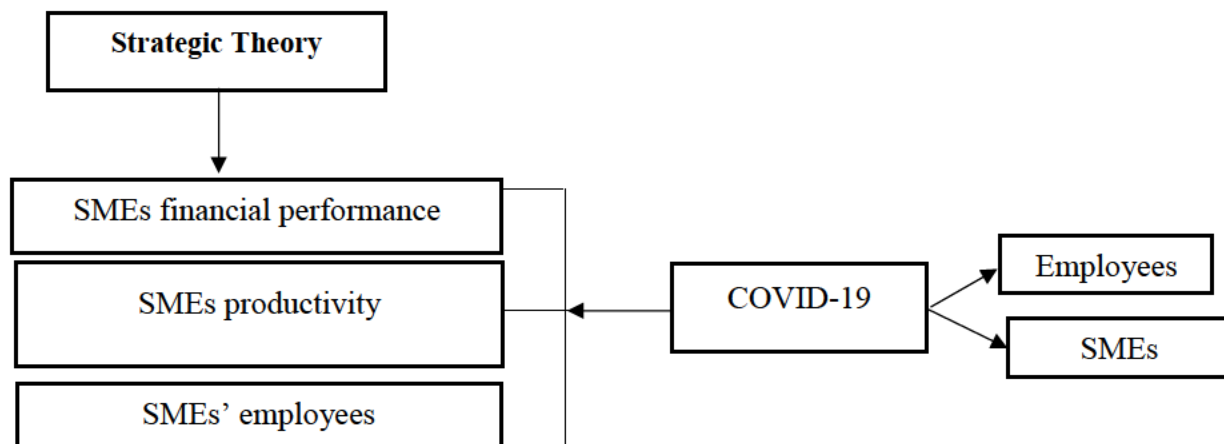
encounter during the pandemic. Other findings by Omoruyi and Makaleng (2022) showed that SMEs whose main business strategy and goals are based on trust, commitment and product quality might be in a better position for success in the COVID-19 era if strategic communication systems are integrated and implemented effectively. The authors recommended that SMEs should rather focus more on improving their relationship communication strategies to enhance relationship trust and commitment to both consumers and suppliers. By so doing, product quality may gain all-around business chain appreciation.

Also, it has been found that to protect this vital sector from collapse due to the COVID-19 crisis, many governmental and nongovernmental organizations (NGOs) have provided various forms of support to SMEs. Governments have adopted several policies that will mitigate the negative effects of this crisis (Ahmad et al 2020). SMEs have received some financial support from local and international NGOs and financial institutions during the COVID-19 crisis (Song et al. 2020). Additionally, SME owners have adopted a number of practices and strategies to confront the ramifications of the crisis (Thorgren & Williams 2020). During the early outbreak of the pandemic, authors expected that SMEs' responses and practices would focus on financial spending reductions (Thorgren & Williams 2020), digital technology exploitation (Guo et al 2020) and disaster management (Eggers 2020).

### **2.13 Conceptual Model**

Figure 2.1. shows the conceptual model upon which the study is predicated.





**Figure 2.1 Impact of COVID-19 on small and medium enterprises and employees**

As shown in the model, it is assumed that the adaption or integration of strategic management theory will significantly impact SMEs' financial performance, productivity and employees within the construction industry. This assumption is supported by a study conducted by Handoyo, Suharman, Ghani and Soedarsono (2023), which states that business strategy and operational efficiency positively and significantly affect firms' performance. From the strategic theory point of view, the availability of resources is a crucial factor that can impact a firm's performance and productivity.

The model further explains that COVID-19 affects SMEs' financial performance, productivity and employees. This assertion is supported by scholarly research discussed in the previous chapter. According to OECD (2020), more than 50% of SMEs experienced revenue loss and fear of being out of business in the future due to the pandemic. Wickramasinghe *et al.* (2020) emphasised that the greater proportion of SMEs' income dwindled by social distancing and international travel bans.

Gurría (2020) and Segal and Gerstel (2020) argued that SMEs experienced a decline in production inputs due to disruption that marred supply chains, affecting their productivity capacity negatively.

Wanberg *et al.* (2020) found that most businesses were shut down by the COVID-19 pandemic, resulting in millions of job losses in the US. In a similar study, Kretchmer (2020) discovered that job losses in the US stood at 30 million, while in Japan, they stood at 1.76 million. In Australia, about 68% of employment within the SME sector is at risk (McKinsey 2020). Bassier (2020) found that in South Africa, about 17% of employees within the SME sector were currently not working and had yet to receive payment. In addition, the International Labour Organization (2020) reports that nearly 1.6 billion employees in the SMEs have been affected by the pandemic, resulting in 60% decline in their income.

## **2.14 Chapter Summary**

The extant literature suggests that the pandemic has caused major disruption to SMEs and large enterprises and corporations. It caused a decline in SME revenue and productivity. In addition, it has negative implications on employees in terms of job loss, loss of income, increased stress, burnout, and addiction. Moreover, it has been found that SMEs are unable to cope with the pandemic due to factors such as limited access to finance, inadequate government support, lack of human capital, lack of managerial and leadership competencies, and lack of innovation. To mitigate the challenges associated with the COVID-19, extant literature reviewed several measures such as the introduction of innovative practices, employee training and development, teleworking, and technology.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

The chapter described how the research was conducted. The methodological issues addressed in this chapter included research paradigm, research approach, research design, research strategy/method, study population, study location, sampling techniques and sample size, research measurement scale, instrument for data collection, pilot study, reliability and validity of the measuring instrument, data analysis, ethical issues and research limitations.

### **3.2 Research Paradigm**

Denzin and Lincoln (2011) believed that the concept of “paradigm” represents the basic set of beliefs that describes the researcher’s worldview. Scholarly researchers, such as Haigh, Kemp, Bazeley and Haigh (2019) and Rehman and Alharthi (2016) explained research paradigm as the belief system based on: ontology (knowledge of a reality), epistemology (nature of knowledge), research methodology (an approach used to construct knowledge) and axiology (beliefs regarding values and morals in research). It must be noted that a specific approach or philosophy guides every study. Thus, research stems from assumptions. Nevertheless, this study was underpinned by the epistemological approach, which relied on pragmatism. The reasons for the link between the epistemological approach and pragmatism are stated below.

#### **3.2.1 Pragmatism**

Pragmatism originated from the early writings of Dewey (1981), James (1907) and Pierce (1878) and was refined by scholars such as Rescher (2000) and Rorty (1999). Pragmatism addresses the weaknesses in both positivist and interpretivism paradigms (Feilzer 2010). Pragmatism is perceived as a deconstructive paradigm suggesting that using mixed methods in research helps

improve truth and reality. Pragmatists are more concerned about discovering facts (Alghamdi & Li 2013; Tashakkori & Teddlie 2011).

According to Kaushik and Walsh (2019), pragmatism assumes that investigators should adopt the philosophical approach that best suits a specific research problem. Pragmatists assume that single or multiple realities can be examined empirically (Creswell & Clark 2017). Therefore, pragmatists assume that there is an objective reality that exists outside human experience. Hence, such reality exists in the environment and is encountered through human experience (Morgan 2014). The primary assumption underpinning pragmatism is that knowledge and reality are based on beliefs and habits that are socially constructed. Hothersall (2019) argues that research into social life and social work can be deemed effective if it meets its goals.

Pragmatism was the best paradigm for the study because this philosophy was proposed as the most suitable for mixed-methods research (Teddlie & Tashakkori 2009). As substantiated by researchers such as Creswell and Clark (2017) and Morgan (2014), pragmatism is more suitable for mixed-methods research, which helps to elaborate and validate the research findings. Moreover, pragmatism was the most appropriate because it gives researchers some degree of flexibility to decide on the research methods, techniques, and procedures that best suit the research aims.

### **3.4 Research Approach**

The deductive and inductive approaches are the two main approaches commonly used in research. This research integrated or combined both approaches to empirically investigate the subject matter.

#### **3.4.1 Deductive research**

Scholars which ascribe to this approach often begins with general premises and from these they deduce specific cases (DeGracia *et al.* 2014). Deduction approach is mostly in mathematics and

physics where premises can be expressed mathematically. Therefore, it was adopted in the quantitative research to enable the researcher to make use of statistical technique to make sense of the data. Furthermore, this approach was chosen because it enables researchers to test the theory that was developed from the review of literature, as in this case. Besides, deductive approach was adopted to ensure the generalisation of the findings as substantiated by Babbie (2020).

### **3.4.2 Inductive research**

Unlike deductive approach, which is typically used in quantitative research, the inductive approach on the other hand applies to qualitative research. With this approach, researchers usually draw inferences from specific observable phenomena to general rules, or “knowledge expanding” (Worster 2013). Scholars such as Zalaghi and Khazaei (2016) and Creswell and Plano Clark (2007) suggested researchers who ascribe to this approach often begin from the bottom-up, using subjective views to build themes and develop a theory to connect the themes. The inductive approach was used because it is more open-ended and ensures an in-depth exploration of a particular subject matter.

### **3.5 Research Design**

According to Labaree (2013). A research design describes how the researcher should go about answering the research questions. For Jongbo (2014), a research design in an organised enquiry that provides an accurate information to solve a particular research problem. Mukherjee (2017) also shares a similar opinion that a research design is a plan that assists the researcher in choosing the problem that appears in the research regarding what and how important the study is. There are different kinds of research designs, but this study took the form of descriptive and exploratory research.

### **3.5.1 Descriptive research**

Descriptive research concerns with describing a particular individual, or group (Singh 2014). According to Rahi (2017), descriptive approach is used to obtain information on the present condition of the research phenomenon. The scholars, such as Atmowardoyo (2018); Engel and Schutt (2016) confirm that descriptive research allows the investigator to accurately describe the research phenomenon as well as the characteristics of the population. Siedlecki (2020) points out that with descriptive research, the investigator does not manipulate the variables; instead, he/she only describes the sample or variables. The descriptive approach was used because it allows researchers to quantify a phenomenon using descriptive and inferential statistics. Moreover, descriptive research enabled the researcher to identify and accurately describe research problems.

### **3.5.2 Exploratory research**

Singh (2014) claims that exploratory research is also called “formulative research.” It aimed at formulating a problem that requires a thorough investigation. According to Rahi (2017), an exploratory study involves finding new insights into a particular issue or event. Thus, exploratory research attempts to question and evaluate a phenomenon in a new light. An exploratory study is commonly conducted when the investigator lacks sufficient information and knowledge of the subject matter being investigated (Engel & Schutt 2016). This approach to research was adopted because the researcher intended to know much more about the subject matter being investigated. The exploratory study helped the researcher gain an adequate knowledge of the phenomenon.

## **3.6 Research Method**

This study utilised the mixed-methods approach. This method is also known as the mixed-method research. According to McKim (2017), when using mixed method, an important question that must be addressed is whether it will add value to the study. Azorín and Cameron (2010) state that mixed-

method research is useful for collecting and analysing multiple data in one study. Hunter and Brewer (2015) also point out that mixed methods involve combining and integrating more than two research approaches or techniques in a single study (Molina-Azorin 2016). Likewise, Regnault, Willgoss and Barbic (2018) point out that mixed-method helps to address research questions from multiple perspectives. Regnault et al. (2018) further advocate that mixed methods enhance the creation of conceptual models and the development of research instruments. Furthermore, Dawadi *et al.* (2021) postulate that the mixed-method approach combines post-positivism and interpretivism frameworks in a single study.

The mixed methods research was adopted because it adds more value and contributes to the advancement a phenomenon. Furthermore, mixed-methods was useful in providing detailed elaboration of the research findings from the qualitative method with the findings the quantitative method.

### **3.7 Location of Study**

The study was conducted in construction and engineering companies: Escongwenibhb Consulting Engineers, New Biginnings, Mandlethu Consulting, ISU Engineering (Pty) Ltd, JCR Transport and Baithusi Consulting, registered with the CIDB. These companies were chosen because they were among SMEs impacted by the COVID-19 pandemic. Another justification for choosing the companies was because of the convenience and access to information. Moreover, these companies were selected for the study because they fall under the construction and engineering industry.

### **3.8 Target Population**

Population involves people or things from which the researcher draws inferences (Rahi 2017). In other words, a target population refers to the specified group of respondents that the investigators draw inferences (Sekaran & Bougie 2019). The target population of the study include SMEs that

were registered with the Construction and Engineering Industry Development Board (CIDB) in KwaZulu-Natal province. According to CIDB (2021) report, as of 2022, approximately 77 459 SMEs in the engineering and construction industry in KwaZulu-Natal were registered with the. Hence, the total population was the employees and owners of these 77 459 engineering and construction SMEs registered with the CIDB.

### **3.9 Sampling Strategy**

According to Rahman *et al.* (2022), sampling represents the process and technique of choosing a representative sample of the target population to help describe the characteristics of the population. The probability sampling applies to quantitative study, while non-probability sampling relates to qualitative study. The probability and non-probability sampling were adopted because of the nature of the investigation (mixed-methods research). The probability sampling technique was used to select the respondents for the quantitative phase of the study. In contrast, the non-probability sampling technique was used to select the participants for the qualitative phase.

#### **3.9.1 Probability sampling**

Probability sampling originates in quantitative research, where every unit of the population or individual is given an equal chance to participate in the study (Rahi 2017). According to Grinnell and Unrau (2010), the probability sampling technique provided all the elements in the target population an equal chance to be part of the study. This sampling strategy has various techniques, but stratified sampling was used to select the respondents in the quantitative phase.

The stratified sampling technique is used when the population from which the sample will be drawn is heterogeneous (Etikan & Bala 2017). Similarly, Rahman *et al.* (2020) argued that the stratified sampling technique involves subdividing the target population into multiple subgroups (strata) based on similar characteristics such as age, gender, education and ethnicity. The stratified



sampling method was used because it helps to obtain adequate samples from all strata in the population. Moreover, the stratified sampling was used to ensure the representativeness of the sample.

### **3.9.2 Non-probability sampling**

The non-probability sampling is commonly applied in qualitative research. It allows the investigator to select the participants based on his subjective judgment (Collis & Hussey 2013). This sampling strategy also has various sampling techniques such as quota sampling, accidental sampling, convenience sampling, snowball sampling, and purposive or judgmental sampling. Nevertheless, the purposive sampling was the most suitable for this study.

The purposive sampling is also known as “judgement sampling”. A purposive sampling is the process whereby the researcher uses his own judgment to select a group of people who knows the problem (Malhotra & Birks 2007). According to Sekaran and Bougie (2016), the purposive sampling is used to select subjects with adequate knowledge of a particular phenomenon or event. Elfil and Negida (2017) claim that with purposive sampling, the subjects are selected deliberately as the researcher deems necessary.

The purposive sampling technique was used to ensure that only people with adequate knowledge of the subject matter were selected. Additionally, the purposive sampling was the most suitable because it provides a wide range of non-probability sampling techniques for the researcher to draw on as substantiated by Sharma (2017).

### **3.10 Sampling Size**

Sekaran and Bougie (2016) advocate that it is impossible for a researcher to select samples from the whole target population. Therefore, a representative sample is required from the target

population. A sample has been defined as a subset or unit of the target population from which the data has been collected (Rahman et al. 2018). Thus, a sample is the smallest unit of the target population that the researcher draws inferences from. According to Andrade (2020), the required sample size must be determined when the study is proposed. Andrade (2020) contends that a large sample size is unnecessary and unethical, whereas a small sample size is unscientific and unethical. Therefore, the 95% confidence level and 5% confidence interval were adopted in determining the sample size. The sample size (383) was determined using the sample calculator. The formula for calculating the sample size are stated below.

$$SampleSize = \frac{\frac{z^2 \cdot p(1-p)}{e^2}}{1 + \frac{z^2 \cdot p(1-p)}{e^2 N}}$$

Where:

N = total population

e = Margin of error

p = standard deviation

z = score

It is recommended that the total number of participants for interviews should range from 7-30 (Sekaran & Bougie 2016). Therefore, the 11 participants selected for the interviews was sufficient to allow the researcher to collect rich and valuable information. The purpose of including owners and employees in the qualitative and quantitative research was to obtain divergent views on the research findings.

### **3.10.1 Criteria for the selection of the sample**

The selection criteria used include the following. Firstly, the study includes only the employees and owners in Escongwenibhb Consulting Engineers, New Biginnings, Mandlethu Consulting, ISU Engineering (Pty) Ltd, JCR Transport and Baithusi Consulting. Secondly, the study was limited to only the employees who had adequate knowledge and experience of the research problem or phenomenon. Thirdly, only the participants with more than one year of working experience in their respective organisations.

### **3.11 Data Collection Instrument**

Questionnaires and interviews were the measuring tools used in this study.

#### **3.11.1 Questionnaires**

A questionnaire comprises questions designed to collect useful information from a particular group of people (Sekaran & Bougie 2016). A self-designed questionnaire was adopted. According to Thom (2007), because the self-designed questionnaire is not restricted to strict psychometric property testing, the researcher must consider test–retest reliability and content validity. Since the study adopted the self-designed questionnaire, a pre-testing was carried out. The self-constructed questionnaire was used because it allows the researcher to quickly and effectively collect data from respondents.

Because of the COVID-19 pandemic, an online survey method was employed. The questions were captured on the Google Form and the link (<https://forms.gle/UwEuBm4YYpcjjGjJA>) sent to respondents.

The questionnaire was categorised into six section:

- Section A- Biographical information of the respondents;

- Section B- Impact of COVID-19 pandemic SMEs financial performance;
- Section C- Effects of COVID-19 pandemic on SMEs productivity;
- Section D- Impact of COVID-19 pandemic on the employees in construction SMEs
- Section E- Factors influencing the impact of COVID-19 pandemic on construction SMEs
- Section F- Strategies that can help mitigate the effects of the pandemic on SMEs

### **3.11.2 Interviews**

According to Abiwu (2016), interviews are qualitative data collection tools where the interviewer interacts with the interviewees face-to-face or via telephone, Zoom, or Skype. Philipps and Mrowczynski (2021) opines that interviews are social science researchers to expand their understanding of how humans view and act within the social world. Interviews are commonly used in qualitative research because they ensure more accurate screening and capture verbal and non-verbal cues of the participants. An open-ended or unstructured interview grid was designed to collect the data. According to Weller *et al.* (2018), an open-ended interview explores topics in depth through an interaction between the researchers and participants. This data collection method was used because it produces lengthy narratives that enable the researcher to describe the findings adequately.

There are different methods of collecting data through interviews. However, due to the COVID-19 pandemic, Zoom and telephonic interviews were conducted. The interviews were audiotaped, having obtained the participants' consent. This method of data collection involves moderate costs and quick to conduct. It also has the advantage of wide geographic coverage without dramatic increase in costs. The interviews were structured into six categories:

- Section A- Biographical information of the respondents;
- Section B- Impact of COVID-19 pandemic SMEs financial performance;

- Section C- Effects of COVID-19 pandemic on SMEs productivity;
- Section D- Impact of COVID-19 pandemic on the employees in construction SMEs
- Section E- Factors influencing the impact of COVID-19 pandemic on construction SMEs
- Section F- Strategies that can help mitigate the effects of the pandemic on SMEs

### **3.12 Pre-Testing**

A well-designed pilot study serves as the road map for research (Maldaon & Hazzi 2015). Pre-testing (pilot study) represents a small version of research aimed at determining the feasibility or trustworthiness of a particular study. Wadood *et al.* (2021) argue that a pre-test is conducted to enhance the reliability, validity and practicability of the measuring instrument, particularly in management and social science research. The measuring instruments were tested among 10 participants in some selected construction and engineering companies. Reliability, validity and trustworthiness of the measuring instruments were determined prior to the large-scale research. In research, reliability represents the extent to which the results can be reproduced when repeated under the same conditions. In contrast, validity represents the extent to which the research instrument measures what it is intended to measure. On the other hand, trustworthiness determines the degree to which the meanings obtained from the study in interpreted sufficiently (Sekaran & Bougie 2016). The Cronbach's alpha coefficient was used to determine the reliability of the questionnaire, whereas KMO was used to measure the validity of the questionnaire.

In the qualitative study, credibility, dependability, conformability and transferability were used to determine the trustworthiness of the findings. The credibility of the research findings was enhanced through triangulation, peer briefing and adequate engagement with the participants. The dependability was assessed an audit trial and code-recode of the data. Moreover, the transferability of the findings was determined through the selection of participants who have adequate

information of the subject matter. Also, the conformability of the findings was achieved triangulation of the results.

### **3.13 Measurement Scale**

The 5-point Likert scale was used to measure each item in the survey, ranging from strongly agree (5) to strongly disagree (1).

### **3.14 Data Analysis**

The Statistical Package for the Social (27.0) was used to analyse the quantitative data. Descriptive and inferential statistics were computed to interpret the findings. These statistics include Cronbach's alpha, factor analysis, Pearson's correlation, regression analysis, analysis of variance and t-test.

According to Barbera *et al.* (2020), Cronbach's alpha is the commonly used statistical tool in social science research that demonstrates that tests and scales adopted for particular research fit the purpose. It is recommended that the acceptable reliability for each scale should be 0.70 or more. Shrestha (2021) suggests that factor analysis is used to extract only the factors from the data set. Factor analysis is one of the most commonly used statistical techniques for summarising and reducing a data to a more manageable one. In this study, Principal Component Analysis was performed to extract only the loadings equal to 0.30 or beyond. The varimax method was used as the factor rotation method. Moreover, the Kasier – Meyer –Olkin (KMO) measure of Sampling Adequacy was used to determine the sample adequacy. The KMO scores range from 0 to 1, where: > 0.90 = marvellous; > 0.8 = meritorious; >0.7 = middling; >0.6 = mediocre; >0.5 = miserable and <0.5 = unacceptable.

The Pearson correlation coefficient ( $r$ ) is the most common way of measuring a linear correlation. It is a number between  $-1$  and  $1$  that measures the strength and direction of the relationship between two variables (Armstrong 2019). Linear regression is a form of inferential statistic used for identifying and characterising relationships among multiple factors. Thus, regression analysis employs a model that describes the relationships between the dependent variables and the independent variables in a simplified mathematical form (Montgomery, Peck & Vining, 2021). Analysis of variance (ANOVA) is a statistical technique to analyse variation in a response variable (continuous random variable) measured under conditions defined by discrete factors.

Moreover, the NVivo software (13.0) was used to analyse the qualitative data. The NVivo software helped identify the themes, sub-themes, and patterns from the data set. The study employed the thematic analysis to organise, summarise and report the findings.

### **3.15 Ethical Considerations**

The research approval was granted by Institutional Research Ethics Committee at the Durban University of Technology. The following ethical principles were adhered in this study:

- **Anonymity:** The respondents' personal details were replaced with pseudonyms within the dissertation and future publications. The researcher ensured that participants' details, such as names and identity numbers, were not collected.
- **Non-maleficence:** There was no risk involved in the study. The necessary preventive measures were taken to avoid harm to the participants.
- **Informed consent:** An informed consent form was distributed to all the participants. It contained information, including the research methods and procedures, benefits associated with the study and description of the researcher. The informed consent form contained a clause that indicated that the data collected would be solely for academic purposes.

- **Voluntary participation:** The participation in this study was purely. No incentive was offered to the participants to induce them. Additionally, the participants had the opportunity to withdraw from the study without any consequences.
- **Plagiarism:** The sources and material cited in this study were acknowledged and referenced.

### **3.16 Chapter Summary**

The chapter adequately described how the study was conducted. The study adopted pragmatism, given its flexibility in allowing researchers to use different approaches in a single study. The mixed method approach was to add value to the validity of the findings and create new knowledge. The data was collected using interviews and questionnaires. The data was analysed using SPSS and NVivo, respectively.



## **CHAPTER FOUR: PRESENTATION OF QUANTITATIVE DATA**

### **4.1 Introduction**

This chapter involves the presentation and analysis of the quantitative findings. The questionnaire was distributed to 373 respondents, and 344 was retrieved from the respondents. Hence, the active response rate was 92.2%, while the none-response rate was 7.8%. The analysis was based on the active response rate. The analysis of the data was done per the research objectives:

### **4.2 Demographic Information of Respondents**

Table 4.1 contains information on the respondent's bio-data, including gender, age, race, educational qualification, organisation belong to, tenure and position occupied in the organisation. From Table 4.1, males represented 52% of the respondents, while females accounted for 48% of the respondents. Furthermore, 22.7% of the respondents had of 31-35 years, 20.1% had of 36-40 years, 19.2% had 26-30 years, 18% had of 41-45 years, 9% had 46-50 years, and 6.1% had 20-25 years, 4.7% were between the ages of 51-60 years and 0.3% were above 60 years. Also, the results showed that 64% were Africans, 13.4% were Indians, 13.1% were Whites, and 9.6% were coloureds. The information suggests that 23.5% of the respondents had Diploma, 18.6% had Honours/BTech, 17.7% had Bachelor's Degree, 15.4% had Masters, 14% had Postgraduate Diploma and 4.4% had Doctorate. The findings further revealed that 49.7% of the respondents belonged to medium enterprises, 32.8% to small enterprises, 9.3% to micro enterprises and 8.1% to other enterprises. Besides, it was found that 28.2% of the respondents had worked for 6-10 years, 24.7% had worked for 2-5 years, 22.7% had worked for less than 2 years, 18.9% had worked for 11-15 years, and 3.8% had worked for 16-20 years. Lastly, evidence suggests that 40.1% of the respondents were employees, 25.6% were manager, 18.3% were senior employees, 12.2% were assistant managers and 3.8% hold different positions.

**Table 4.1: Description of the Respondents**

<b>Variables</b>	<b>Biographic Info.</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Gender	Male	179	52.0
	Female	165	48.0
Age	20-25	21	6.1
	26-30	66	19.2
	31-35	78	22.7
	36-40	69	20.1
	41-45	62	18.0
	46-50	31	9.0
	51-60	16	4.7
	61 and above	1	0.3
Race	African	220	64.0
	Indian	46	13.4
	Coloured	33	9.6
	White	45	13.1
Education	Diploma	81	23.5
	Postgraduate Diploma	48	14.0
	Bachelor's Degree	61	17.7
	Honours/BTech	64	18.6
	Masters	53	15.4
	Doctorate	15	4.4
	Other (please specify)	22	6.4
Category of organisation	Micro	32	9.3
	Small	113	32.8
	Medium	171	49.7

	Other	28	8.1
Years of experience	< 2	78	22.7
	2-5	85	24.7
	6-10	97	28.2
	11-15	65	18.9
	16-20	13	3.8
	> 21	6	1.7
Positions	Employee	138	40.1
	Senior employee	63	18.3
	Assistant managers	42	12.2
	Manager	88	25.6
	Other	13	3.8

**Source: Field Data (2022)**

### 4.3 Descriptive Statistics

The variables measured in this study were assessed by asking them to respond to each question on 1 to 5-point Likert scale. Using the scale of 1-5, the minimum mean score acceptable for the study was 0.3. This is consistent with Olanrewaju *et al.* (2020), who adopted a similar limit approach in their study. The results indicated that the mean scores range from 4.28 to 4.45. The effect of COVID-19 on employees had the highest value (Mean = 4.45), closely followed by the factors influencing COVID-19 (Mean = 4.38), strategies to minimise the effects of the pandemic (Mean = 4.33), impact of COVID-19 on SMEs productivity (Mean = 4.33) and the effect of COVID-19 on SMEs financial performance (Mean = 4.28). The findings are shown in Table 4.2.

**Table 4.2: Descriptive analysis**

Dimension	Mean	95 % Confidence Interval		Std. Dev.	Min.	Max.
		Lower Bound	Upper Bound			
		Financial performance	4.28			
Productivity	4.33	4.26	4.39	0.62555	1.00	5.00
Employees	4.45	4.39	4.51	0.58565	1.00	5.00
Factors influencing COVID-19	4.38	4.32	4.43	0.56988	1.00	5.00
Strategies	4.33	4.28	4.40	0.54948	1.00	5.00

As shown in Table 4.2, the effect of COVID-19 on employees was the strongest construct measured in this research. In contrast, the impact of COVID-19 on SMEs financial performance was the moderate variable in the study. The findings demonstrated there is still room for improvement. Therefore, frequency analyses were undertaken to analysis where the improvement lies. The findings are presented in the subsequent section.

#### **4.3.1 The effect of COVID-19 on financial performance**

To make the analysis very simple and avoid repetition, the strongly disagree and disagree results were combined as disagree. In contrast, the strongly agree and agree results were merged as agree. Therefore, the analysis was done using 3-point Likert scale, where: Disagree = 3, Neither agree nor Disagree = 2 and Agree = 1. Chakrabartty (2020) argues that combing scores of Likert items is permitted for clear theoretical benefits and calculation easiness.

From Table 4.6, 58.3% of the respondents disagreed that they suffered revenue loss during the pandemic, 12.2% said that they neither agreed nor disagreed that they suffered revenue loss, and 29.5% agreed that they suffered revenue loss. Also, 3.8% of the respondents disagreed that they had limited spare financial resources, 4.7% said that they neither agreed nor disagreed that they had limited spare financial resources, and 91.5% agreed that they had limited spare financial resources. In addition, 3.2% disagreed that they lacked cash reserve, 7% believed that they neither agreed nor disagreed that they lacked cash reserve, and 89.8% agreed that they lacked cash reserve. Furthermore, 3.75% of the respondents disagreed that they were in financial distress, 5.2% said that they neither agreed nor disagreed that they were in financial distress, whereas 91.1% reported that they were in financial distress. Moreover, 7% of disagreed that they had limited access to bank loans, another 7% said that they neither agreed nor disagreed that they had limited access to a bank loan, and the remaining 86% agreed that they had limited access to a bank loan. Besides, 2.9% of the respondents denied negative growth sales during the pandemic, 1.7% indicated that they neither agreed nor disagreed with negative growth sales, whereas 95.4% agreed that they had negative growth sales.

Besides, 4.1% of the respondents disagreed that they experienced a loss of sales during the pandemic, 15% suggested that they neither agreed nor disagreed that they experienced a loss of sales during the pandemic and 94.4% agreed that they experienced a loss of sales during the pandemic. It was also found that 2.4% of the respondents disagreed that they experienced a reduction in cash flow, 1.5% said that they neither agreed nor disagreed they experienced a decrease in cash flow, whereas 96.1% agreed that they experienced a reduction in cash flow. The study discovered that 12.5% of the respondents agreed that their organisations were bankrupt, 9.3% indicated that they neither agreed nor disagreed that they were bankrupt, and 78.2% agreed

that their organisations were bankrupt. The findings showed that 0.9% disagreed that they had access to the stimulus package, 9.3% neither agreed nor disagreed that they had access to the stimulus package and 89.8% agreed that they had access to the stimulus package. Finally, the results suggested 5.8% of the respondents disagreed that they experienced a decrease in demand, 7.6% neither agreed nor disagreed that they experienced a decrease in demand, whereas 86.6% agreed that they experienced a decrease in demand. Table 5.3 shows the results.

**Table 4.3: The effect of COVID-19 on the financial performance of construction small and medium enterprises**

No	Statement	A	N	DA
FP1	Revenue loss	58.3	12.2	29.5
FP2	Limited spare financial resources	3.8	4.7	91.5
FP3	Lack of cash reserves	3.2	7.0	89.8
FP4	Financial distress	3.7	5.2	91.1
FP5	Limited access to bank loan/credit	7.0	7.0	86.0
FP6	Negative growth sales	2.9	1.7	95.4
FP7	Loss of sales	4.1	1.5	94.4
FP8	Reduction in cash flow	2.4	1.5	96.1
FP9	Bankruptcy	12.5	9.3	78.2
FP10	Limited access to the stimulus package	0.9	9.3	89.8
FP11	Decrease in demand	5.8	7.6	86.6

#### **4.3.2 The impact of COVID-19 pandemic on the productivity**

To make the analysis very simple and avoid repetition, the strongly disagree and disagree results were combined as disagree. In contrast, the strongly agree and agree results were merged as agree. Therefore, the analysis was done using 3-point Likert scale, where: Disagree = 3, Neither agree

nor Disagree = 2 and Agree = 1. Chakrabartty (2020) recommends that combining scores of Likert items is permitted for clear theoretical benefits and calculation easiness.

About 1.8% of the respondents disagreed that the COVID-19 pandemic brought about a distortion of the global supply chain, 0.6% neither agreed nor disagreed that the pandemic brought about a distortion of the global supply chain, while 97.6% disagreed that the pandemic brought about a distortion of the global supply chain. Also, 3.5% of the respondents disagreed that the pandemic resulted in a reduction in production, 4.7% said that they neither agreed nor disagreed that the pandemic brought about a decrease in production, and 91.8% agreed that the pandemic resulted in a reduction in production. Furthermore, 2.6% of the respondents disagreed that there was a decrease in production inputs, 4.4% neither agreed nor disagreed that there was a decrease in production inputs, and 93% agreed that there was a decrease in production inputs. In addition, 2% of the respondents disagreed that they experienced a decrease in capacity use, 6.7% neither agreed nor disagreed that the pandemic brought about a reduction in capacity use, whereas 91.3% agreed that they experienced a decrease in capacity use.

Moreover, 6.7% of the respondents disagreed that there was a restriction in the shipment of goods, another 6.7% neither agreed nor disagreed that there was a restriction in the shipment of goods and the rest of the 86.6% agreed that there was a restriction in the shipment of goods. Besides, 3.4% disagreed that the pandemic brought about a decrease in business operations, 2.9% neither agreed nor disagreed that there was a decrease in business operations, whereas 93.6% agreed that there was a decrease in business operations. Lastly, 9.1% of the respondents disagreed that there was availability of raw materials, 7% said that they neither agreed nor disagreed that there was availability of raw materials, while 83.9% agreed that there was unavailability of raw material.



**Table 4.4: The impact of COVID-19 on small and medium enterprises productivity**

No	Statement	DA	N	A
P1	Disruption of the global supply chain	1.8	0.6	97.6
P2	Reduction in production	3.5	4.7	91.8
P3	Decreased in production inputs	2.6	4.4	93.0
P4	Decrease in capacity use	2.0	6.7	91.3
P5	Restriction in shipment of goods	6.7	6.7	86.6
P6	Decrease in business operations	3.4	2.9	93.6
P7	Unavailability of raw materials	9.1	7.0	83.9

#### **4.3.3 Effect of COVID-19 on employees**

In order to make to make the analysis very simple and avoid repetition, the strongly disagree and disagree results were combined as disagree. In contrast, the strongly agree and agree results were merged as agree. Hence, the analysis was done using 3-point Likert scale, where: Disagree = 3, Neither agree nor Disagree = 2 and Agree = 1. According to Chakrabarty (2020), combining scores of Likert items is permitted for clear theoretical benefits and calculation easiness.

About 3.2% of the disagreed that the experienced job loss, 2% said that their neither agreed nor disagreed that they experienced job loss, while 94.8% agreed that they experienced job loss. Furthermore, 3.8% of the respondents disagreed that the experienced loss of income, 0.3% indicated that they neither agreed nor disagreed that there was a loss of income and 93.2% agreed

that they experienced loss of income. Also, 4.1% of the respondents disagreed that they were unemployed during the pandemic, 4.4% said that they neither agreed nor disagreed that there were unemployed, whereas 91.5% agreed that they experienced unemployment during the pandemic. Additionally, 3.8% of the respondents disagreed that they were laid off because of the COVID-19 pandemic, 4.9% suggested that they neither agreed nor disagreed that they were laid off, while 91.3% agreed that they were laid off. Besides, the findings showed that 2.6% of the respondents experienced increase in stress during the pandemic, 1.7% said that they neither agreed nor disagreed that there was an increase in stress and 95.7% agreed that they experienced increase in stress.

Moreover, 2.9% of the respondents disagreed that they experienced increase in burnout because of the COVID-19 pandemic, 1.7% indicated that they neither agreed nor disagreed that they experienced burnout and 95.4% agreed that they witnessed an increase in burnout. The results revealed that 1.5% did not expressed an increase in anxiety, another 1.5% said that they neither agreed nor disagreed that they experienced an increase in anxiety and 97% agreed that the experienced as increase in burnout. Finally, 3.2% of the respondents they did not experienced addiction during the pandemic, 17.2% believed that they neither agreed not disagreed that they had an addiction problem and 79.6% agreed that they had an addiction problem.

**Table 4.5: Effect of COVID-19 on employees**

No	Statement	DA	N	A
E1	Job loss	3.2	2.0	94.8
E2	Loss of income	3.8	0.3	93.2
E3	Unemployment	4.1	4.4	91.5
E4	Lay off	3.8	4.9	91.3
F5	Increase in stress	2.6	1.7	95.7
E6	Increase in burnout	2.9	1.7	95.4
E7	Increase in depression	4.9	1.5	93.8
E8	Increase in anxiety	1.5	1.5	97.0
E9	Addiction	3.2	17.2	79.6

#### **4.3.4 Factors impacting SMEs in Curbing the COVID-19 Pandemic**

In order to make the analysis very simple and avoid repetition, the strongly disagree and disagree results were combined as disagree. In contrast, the strongly agree and agree results were merged as agree. Therefore, the analysis was done using 3-point Likert scale, where: Disagree = 3, Neither agree nor Disagree = 2 and Agree = 1. Chakrabartty (2020) suggests that combining scores of Likert items is permitted for clear theoretical benefits and calculation easiness.

In Table 5.9, 3.2% of the respondents disagreed that there was a loss of human capital, 3.8% said that they neither agreed nor disagreed that there was a loss of human capital, and 97% agreed that

there was a loss of human capital. Furthermore, 2.3% disagreed that there was limited access to finance, 6.4% indicated that they neither agreed nor disagreed with limited access to finance, whereas 91.3% agreed that there was limited access to finance. Also, 2.9% of the respondents disagreed that there was inadequate government support, 4.1% said that they neither agreed nor disagreed that there was inadequate government support and 97% agreed that there was inadequate government support. Moreover, 4.7% disagreed that there were restrictive government regulations, 3.5% indicated that they neither agreed nor disagreed that there were restrictive government regulations, whereas 91.8% agreed that there were restrictive government regulations. In addition, 1.5% of the respondents disagreed that there was an increase in costs, 3.5% believed that they neither agreed nor disagreed that there was an increase in costs and 95% agreed that there was an increase in costs.

**Table 4.6: Factors influencing the impact of COVID-19**

No	Statement	DA	N	A
F1	Loss of human capital	3.2	3.8	97.0
F2	Limited access to finance	2.3	6.4	91.3
F3	Inadequate government support	2.9	4.1	97.0
F4	Restrictive government regulations	4.7	3.5	91.8
F5	Increase in costs	1.5	3.5	95.0

#### **4.3.5 Strategies to mitigate the impact of COVID-19 pandemic**

To make the analysis very simple and avoid repetition, the strongly disagree and disagree results were combined as disagree. In contrast, the strongly agree and agree results were merged as agree. Therefore, the analysis was done using 3-point Likert scale, where: Disagree = 3, Neither agree nor Disagree = 2 and Agree = 1. This decision is consistent with Chakrabartty (2020), who argues that combining scores of Likert items is permitted for clear theoretical benefits and calculation easiness.

It was found that 1.7% disagreed that the COVID-19 pandemic could be mitigated by encouraging flexible organisation, 8.7% said that they neither agreed nor disagreed that the effect of the COVID-19 pandemic could be mitigated by encouraging flexible organisation, whereas 89.6% agreed that COVID-19 pandemic could be mitigated by encouraging flexible organisation. In addition, it was found that 5.2% disagreed that the pandemic could be mitigated through teleworking, 7.8% indicated that they neither agreed nor disagreed that the pandemic could be mitigated through teleworking and 87% agreed that the pandemic could be mitigated through teleworking. Also, the results revealed that 1.8% disagreed that teamwork could help mitigate the impact of COVID-19, 8.1% believed that they neither agreed nor disagreed that teamwork would help reduce the impact of COVID-19, whereas 90.1% agreed that teamwork could help mitigate the impact of COVID-19.

Moreover, 3.2% disagreed that COVID-19 could be reduced by encouraging knowledge sharing among employees, 3.5% indicated that they neither agreed nor disagreed that the impact of COVID-19 could be mitigated by encouraging knowledge sharing among employees and 93.3% agreed that the impact of the COVID-19 could be reduced through knowledge sharing among

employees. It was discovered that 2.3% disagreed that the impact of COVID-19 could be reduced by adopting flexible work arrangements, 3.8% expressed that they neither agreed nor disagreed that the adoption of flexible work arrangements could help mitigate the impact of COVID-19 and 93.9% agreed that the COVID-19 pandemic could be reduced by adopting flexible work arrangements. Besides, 6.1% disagreed that remote working could assist in mitigating the pandemic, 8.7% indicated that they neither agreed nor disagreed that the impact of the pandemic could be curbed by adopting remote working and 85.2% agreed that the adoption of remote working would help reduce the effect of the COVID-19.

It was found that 6.1% of the respondents disagreed that the impact of the pandemic could be mitigated by rewarding creative talent, 3.5% believed that they neither agreed nor disagreed that the effect of the pandemic could be curbed by rewarding creative talent, whereas 90.4% agreed that rewarding creative talent could help mitigate the pandemic. The findings 0.6% disagreed that COVID-19 pandemic could be mitigated through managerial and leadership skills, 9.9% said that they neither agreed nor disagreed that the pandemic could be mitigated through managerial and leadership skills and 89.5% agreed that it could be mitigated through managerial and leadership skills. Finally, 3.8% of the respondents disagreed that an opportunity for employee training and development would help mitigate the impact of COVID-19, 4.9% expressed that they neither agreed nor disagreed that an opportunity for employees training and development could help address the impact of the pandemic and 91.3% agreed that an opportunity for employees training and development could help COVID-19 impact on employees and SMEs.

**Table 4.7: Strategies to mitigate the impact of COVID-19 pandemic**

No	Statement	DA	N	A
S1	Encourage flexible organisation	1.7	8.7	89.6
S2	Introduction of teleworking	5.2	7.8	87.0
S3	Encourage teamwork	1.8	8.1	90.1
S4	Adoption of new technologies	3.7	3.8	92.5
S5	Encourage knowledge sharing among employees	3.2	3.5	93.3
S6	Adopt flexible work arrangements	2.3	3.8	93.9
S7	Adoption of remote working	6.1	8.7	85.2
S8	Reward creative talent	6.1	3.5	90.4
S9	Employment of highly skilled employees	2.9	11.6	14.5
S10	Managerial and leadership skills	0.6	9.9	89.5
S11	Opportunity for employee training and development	3.8	4.9	91.3

#### 4.4 Inferential Statistics

In this study, inferential statistics such as reliability, validity, correlations and linear regression were computed to draw valid conclusions of the findings. Reliability and validity are the common

criteria for measuring data quality in quantitative research (Sürücü & Maslakçi 2020). Mukaka (2012) states that correlation assesses the linear relationship between two continuous variables. On the other hand, regression determines the association between multiple variables (Ali & Younas, 2021). The liner regression analysis was used to determine the relationship between the dependent and independent variables. The findings of the inferential statistics are discussed as follows.

#### 4.4.1 Validity of the measuring instrument

Validity assesses how accurately the measuring instrument evaluates what it is intended to assess. According to Sürücü and Maslakçi (2020), validity determines whether the measuring instrument assesses the behaviour it is supposed to assess. As indicated in the previous chapter, the validity of the questionnaire as assessed by computing KMO. The results KMO and EFA are shown in Tables 4.8.

**Table 4.8: Kaiser-Meyer-Olkin and Bartlett's Test**

KMO Measure of Sampling Adequacy.		0.904
Bartlett's Test of Sphericity	Approx. Chi-Square	12043.678
	Df	903
	Sig.	.000

In Table 4.8, the measure of sample adequacy was 0.904 (marvelous). Therefore, the sampling adequacy met the requirement of the factor analysis. The findings implied that the sample size used was adequate for the factor analysis.



#### 4.4.2 Reliability of the measuring instrument: Cronbach's alpha

The psychometric properties of the measuring instrument were statistically evaluated to determine their reliability before the results are presented and conclusions are drawn. Ahmed and Ishtiaq (2021) state that reliability concerns the extent to which the measuring instrument controls random error. In Table 4.9, the findings showed that the reliability scores range from 0.86 (for factors influencing the impact of COVID-19) to 0.92 (for effect of COVID-19 on employees). Evidently, the variables or constructs that form the basis of this study had reliability scores that are more than the threshold ( $\alpha = 0.70$ ). The findings implied that the questionnaire adopted in this study was reliable, hence accepted.

**Table 4.9: Reliability of the measuring instrument: Cronbach's alpha**

<b>Variables</b>	<b>No of Items</b>	<b>Cronbach's alpha (<math>\alpha</math>)</b>
Effect of COVID-19 on SMEs financial performance	11	0.88
Impact of COVID-19 on SMEs productivity	7	0.90
Effect of COVID-19 on employees	9	0.92
Factors influencing the impact of COVID-19	5	0.86
Strategies to mitigate the effects of COVID-19	11	0.89

#### 4.4.3 Pearson's product-moment correlation

Pearson's correlation was performed to assess the intercorrelation between the dependent and independent variables. Thus, Pearson's correlation coefficient was computed to determine the effects of the COVID-19 pandemic on SMEs' productivity, financial performance, employees,

factors influencing the fight against COVID-19 and strategies to mitigate COVID-19. According to Schober, Boer and Schwarte (2018), Pearson's correlation coefficient scores range from  $-1$  to  $+1$ , where  $0$  indicates no linear correlation, and the intercorrelation becomes stronger and ultimately approaches a straight line as the coefficient reaches an absolute value of  $1$ .

The findings showed a strong positive relationship between COVID-19 and the financial performance of SMEs ( $r = 0.935, p < .001$ ). The findings implied that the COVID-19 pandemic significantly affected financial performance of SMEs in the construction and engineering industries. Besides, a strong positive relationship existed between COVID-19 and SMEs' productivity ( $r = 0.771, p < .001$ ). In addition, there was a strong positive relationship between COVID-19 and employees in SMEs ( $r = 0.701, p < .001$ ). Furthermore, a strong positive relationship existed between the COVID-19 pandemic and factors influencing the impact of COVID-19 ( $r = 0.654, p < .001$ ). Lastly, there was a moderate positive association between COVID-19 and strategies to mitigate COVID-19 ( $r = 0.511, p < .001$ ).

**Table 4.10: Pearson’s product-moment correlations**

		COVID-19	Financial performance	Productivity	Employees	Factors	Strategies
COVID-19	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	344					
Financial performance	Pearson Correlation	.935**	1				
	Sig. (2-tailed)	<.001					
	N	344					
Productivity	Pearson Correlation	.890**	.771**	1			
	Sig. (2-tailed)	<.001	<.001				
	N	344	344	344			
Employees	Pearson Correlation	.899**	.747**	.701**	1		
	Sig. (2-tailed)	<.001	<.001	<.001			
	N	344	344	344			
Factors	Pearson Correlation	.721**	.624**	.706**	.654**	1	
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		
	N	344	344	344	344		
Strategies	Pearson Correlation	.533**	.459**	.520**	.489**	.511**	1
	Sig. (2-tailed)	<.001	<.001	<.001	<.001	<.001	
	N	344	344	344	344	344	344
**, Correlation is significant at the 0.01 level (2-tailed).							

The subsequent section describes the results of the regression analysis.

#### **4.4.4 Regression analysis**

Linear regression was computed to predict and estimate the relationships between COVID-19 and SMEs' productivity, financial performance, effects of COVID-19 on employees, factors influencing COVID-19 and strategies to mitigate COVID-19. Table 4.11 displays the relationship between the dependent and independent variables. The R-squared value was 0.763 and an adjusted R-squared value was 0.751. The results implied that the model (COVID-19) predicts 76.3% of the variations in the financial implications of COVID-19, productivity, employees, factors influencing COVID-19 and strategies to curb COVID-19. The study suggested that COVID-19 positively impacted SMEs and employees ( $p < 0.01$ ). The standardised Beta and the corresponding P values for the effect of COVID-19 on SMEs' financial performance ( $\beta = 0.427, p < 0.001$ ), the impact of COVID-19 on productivity ( $\beta = 0.304, p < 0.001$ ), the impact of COVID-19 on employees ( $\beta = 0.367, p < 0.001$ ), factors influencing the impact of COVID-19 ( $\beta = 0.418, p < 0.001$ ), and strategies to curb the impact of COVID-19 ( $\beta = 0.385, p < 0.001$ ), respectively. The results suggested that the variables measured in the study jointly made a considerable contribution to the model. Thus, the results implied COVID-19 had a significant impact on SMEs' financial performance, productivity, employees, factors influencing COVID-19 and strategies to curb the effect of COVID-19.

**Table 4.11: Linear regression analysis**

Mediating variables	R	R-squared value	Adjusted R-squared value	F	Beta	t-test	p-value
	0.871 <sup>a</sup>	0.763	0.751	-	-	55.387	0.000 <sup>b</sup>
Financial performance					0.427	8.840	0.000
Productivity					0.304	7.33	0.000
Employees					0.367	7.86	0.000
Factors					0.418	10.16	0.000
Strategies					0.385	7.93	0.000
Constant						9.832	0.000

#### 4.5 Chapter Summary

The chapter presented the key findings obtained from the respondents in the participating organisations. The findings revealed positive association between COVID-19 and SMEs' financial performance and productivity. In addition, there was a significant association between COVID-19 and employees in SMEs. This suggests that COVID-19 significantly impacted the employees within the SME sector. Furthermore, a strong positive link existed between COVID-19 and factors influencing the impact of COVID-19. Lastly, there was a moderate association between COVID-19 and strategies to curb the COVID-19 pandemic.

## CHAPTER FIVE: QUALITATIVE FINDINGS

### 5.1 Introduction

This involves the presentation of the qualitative findings. The data was collected from 11 participants through telephonic and face-to-face interviews. The participants included employees at managerial positions and SME owners. With the consent of the participants, the interviews were audiotaped. The interviews were transcribed and themes formulated. The thematic analysis was adopted to identify the themes and patterns that emerged from the study. The presentation of the findings is guided by the stated research objectives.

### 5.2 Participants Information

Table 5.1 describes the profile of the participants involved in the qualitative study.

**Table 5.1: Participants information**

<b>Variables</b>	<b>Biographic Info.</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Gender	Male	8	72.7
	Female	3	27.3
Age	36-40	2	18.2
	41-45	4	36.3
	46-50	3	27.3
	51-60	2	18.2
Race	African	6	54.5
	Indian	3	37.3
	Coloured	1	9.1

	White	1	9.1
Education	Bachelor's Degree	4	36.3
	Honours/BTech	3	27.4
	Masters	4	36.3
Category of organisation	Micro	3	27.3
	Small	5	45.4
	Medium	3	37.3
Years of experience	6-10 years	2	18.2
	11-15 years	5	45.4
	16-20 years	3	36.3
	> 21 years	1	9.1
Positions	Employee	2	18.2
	Manager	2	18.2
	Director	3	27.3
	Deputy CEO	2	18.2
	CEO	2	18.2

**Source: Field Data (2022)**

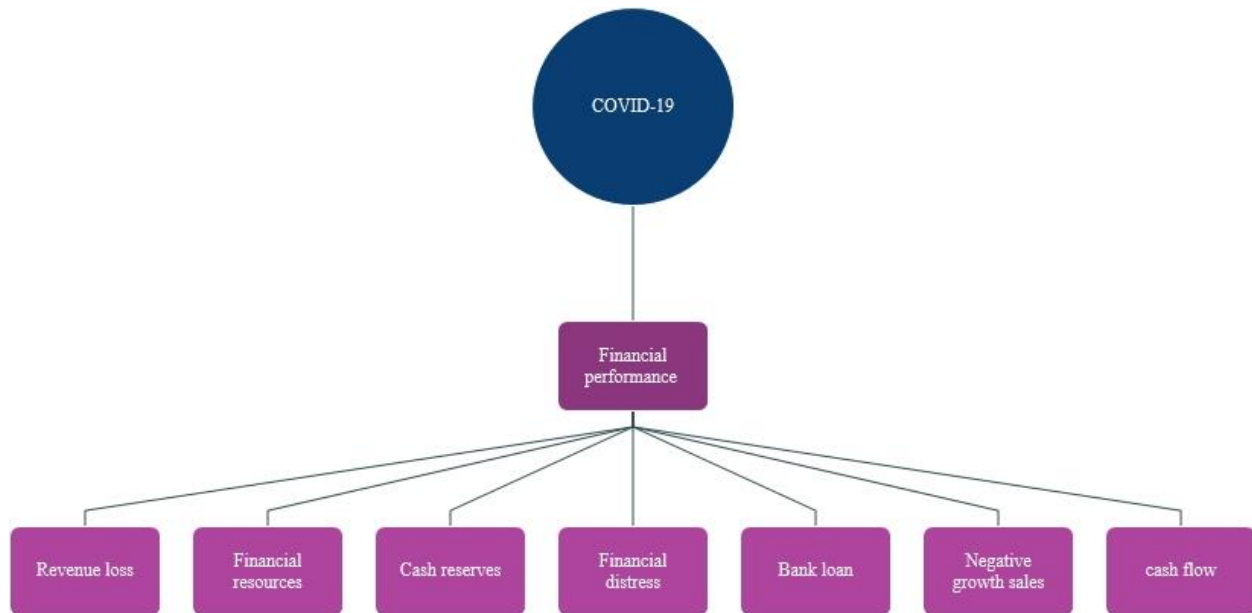
The information from Table 5.1 showed that males were 72.7% of the participants, whereas females constituted only 27.3%. Also, 18.2% of the respondents had 36-40 years and 51-60 years, respectively, 36.3% had 41-45 years, whereas 27.3% had 46-50 years. Concerning races, 54.5% of the respondents were Africans, 37.3% were Indians, whereas 9.1% were Coloureds and Whites, respectively. Furthermore, 36.3% of the participants hold Bachelor's Degree and Master,

respectively, whereas 27.4% hold Honours/BTech. In addition, 27.3% of the respondents were from micro-enterprises, 45.4% were from small enterprises and 37.3% were from medium enterprises. Furthermore, 18.2% of the respondents had 6-10 years of working experience, 45.4% had 11-15 years of working experience, 36.3% had 16-20 years of working experience and 9.1% had over 20 years of working experience. Finally, 18.2% of the participants interviewed were employees, Managers, Deputy CEOs, and CEOs, respectively and 27.3% were Directors.

### **5.3 Objective 1: The effect of COVID-19 on financial performance**

Objective 1 assessed how COVID-19 impacted the financial performance of construction companies within the SME sector. It was discovered that COVID-19 had negative implications on SMEs financial performance in the construction industry. All the participants (N = 11) agreed that the pandemic negatively affected construction SMEs financial performance, especially during the lockdowns. They expressed that the pandemic and subsequent lockdowns resulted in revenue loss, limited spare financial resources, lack of cash reserves, financial distress, limited access to bank loan/credit, negative growth sales, loss of sales and reduction in cash flow. Figure 5.1 shows these themes that emerged from the data analysis.





**Figure 5.1: Effect of COVID-19 on financial performance**

### 5.3.1 Theme 1: Revenue loss

The findings revealed that the pandemic has triggered a substantial short-term economic contraction and shuttered many firms, especially construction SMEs. The analysis of the data suggested that 8 participants from the construction SMEs expressed that their organisations experienced revenue loss during the pandemic because of the lockdowns and restrictive measures imposed by the government. They further argued that they experienced revenue loss due to the COVID-19 pandemic had affected their businesses, resulting in revenue loss and profit margins.

These quotes support reaffirm the findings:

Participant 2 said:

*“Yes, it does affect our revenue base. At the beginning of the pandemic, those of us in the construction sector suffered from revenue generation due to the lockdown restrictions. We could not afford to meet our revenue targets, especially for 2020, because of the low demand for construction activities such as buildings and roads. The situation was terrible*

*because we could not meet some financial commitments, like paying salaries and operational costs”.*

Participant 3 expressed:

*“The pandemic was devastating because most SMEs in the construction industry have experienced revenue loss due to the lockdown restrictions. You know that this country went into hard lockdowns at the early stage of the pandemic, and all construction projects were stalled. The lockdown had unavoidable consequences for businesses, especially SMEs, leading to revenue loss”.*

### **5.3.2 Theme 2: Limited spare financial resources**

It is a known fact that the pandemic negatively impacted the financial performance of many businesses, especially SMEs. This study confirms that the pandemic worsens construction SMEs' financial status due to limited spare financial resources. The findings showed that many construction SMEs in KwaZulu-Natal had little financial resources toward the beginning of the pandemic. Most participants (N = 9) suggested that some construction SMEs had closed temporarily because of limited financial resources. The participants expressed that their organisations lacked the financial resources to stay afloat or continue their operations. These are the quotes that support the findings:

Participant 5 indicated:

*“You know what, construction SMEs felt the impact of the pandemic the more. Our financial situation had worsened due to the limited financial resources. We could not even raise money to pay our workers and business expenses. The worst part of the situation is that our targets were not met, particularly during the lockdowns”.*

Participant 8 expressed:

*“Of course, the pandemic brought about untold hardship to construction companies. Most of our businesses collapsed because of the unavailability of financial resources to continue daily operations. The situation was worse during the restrictive lockdowns. Do you know I could not afford to pay my employees during the lockdowns! We do not have the money, so how can we pay them? That is how bad the situation was”.*

### **5.3.3 Theme 3: Cash reserve**

There is no doubt that the pandemic has added to the financial challenges facing SMEs worldwide. This study also confirmed that the pandemic had disrupted the financial performance of construction SMEs, leading to a decrease in their cash reserve. The participants (N =7) have indicated that their organisations witnessed a drastic decline in their cash reserves due to the lockdowns and low productivity.

Participant 1 indicated:

*“My business financial performance was worse because of no cash reserve. The business used to have a cash reserve to take care of contingencies, but this pandemic has hit us hard. As I speak with you, our reserve account is empty. This is how bad the situation is in this organisation”.*

Participant 3 believed:

*“The pandemic is worse than an enemy because of the financial implications. The situation has led to a loss of the firm’s cash reserve. We spent the cash reserve on salaries and other operational expenses during the hard lockdowns. The reserve is now empty, which is affecting the business”.*

#### **5.3.4 Theme 4: Financial distress**

COVID-19 has caused a major economic shock, affecting many businesses, including SMEs. Evidence shows that the pandemic has caused massive dislocation among small businesses, including those in the construction industry. The findings from this current study established that the pandemic has brought about financial distress to construction SMEs, impacting their financial performance. About 8 participants indicated that their businesses were in severe financial distress. The participants argued that their companies failed to meet financial commitments during the pandemic. They pointed out that the restrictive regulations during the lockdowns posed a significant challenge to their businesses. These quotes validate the research findings:

Participant 2 indicated:

*“Yes, we are in financial distress. The pandemic has been a nightmare for some of us. We are in financial distress as I speak with you. This has worsened our financial performance since last 2020”.*

Participant 5 said:

*“The COVID-19 pandemic has put all of us in a difficult financial situation. Financially, our businesses are not doing well because of some of the regulations imposed by the government in an attempt to address this health crisis. Today, we still feel the devastating impact of COVID-19 on the financial performance of businesses across different industries”.*

#### **5.3.5 Theme 5: Access to bank loan/credit**

Worldwide, SMEs act as an engine of growth and economic development because they create jobs, reduce poverty and inequality. However, one of the challenges facing them is access to credit or loans from financial institutions. It was discovered that the financial performance of construction

SMEs had been impacted negatively because of limited access to credit facilities during the COVID-19 pandemic. All the participants (N = 11) expressed that their organisations had difficulty accessing credit or loans from financial institutions during the pandemic. They argued that although the government required financial institutions to give soft loans to struggling firms, they could not access the loans. The participants claimed that the conditions for the loan were very stringent, which disqualified them from accessing it.

Participant 6 believed:

*“We could not access credit or loans because the conditions were not favourable. Our business struggled to survive this pandemic. We applied for a loan three times, but the banks declined to grant us such a loan. We have to plan with what we have at hand”.*

Participant 9 said:

*“Access to a loan was one of the financial challenges this company faced during the pandemic. Most financial institutions or banks were unwilling to lend money to struggling firms like ours. The inability to access a credit facility had negatively impacted this firm's financial performance”.*

### **5.3.6 Theme 6: Growth sales**

COVID-19 has created immediate and significant challenges for many SMEs globally. Previous findings showed that many businesses, including SMEs, experienced negative growth sales during the pandemic. This current study also confirmed that the pandemic resulted in negative or sale growth of many SMEs in South Africa. Most participants (N = 9) pointed out their organisations had experienced negative growth sales due to restrictive government measures during lockdowns. They argued that their organisations could not meet sales targets, especially in 2022. The quotes below give credence to the findings:

Participant 9 indicated:

*“Our organisation experienced many challenges during the pandemic, and one such challenge was low financial performance due to negative growth sales. We could not even meet 50% of the sales targets in 2020. This situation has affected the financial performance of the firm negatively”.*

Participant 11 expressed:

*“The truth is that we experienced negative growth in sales during the pandemic. We could not make enough sales between 2020-2021 because of the severity of the pandemic on businesses. The reality is that we are not alone in this situation. The impact is being felt in all industries”.*

### **5.3.7 Theme 7: Limited cash flow**

The study found that COVID-19 pandemic has resulted in limited cash flow for SMEs, thereby impacting their financial performance. From the interviews, all the participants (N = 11) confirmed that they had limited cash flow during the pandemic. The participants argued that the little cash flow resulted from the government's lockdown restrictions. Here are the quotes that support the study:

Participant 1 believed:

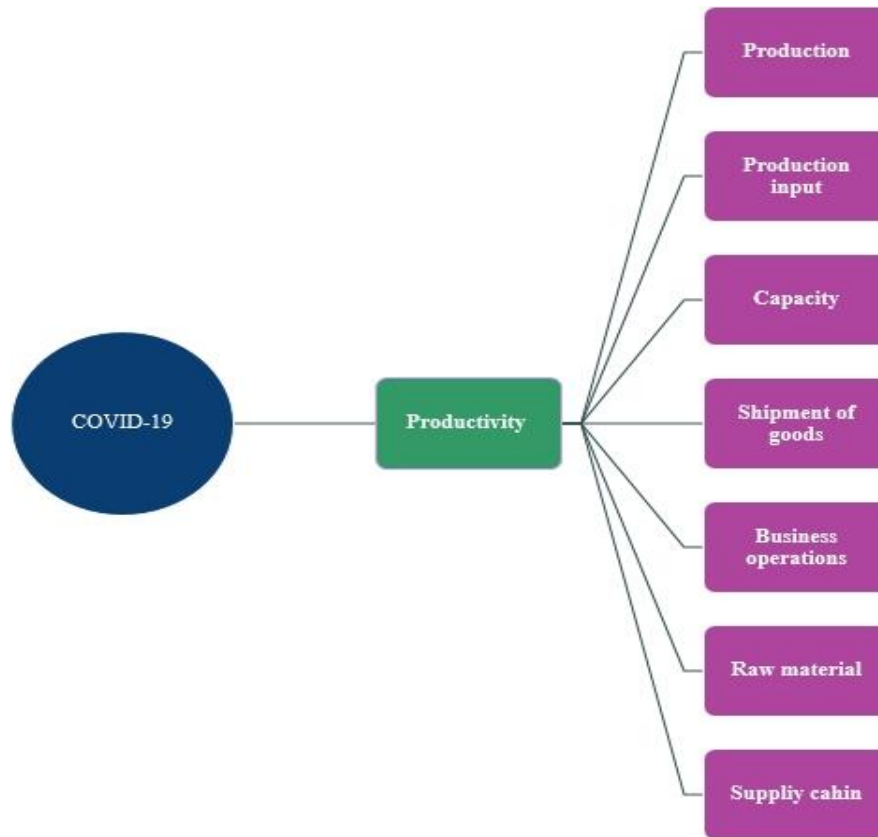
*“I want to say that the pandemic severely impacted our business performance. We could not generate enough cash during the pandemic, which worsened the firm's financial position. Even today, we struggle to pay our workers because of limited cash flow during the pandemic”.*

Participant 3 said:

*“To the best of my knowledge, the pandemic has created more havoc for our businesses because we cannot generate enough cash flow. Financially, this company is not doing well because of the limited cash flow resulting from the pandemic”.*

#### **5.4 Objective 2: The effect of the COVID-19 pandemic on the productivity**

Objective 2 examined the impacted that COVID-19 had construction SMEs’ productivity. Using the thematic analysis, it was found that the pandemic negatively impacted the productivity of construction SMEs as a result of disruption of the global supply chain, reduction in production, decrease in production inputs, decrease in capacity use, restriction in the shipment of goods, decrease in business operations and unavailability of raw materials. Figure 5.2 shows the findings.



**Figure 5.2: Impact of the COVID-19 pandemic on the productivity**

#### **5.4.1 Theme 1: Supply chain**

It has been found that many small businesses around the world have been abruptly confronted with different challenges, including a decline in productivity owing to the disruption of the supply chain. All the participants (N = 11) agreed that construction SMEs experienced a decrease in productivity because of the global interruption of the supply chain. They expressed their organisations could not produce products because of the global supply shock. The participants claim that in many cases, lockdowns and other movement restrictions have prevented the movement of goods and people, resulting in low productivity.



Participant 1 indicated:

*“Yes, the pandemic impacted productivity of construction SMEs negatively because of the restrictions on the supply of raw materials from China to South Africa and other parts of the world. The global supply shock had a devastating impact on not only small businesses but large ones. Our productivity dropped sharply during the pandemic”.*

Participant 2 expressed:

*“During the pandemic, many businesses, including construction SMEs in supply chains have ceased operating. The situation has led to a decline in productivity in most firms, including SMEs. Our business was the hardest hit because of the inability to produce goods and services required by clients”.*

#### **5.4.2 Theme 2: Reduction in production**

The majority (N = 7) claimed that construction SMEs witnessed a drastic decrease in production because of a lack of raw materials due to lockdown measures imposed by many governments. The following quotes relate to the findings:

Participant 3 stated:

*“Yes, the pandemic has affected the productive capacity of this organisations. We were unable to produce because of the restriction on raw materials from China to South Africa”.*

Participant 4 indicated:

*“The pandemic has caused economic havoc to many businesses, leading to a decline in production and productivity. The truth is that we experienced negative growth in productivity during the first year of the pandemic. The decline in productivity resulted from the disruption of the supply chain”.*

### **5.4.3 Theme 3: Production inputs**

It is a known fact that major industries such as construction, engineering, and others have experienced a decline in the number of business activities, including productivity, due to limited production inputs. Most (N = 6) shared a similar view that construction SMEs experienced a decline in productivity because of the disruption that marred the supply chain globally.

Participant 3 said:

*“I think one of the factors that accounted for a decline in productivity was the delay in the supply of production inputs. As you know, the pandemic has halted the supply of major production inputs like raw materials across different parts of the world. South Africa also had its fair share of the pandemic because we could no longer get the supply of production inputs from our foreign partners”.*

Participant 5 expressed:

*“As you already know, the pandemic brought about shortages of production inputs not only in South Africa but globally. This shortage has created challenges for many firms, resulting in a decline in productivity. We could not produce because of a lack of production inputs from our suppliers”.*

### **5.4.4 Theme 4: Capacity use**

Research shows that the pandemic has resulted in a decrease in capacity use in most businesses. The findings from this study also confirmed pandemic created a decline in the capacity use of construction SMEs. Most participants (N = 7) shared similar sentiment that the pandemic affected capacity use, leading to decreased productivity of construction firms. They argued that the low

capacity use could be attributed to the shortages of raw materials. The quotes below validate the research findings:

Participant 7 indicated:

*“What I can say is that COVID-19 is not a respecter of a person and business. The reason for this is that it made people redundant. The pandemic has affected the productivity capacity of many businesses, including small and large ones. The capacity used in most organisation decline because of the lack of raw materials and other production inputs”.*

Participant 8 believed:

*“We experienced several challenges during the pandemic, especially during lockdowns. Our business struggled to survive because of low production capacity. The low productivity capacity arose because of the restrictive measures. We could not meet our daily production targets because of the unavailability of production inputs”.*

#### **5.4.5 Theme 5: Shipment of goods**

To limit the spread of the COVID-19 pandemic, most governments, including South Africa, banned the shipment and import of goods and services from other countries. From the interviews, a few (N = 5) participants confirmed that the pandemic had led to a decline in the shipment of goods, resulting in a decrease in productivity within construction SMEs. They expressed that the South African government restricted the supply of goods from its major trading partners across the globe, including China. The quotes below give credence to the findings:

Participant 1 expressed:

*“Yes, there was a ban on the shipment of goods and services. During the early stage of the pandemic, no shipment was allowed from China. The measure created a lot of challenges for SMEs, leading to low productivity”.*

Participant 4 said:

*“Due to the restriction on the shipment of goods from foreign suppliers, many firms, including ours, struggled to meet their production targets. The government wanted to halt the spread of the disease; hence there was a need to ban the importation of goods and services.”*

#### **5.4.6 Theme 6: Business operations**

It was found that the COVID-19 pandemic caused a decline business operation among construction and engineering firms. The participants (N = 6) believed that the pandemic negatively impacted their business operations, affecting productivity. They opined that business operations were disrupted due to the government’s unfavourble policies. The quotes below support the findings:

Participant 3 said:

*“Our business operations have been halted because of the COVID-19 pandemic and its accompanying measures imposed by governments. We went into lockdowns severally. During these periods, business operations were severely impacted, resulting in low productivity”.*

Participant 5 expressed:

*“Yes, the pandemic has affected our business operations. We were unable to produce because of the government's preventive measures. There is no material for production. Most businesses, too, have collapsed”.*

#### **5.4.7 Theme 7: Raw materials**

The findings indicated that the COVID-19 pandemic wiped out more firms, especially small ones, due to the unavailability of the supply of raw materials required for production. Most participants (N = 9) indicated that their businesses experienced a shortage of raw materials during the pandemic due to governments preventive measures. Below are the quotes that support the study:

Participant 4 believed:

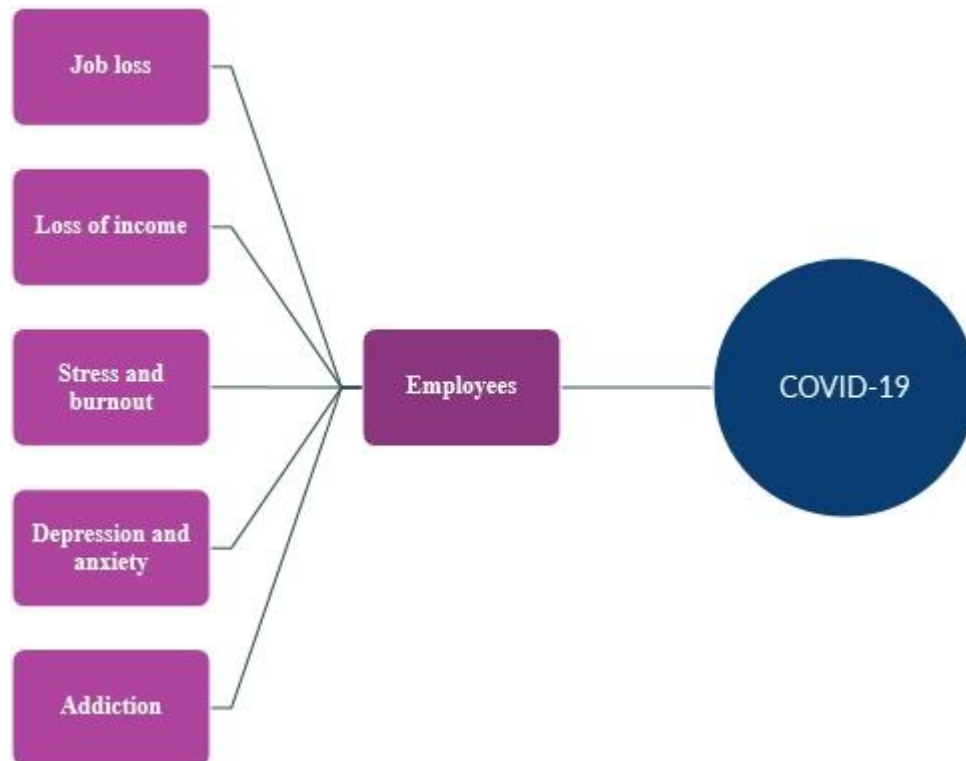
*“You know what, our business struggled during the lockdowns because of the unavailability of the supply of raw materials from the supplier base. Government regulations have crippled my businesses because they do not have access to the raw materials to produce. The unavailability of materials affected most companies from meeting their production targets”.*

Participant 11 indicated:

*“I am a living testimony to this pandemic. A few years were very devastating for all of us. We, the small business owners, were the hardest hit. We could not even have access to raw materials for production. You know that the government banned imports of raw materials such as iron rods, cement, and other production inputs from China, the major supplier. The situation has created a shortage of raw materials required for construction and engineering work”.*

## 5.5 Objective 3: Effect of COVID-19 on employees

Objective 3 examined the consequences of the pandemic on employees in the SME sector. The thematic analysis indicated that the pandemic had negative implications on employees in several ways, including job loss, loss of income, increased stress and burnout, increased depression and anxiety as well as drug and alcohol abuse. Figure 5.3 shows the research findings.



**Figure 5.3: Effect of COVID-19 on employees**

### 5.5.1 Theme 1: Job loss

Evidence shows that the pandemic has triggered one of the worst job crises after the Great Depression. The findings from this study showed that the pandemic had negatively impacted employees in construction and engineering companies, leading to job loss. All the participants (N = 11) shared the same opinion that the pandemic had resulted in job loss due to government preventive measures that accompanied lockdowns. They expressed that most employees were laid

off during the lockdowns since most firms were no longer in active business. The quotes are stated as follows:

Participant 6 expressed:

*“A few years have been very devastating for us, the employees. Some of us were fortunate to be employed to date because our colleagues have lost their jobs. The fact remains that the pandemic resulted in massive job loss.”*

Participant 7 indicated:

*“From what I saw, the situation was terrible for us managers too. We had to lay some employees off because of the impact of the pandemic on businesses. Cutting down the number of employees was the best thing to do because we could no longer afford to pay them”.*

### **5.5.2 Theme 2: Loss of income**

Findings showed that the pandemic resulted in job loss, leading to loss of income. Various studies have documented that the pandemic has resulted in income loss due to unemployment. The findings from this study also confirmed that the national lockdowns led to employee loss of income. All the participants (N = 11) have acknowledged that the pandemic has affected employees negatively, leading to income loss. The following quotes support the research findings:

Participant 4 said:

*“I can confirm that the pandemic also affected employees’ income. Most employees were laid off during the pandemic, resulting in income loss. Also, most people lose revenue because of the salary reduction. Most employers paid only 50% of the salary to the surviving employees”.*

Participant 9 believed:

*“From what I have seen in the last two years, the situation has been bad for most of us. We thank God that most of us have survived it. Most of us only received half of our salary because of the economic consequences of the pandemic. Some of our colleagues were asked to go home because the company could no longer afford to pay them”.*

### **5.5.3 Theme 3: Stress and burnout**

Before the outbreak of the pandemic, work stress and burnout are common phenomena in the workplace. It is believed that workplace stress adversely affects workers' mental health, with an increased risk of anxiety, burnout, depression, and substance use disorders. The findings revealed that workplace stress and burnout among employees have worsened during the pandemic. Most participants (N = 7) have concluded that the pandemic increased their stress, leading to burnout. The participants argued that they combined the works of their colleagues who were sick or dead due to the pandemic. They concluded that the pandemic had increased their workload, resulting in burnout. The following quotes relate to the study:

Participant 1 indicated:

*“My workload increased during the pandemic because my colleague with whom I shared an office had passed on. I was made to combine her work and mine. The situation has worsened my stress level. I could not cope with the situation at a certain point because the job demand kept increasing. My body gave up at a certain point due to the exercise workload”.*



Participant 10 expressed:

*“Yes, we all experienced stress and burnout during the pandemic. Imagine combining the workload of more than two other workers who died or were laid off. I struggled to cope with the job demand during the pandemic. We were five employees working on the same project in the same office. Unfortunately, two colleagues died and one resigned for health reasons. The remaining two of us were asked to perform the responsibilities of the other three colleagues. We were so stressed because the job demands were too much for the two of us”.*

#### **5.5.4 Theme 4: Depression and anxiety**

Evidence shows that the consequences of the pandemic, including unemployment, have created mental health issues for many employees, such as depression and anxiety. The findings from this study confirmed that the uncertainties, disruptions in daily routines, and loss of family and loved ones during the pandemic have increased depression and anxiety among employees in all organisations, including construction and engineering. A few participants (N = 5) expressed that they experienced depression and anxiety during the pandemic.

Participant 3 said:

*“The worse part of the pandemic is the associated consequences, such as depression and anxiety. I was depressed because I lost my closest friend during the pandemic. I could not come to terms with his sudden death. I was scared that I, too, would not survive the pandemic”.*

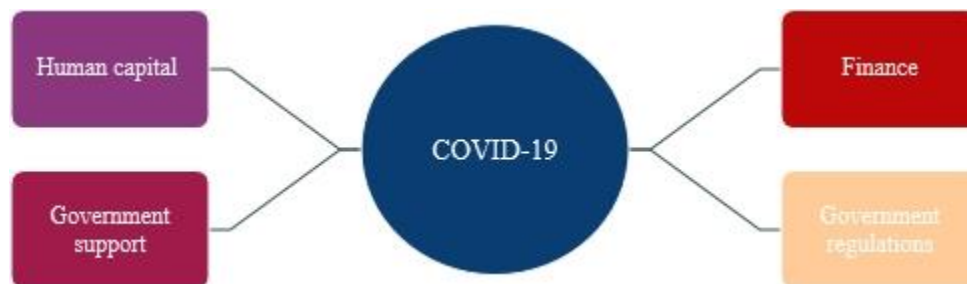
Participant 11 indicated:

*“The last three years have been devastating, particularly for my family and me. In 2020, I lost my mum due to the pandemic. The same year, a colleague in the office also passed on.*

*Psychologically I was not prepared to even come to work, but at the same time, I needed money to survive. I was so depressed to the point of giving up on my job. Also, I always feel nervous and restless each time I arrive at work because of the loss of a colleague”.*

## 5.6 Objective 4: Factors Influencing the Impact Of COVID-19

Objective 4 determined the factors influencing SMEs in mitigating COVID-19 pandemic. From the interviews, the study identified several factors that impacted SMEs ability to mitigate the COVID-19 pandemic, including loss of human capital, limited access to finance, inadequate government support, and restrictive government regulations. Figure 5.4 shows the themes which form the basis of the findings.



**Figure 5.4: Factors influencing the impact of COVID-19**

### 5.4.1 Theme 1: Human capital

Human capital is believed to create a strong competitive advantage for many organisations. Unfortunately, the findings suggested that most SMEs within the construction and engineering industries lacked the human capital to survive. Some participants (N = 4) argued their organisations do not have qualified employees to help mitigate the consequences of the pandemic. The findings

showed that although most firms have employees, specific skills like computing and accounting are still lacking in such organisations. The results indicated that the unavailability of people with these skills impedes the firms' efforts toward addressing the consequences of the pandemic. The findings are supported by the following quotes:

Participant 5 said:

*“For me, one of the challenges I have observed that affected this organisation in tackling the effects of the pandemic is the lack of people with special skills. I am not saying that the organisation does not have people. In certain positions like decision-making, we need people with managerial skills to make hard decisions. The truth is that things are not working because such people are non-existence. The efforts by the organisation to mitigate the impacts of the pandemic proved futile because we do not have the right people in strategic positions”.*

Participant 8 indicated:

*“You know what, to the best of my knowledge, a lack of skilled people also affects the organisation by limiting the effects of the pandemic on the organisation. The fact is that this organisation needs more people with the technical know-how to help turn things around. Unfortunately, the organisation does not have money to recruit such people”.*

### **5. 6.2 Theme 2: Access to finance**

The findings showed that access to finance is a big challenge that affects SMEs, especially during the pandemic. All the participants (N = 11) agreed that SMEs in the construction and engineering industries were denied access to finance by financial institutions. The participants expressed their organisations faced financial difficulties during the pandemic. The participant said the following:

Participant 1 indicated:

*“As you know, money is everything these days. Without money, one cannot survive. We are unable to deal with the consequences of the pandemic because of limited financial resources. This organisation was denied access to finance by financial institutions severally”.*

Participant 3 believed:

*“The fight against the pandemic proves futile because of a lack of financial resources. The cost associated with the pandemic is huge and due to limited access to finance, we are struggling to survive. The banks were not ready to grant us a credit facility because we did not meet certain conditions”.*

### **5.6.3 Theme 3: Government support**

SMEs worldwide are noted for their economic contribution. However, it has been argued that one of the challenges facing them is the lack of government support. The findings from this current study reaffirmed that SMEs in the construction and engineering industries have difficulty dealing with the pandemic because of the lack of government support. Most participants (N = 8) agreed that the stimulus packages offered by the government were insufficient in mitigating the consequences of the pandemic. They claimed that their organisations do not have the financial resources to address the havoc created by the pandemic. Here are the views expressed by the participants:

Participant 1 said:

*“The biggest challenge we have is the lack of government support. You know what, we have been through a lot in the last few years because of the economic challenges created*

*by the pandemic. In this tough time, the government supports are woefully inadequate. The lack of support from the government daunting the organisation's effort toward mitigate the impact".*

Participant 7 indicated:

*"I am worried about the government's inability to support our business to limit the consequences of the pandemic. The fact is that we do not have government support. I have heard that the government rolled up stimulus packages for SMEs, but we did not receive any. You see, our staff numbers have reduced because we do not have any support from the government".*

#### **5.6.4 Theme 4: Government regulations**

The findings from this study revealed that government regulations, especially during the pandemic, have worsened the challenges confronting construction SMEs. Most participants (N = 7) argued that the government's restrictive measures during the pandemic exacerbated the problems facing the construction firms. The participants indicated the following perceptions:

Participant 2 believed:

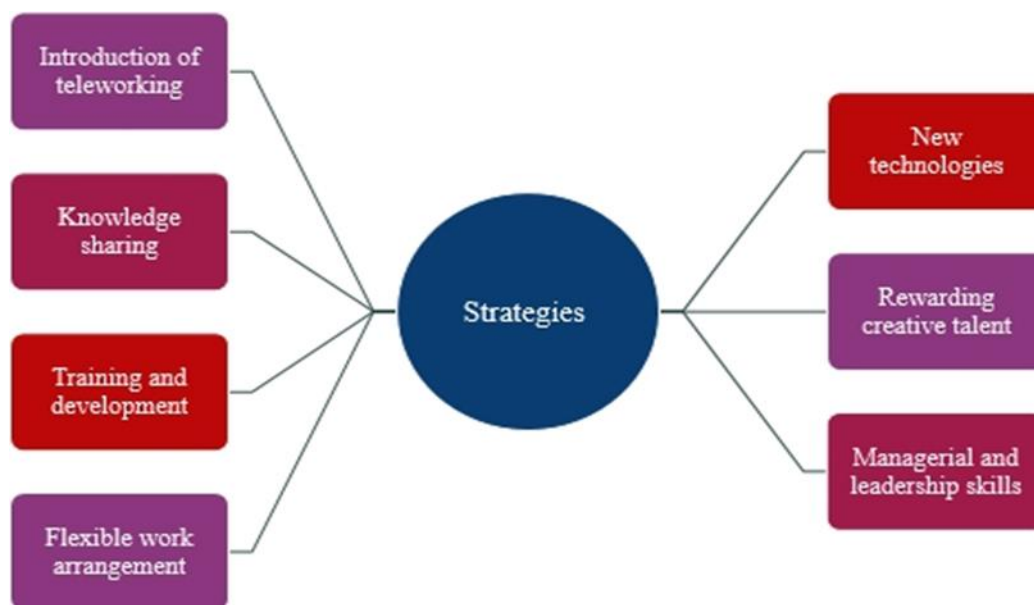
*"We cannot pretend that all is well. The business environment is not good because government measures exacerbate the challenges already facing us. Government regulations are more stringent and make it impossible for businesses to survive".*

Participant 11 indicated:

*"We have been through a lot since the start of the pandemic. All efforts to remedy the consequences of the pandemic proved futile because of the restrictions imposed by the government".*

## 5.7 Objective 5: Strategies to Address the Effects of the COVID-19 Pandemic

Objective 5 examined the strategies adopted by SMEs to mitigate the impact of the COVID-19 pandemic. From the interviews, it was found that several strategies could be adopted to remedy the consequences of the pandemic on SMEs, including the introduction of teleworking, adoption of new technologies, knowledge sharing, rewarding creative talent, an opportunity for training and development, and managerial and leadership skills. Figure 5.5 shows the findings.



**Figure 5.5: Strategies to mitigate the impact of COVID-19 pandemic**

### 5.6.1 Theme 1: Introduction of teleworking

During the pandemic, many organisations have adopted teleworking to ensure the continuity of their business operations. It was argued that the essence of teleworking is to provide the employees an opportunity to work from home. This study recommended that SMEs introduce teleworking to help reduce the spread of the virus and disruption of workflow. For instance, a few participants (N

= 4) shared a similar view that teleworking will be one of the strategies to help mitigate the consequences of the pandemic. The quotes that support the study are:

Participant 2 said:

*“I will suggest that teleworking should be introduced, especially for administrative work. Administrative work can be performed through teleworking without the employees mercenarily going to their offices. This will help limit the spread of the disease”.*

Participant 4 indicated:

*“Teleworking could also help in this situation. However, this can only work better with administrative work. You cannot ask people working on a building project to work from home. So, you see, teleworking can only apply to administrative jobs, but not construction works”.*

### **5.6.2 Theme 2: Knowledge sharing**

Knowledge sharing has become a common practice among employees, especially in learning organisations. The findings revealed that knowledge sharing could help communicate important information about the pandemic in organisations. The participants (N = 5) recommended that to help fight the pandemic, the organisation must encourage knowledge sharing among employees. They proposed that organisations should create space for knowledge sharing to occur. Furthermore, they expressed that organisation should make available knowledge-sharing tools. The following quotes support the findings.

Participant 5 said:

*“I think knowledge sharing will also help in this situation. You know what, there is much misconception about the pandemic. We do not have adequate information about the*

*pandemic at its early stage because of the handling of cases. People need to be informed about everything concerning the pandemic. Therefore, the organisation should encourage knowledge-sharing culture to help know much about the pandemic”.*

Participant 9 expressed:

*“In situations like this, knowledge sharing is also a viable tool to enable employees to perform their work. I am confident that people find better solutions to organisational problems when they share knowledge. Knowledge sharing could help people to improve their performance. I recommend that organisations create an environment that supports knowledge sharing”.*

### **5.6.3 Theme 3: Training and development**

Training and development is a vital human resource management strategy that equips people with the skills as well as knowledge required to perform better in the workplace. Most participants (N = 7) recommended that the employees in their organisations required training and development programs to enable them to acquire the skills, knowledge, and competencies needed to compete in the industry. The participants argued that training and development would help the employees respond quickly to the pandemic. The participants expressed the following views:

Participant 7 expressed:

*“Training and development is one strategy that can help organisations respond quickly to the effects of the pandemic. Through training and development, employees will acquire the skills, knowledge, and competencies to perform better on the job. The fact is that we have lost many talented people during the pandemic for reasons such as death, sickness, and resignations. Therefore, training and development will be the best option for the surviving*



*employees. These programmes should target employees who do not have adequate skills and whose performance is poor”.*

Participant 10 indicated:

*“I recommend that organisations train and develop people who lack the skills, knowledge, abilities and competencies required to deliver. An effective training and development programme may result in high employee job satisfaction, commitment, and retention, leading to high productivity. Therefore, I suggest we train and develop employees whose skills are not up to standard”.*

#### **5.6.4 Theme 4: Flexible work arrangements**

It is suggested that allowing employees to have better work balances enables them to become happier and more fulfilled in their personal lives and more committed. A few (N = 4) participants recommended that adopting a flexible work arrangement will lead to high employee motivation and commitment, resulting in higher performance. The participants further suggested that a flexible work arrangement would help reduce the work-related stress exacerbated by the pandemic. They further indicated that a flexible work arrangement would help reduce mental health issues experienced by employees during the pandemic. The participants expressed the following sentiments:

Participant 3 expressed:

*“A flexible work arrangement is also an option for the organisation to address the impact of the pandemic. When properly implemented, flexible working arrangements will help improve employee performance. It can also reduce risk on the jury due to work-related stress”.*

Participant 8 indicated:

*“I do not want to talk too much, but my recommendation will be that organisational implement flexible work arrangements to enable employees to determine their work start and finish times as well as work remotely”.*

### **5.6.5 Theme 5: New technologies**

The study found that new technologies impacted the performance of businesses, including SMEs. The participants (N =7) recommended that their organisations adopt new technologies to meet the new demands and respond to the pandemic quickly. The participants recognised that technological innovations are critical components of the business, not just a source of cost efficiencies. The participants expressed the following views:

Participant 2 opined:

*“I believe organisations, including ours, continue adopting new technologies to fight the pandemic. What I am driving at is that organisations continue to integrate new technologies into their businesses”.*

Participant 7 said:

*“Adopting new technologies will be a viable strategy for helping businesses survive during the pandemic. This is all I can say because it will assist organisations in finding new ways of doing business”.*

### **5.6.6 Theme 6: Reward creative talent**

It has been suggested that if high quality and originality are rewarded, people are more likely to come up with high-quality ideas to perform their tasks. Research shows that rewarding people with creative talent helps unblock old thinking patterns or habits. This study confirms that rewards or

financial incentives are the most powerful motivator of employee performance. The participants (N = 6) recommended that organisations reward people with creative talent. Here are the views expressed by the participants:

Participant 7 expressed:

*“Rewarding people with creative thinking and talent is the best to do, especially at this time. We all know that employees are the backbone of every organisation. This means that without employees, no activity can take place in an organisation. So, I will recommend that organisations, including this one, acknowledge and reward people who inject new ideas into the business. The organisation should offer financial and non-financial incentives such as pay increases, bonuses, promotion, praise and recognition to people with a creative mindset”.*

Participant 11 indicated:

*“My simple recommendation will be that organisation reward creative and innovative talent. They should provide financial incentives through bonuses, cash, shares and additional holiday to employees who are more creative and assist the businesses in diverse ways”.*

### **5.6.7 Theme 7: Managerial and leadership skills**

Managing people and business is inherently demanding and stressful. Given this, it has been found that managerial and leadership skills are among the most in-demand skills for success in organisations and managerial effectiveness. The study found more special consideration should be given to managers with managerial and leadership skills. Most participants (N = 7) argued that managerial and leadership are critical for organisations during the pandemic. They expressed that

organisations appoint the right managers with managerial and leadership skills to help them achieve their targets. The participants said the following:

Participant 3 said:

*“I think we need leaders with the managerial and leadership skills to run the organisation to achieve its goals. Appointing people with managerial and leadership skills will be more prudent for organisations to manage the effects of the pandemic. In a time like this, we need people who can effectively run the organisation. Therefore, I recommend that the right people with the skills be appointed to strategic positions in the organisation”.*

Participant 9 expressed:

*“As part of the strategies to help the organisation survive during and after the pandemic, I believe we need employees with the requisite managerial and leadership skills. An organisation without leaders and managers is like a family without a man. So, I would recommend that the organisation recruit managers with leadership and managerial skills. This pandemic requires people with certain skills in strategic positions. Therefore, having such people in strategic positions will help the organisation survive in critical situations like this”.*

## **5.7 Chapter Summary**

The study found that COVID-19 had negative implications on the financial performance of SMEs. It was established that the pandemic negatively affected organisations financial performance, especially during the lockdowns. The findings suggested that the pandemic and subsequent lockdowns resulted in revenue loss, limited spare financial resources, lack of cash reserves, financial distress, limited access to bank loan/credit, negative growth sales, loss of sales, and

reduction in cash flow. In addition, the pandemic negatively affected the productivity of SMEs as a result of disruption of the global supply chain, reduction in production, decrease in production inputs, decrease in capacity use, restriction in the shipment of goods, decrease in business operations and unavailability of raw materials. Besides, the finding indicated that the pandemic had negative implications on employees in several ways, including job and income loss, increased stress and burnout, increased depression and anxiety, and addiction. Furthermore, the study identified several factors that impacted SMEs ability to minimise the consequences of the pandemic, including loss of human capital, limited access to finance, inadequate government support, and restrictive government regulations. Moreover, they identified several strategies to help mitigate the consequences of the pandemic, including the introduction of teleworking, adoption of new technologies, knowledge sharing, rewarding creative talent, an opportunity for training and development, and managerial and leadership skills.

## CHAPTER SIX: DISCUSSION OF FINDINGS

### 6.1 Introduction

This chapter discussed the key findings obtained from quantitative and qualitative research. Consistent with the previous two chapters, the discussion is based on the research objectives: impact of COVID-19 pandemic on SMEs financial performance; impact of the COVID-19 pandemic on the productivity of SMEs; effects of the COVID-19 pandemic on employees; factors influencing the impact of the COVID-19 pandemic on SMEs and to determine strategies that can help prevent mitigate the pandemic.

### 6.2 Objective 2: Effect of the COVID-19 Pandemic on the Financial Performance

Objective 1 examined how the COVID-19 impacted SMEs financial performance within the construction. The findings from both studies established negative implications of COVID-19 on SMEs financial performance. For instance, based on the quantitative study, the Pearson's correlation revealed that COVID-19 and the financial performance of SMEs are significant ( $r = 0.935$ ,  $p < 0.01$ ). Moreover, the regression indicated a positive relationship between COVID-19 and SMEs financial performance ( $\beta = 0.427$ ,  $p < 0.001$ ).

On the other hands, the qualitative findings showed the negative consequences of pandemic on the financial performance of SMEs. From the interviews, all participants (N = 11) expressed that the COVID-19 had negative implications on their financial performance, especially during the lockdowns. They expressed that the pandemic and subsequent lockdowns resulted in revenue loss, limited spare financial resources, lack of cash reserves, financial distress, limited access to bank loan/credit, negative growth sales, loss of sales, and reduction in cash flow. The findings of this

study are consistent with previous studies. Research by Balla-Elliott *et al.* (2020) and Barrero *et al.* (2020) showed that although SMEs and large enterprises are impacted by this health crisis, its impacts are severe on SMEs. For instance, a study by OECD (2020) reveals that more than 50% of SMEs experienced revenue loss. According to Dua *et al.* (2020), a survey carried out by McKinsey indicated about 1.4-2.1 million small businesses are more likely to shut down their operations permanently due to the pandemic. Dua *et al.* (2020) further observed that the most vulnerable businesses are experiencing challenges such as liquidity and revenue shock.

McKinsey and Company (2020) reported that in the United Kingdom, about 80% of SMEs achieved stable revenue before the outbreak of the virus but experienced revenue decline since the start of the pandemic. Cowling *et al.* (2020) also discovered that approximately 120,000 UK SMEs are at risk of liquidity because of the inability to generate revenue. Cowling *et al.* (2020) added that due to the COVID-19 pandemic, many UK SMEs had limited access to financial resources, resulting in low savings.

Demirgüç-Kunt *et al.* (2020) alleged that access to credit facilities is a critical challenge confronting SMEs during the COVID-19 pandemic. Howell *et al.* (2020) suggested that sources of funding for SMEs fall dramatically during the pandemic. Brown *et al.* (2020) expressed a similar sentiment that COVID-19 affected the sources of finance of UK SMEs.

A survey by Sonobe *et al.* (2021) revealed that the most SMEs experienced decrease in sales revenues in the first half of 2020 than the previous years. It was found that most firms in Indonesia lost more than 40% of their sales (Sonobe *et al.* 2021). Zeegen *et al.* (2020) agreed that COVID-19 decreased income and increased the expenditure of businesses in the United States. Similarly, Carolina (2020) points out that the COVID-19 presents financial challenges to SMEs, including

bankruptcy and limited access to the stimulus package. Likewise, scholars such as Shafi et al. (2020) and Winarsih et al. (2020) also concurred that the reduction in SMEs revenue was due to reduction of production and low sales. In Australia, a study conducted by OECD (2020) reveals that 41% experienced a 50% drop in income during the pandemic. In the Netherlands, about 85% of SMEs are in financial distress because of the COVID-19 outbreak (OECD 2020). Wickramasinghe *et al.* (2020) share the same sentiment that the greater proportion of SMEs income dwindled by social distancing and international travel bans. Wickramasinghe *et al.* (2020) opined that most of the SMEs are on the verge of collapse.

Mhlanga and Ndhlovu (2020) argued that the lockdown and restrictions had adversely impacted many businesses and socio-economic activities in South Africa. Furthermore, a survey by United Nations Development Programme (2020) reports that most SMEs have closed permanently because of the pandemic.

### **6.3 Objective 2: Impact of the COVID-19 Pandemic on the Productivity**

The findings showed the pandemic had negative implications on SMEs' productivity. For instance, the correlation indicated that COVID-19 and SMEs' productivity statistically significant ( $r = 0.771, p < 0.01$ ). Additionally, the regression results indicated a significant relationship between COVID-19 and SMEs productivity ( $\beta = 0.304, p < 0.001$ ). The qualitative findings established the pandemic negatively affected the productivity of SMEs as a result of disruption of the global supply chain, reduction in production, decrease in production inputs, decrease in capacity use, restriction in the shipment of goods, decrease in business operations and unavailability of raw materials. These findings agreed with studies (Gurría, 2020; Hasanat *et al.* 2020; Omar et al. 2020; Oyewale et al. 2020). According to Hasanat *et al.* (2020), government restrictions to address the spread of the disease have severely impacted the supply chain and economies.



Scholarly research by Omar *et al.* (2020) and Oyewale *et al.* (2020) suggested the various lockdown and government policies have impacted businesses, especially SMEs, paralysing their operations as well as productivity. Other scholars such as Gurría (2020) and Segal and Gerstel (2020) also share the view that SMEs have experienced a decline in their productivity due to the pandemic. A survey by OECD (2020b) indicates that because of the shutdowns, various organisations have witnessed a decline in the production level of about 1/5 to 1/2.

According to Haren and Simchi-Levi (2020), the primary supplier of inputs for manufacturing and production industries, has restricted shipment of goods, which tremendously impacted business operations in many countries. According to Nicola *et al.* (2020), about 98% of the sampled firms were concerned that the pandemic negatively affected their business operations. Korankye (2020) found that in Ghana, the pandemic had severely affected SMEs operations. Likewise, in South Africa, nearly 9% of SMEs had ceased operations permanently due to the pandemic (StatsSA 2020a).

#### **6.4 Objective 3: Effect of COVID-19 on Employees**

Objective 3 determined how the COVID-19 pandemic impacted employees in SMEs. Both findings established unfavourable impact of the pandemic on employees. Concerning the quantitative results, Pearson's correlation showed that the pandemic had negative implications on employees in SMEs ( $r = 0.701, p < .0.01$ ). Additionally, the regression analysis showed that the pandemic had a negative implication on employees ( $\beta = 0.367, p < 0.001$ ). The qualitative findings indicated that the pandemic had negative implications on employees in several ways, including job and income loss, increased stress and burnout, increased depression and anxiety, and addiction.

McKinsey (2020) reports that at least two of three jobs within the SME sector are at risk in European countries. According to Wanberg, Ali and Csillag (2020), most businesses were shut down by the COVID-19 pandemic, resulting in millions of job losses in the US. In Australia, about 68% of employment within the SME sector is at risk (McKinsey 2020).

According to Welter et al. (2020), between 850 000 and 1.6 million employees within the SME sector are likely to lose their job. In Canada, a survey by McKinsey (2020) reveals that women-owned enterprises have retrenched about 80% workers. Laborda *et al.* (2021) also discovered that SMEs that did not get any financial assistance from the Spanish government during the COVID-19 pandemic responded by laying off employees. In South Africa, it has been found that one out of every three employees have lost their job since April 2020 (Ranchhod & Daniels 2021).

According to Robinson and Kengatharan (2020), the pandemic has affected SMEs' ability to fulfill their financial obligations. Wanberg *et al.* (2020) point out that several workers have lost their income because of lockdown restrictions and business closures. A study established that in South Africa, about 17% of employees within the SME sector were currently not working and had yet to receive payment (Jain *et al.* 2020). Also, a report by the International Labour Organisation (2020) reveals that nearly 1.6 billion employees within SMEs have been impacted by the pandemic, resulting in 60% decline in their income.

It has also been found that the pandemic increased stress and burnout among employees. According to Afulani *et al.* (2021), the pandemic has increased stress and burnout among employees. Mock (2020) discovers that 47% of respondents surveyed have requested for psychological support due to COVID-19 pandemic related factors. A survey by British Medical

Association (2020) shows that approximately 44% of respondents expressed that they were experiencing burnout, depression, anxiety and other mental health challenges due to the pandemic.

Meyer, Dilba, Gerlach and Schumann (2021) stated that the closure of companies during the lockdown in many countries has forced many employees who did not lose their jobs to work from home. The remote working and social distancing pose several health issues for employees including stress and burnout. Studies by Rudolph *et al.* (2020) and Van Bavel *et al.* (2020) suggested that although government measures are aimed at preventing the spread of the disease, these measures are psychological stressors in their own right.

The findings further indicated that COVID-19 pandemic increased addiction among employees. Avery *et al.* (2020) observed that the social restrictions aimed at reducing the spread of the COVID-19 may lead to an increase in stress and anxiety. Pollard and Tucker and Green (2020) found that because of the lockdown restrictions in US, there was a 54% increase in sales of alcohol for March 2020, compared with the previous year. In view of this, WHO warned that alcohol use is more likely to worsen health issues and risk-taking behaviours (WHO 2020). When commenting further, Wang *et al.* (2021) confirmed that in addition to the risks arising with substance misuse, those with substance disorder are more likely to be infected with the COVID-19 disease and experience worse outcomes such as higher risk of hospitalisation and mortality. According to Dunlop *et al.* (2020), drug addicts are more likely to be vulnerable during the COVID-19 epidemic.

#### **6.5 Objective 4: Factors Influencing the Impact of COVID-19**

Objective 4 determined the factors influencing SMEs in mitigating the COVID-19 pandemic. The findings from both studies established that several factors affected SMEs in mitigating the

consequences of the pandemic. For instance, the results of Pearson's correlation indicated the ability of SMEs to address the consequences of COVID-19 pandemic was impacted by several factors ( $r = 0.654, p < .0.01$ ). The linear regression also confirmed that several factors influenced SMEs in reducing the effects of the pandemic. On the other hand, the qualitative study identified several factors that affected SMEs in mitigating the pandemic, including loss of human capital, limited access to finance, inadequate government support, and restrictive government regulations. The findings agreed with previous research. It was found that although governments relief plans, SMEs are still struggling to survive (Institute of Business Administration 2020).

Asad *et al.* (2020) expressed the concern that SMEs lack the human resource required to increase their performance amidst the COVID-19 outbreak. Chohan (2020) also concurred that because of a lack of skills, SMEs are unable to handle the situation. Dugassa (2012) also noted that SMEs lack human capital because of inadequate training of their employers. Malik *et al.* (2020) argued that many firms, including SMEs, lost their human capital because of the national lockdown in response to the pandemic. Winarsih *et al.* (2020) argued that only innovative SMEs are less affected by the pandemic. Eggers (2020) confirmed that SMEs' performance has been very poor because of the lack of innovation.

Studies (Bartik *et al.* 2020; Cowling *et al.* 2020; Giupponi & Landais 2020) found that SMEs have limited access to financial resources due to the lockdowns and movement restrictions. Malik *et al.* (2020) observed that in Pakistan, the government cannot finance SMEs, especially during the COVID-19 pandemic. The situation also remains the same in UK, where it was reported that 41% businesses have already been closed as a result of inadequate support from the government (Malik *et al.* 2020).

Asad *et al.* (2020) argued that although the governments of many countries have taken initiatives to support SMEs withstand the crisis, they are woefully inadequate to ensure that survival. Ganaie *et al.* (2020) recommend that SMEs require specific support such as access to loans, tax exemption, and utility subsidies.

Besides, evidence suggests that the costs for prevention and changes in the world of work are relatively higher for SMEs because of the size of their firms and lack of innovation (Cusmano & Raes 2020). Additionally, it has been argued that SMEs have limited access to information because of the pandemic; hence, they are unaware of the strategies to reduce the impact (Cusmano & Raes 2020).

Abulibdeh (2020) mentioned that the adoption of teleworking in crisis such as this could help reduce the negative impact of the pandemic. In Japan, a recent survey suggests only 10-20% of SMEs have adopted teleworking during the pandemic (Okubo 2020). In Germany, McKinsey (2020) reports that 88% of SMEs relied on physical work arrangements during the pandemic.

## **6.6 Objective 5: Strategies to Mitigate the Impact of the COVID-19 Pandemic**

Objective 5 examined the strategies adopted by SMEs to mitigate the effects of the pandemic. Pearson's correlation indicated a moderate positive relationship between COVID-19 and strategies adopted by SMEs to mitigate the pandemic ( $r = 0.511, p < .0.01$ ). Additionally, linear regression confirmed that the strategies adopted by SMEs could help to mitigate the consequences of the pandemic ( $\beta = 0.385, p < 0.001$ ). The qualitative findings also confirmed that several strategies could be adopted to remedy the consequences of the pandemic on SMEs, including the introduction of teleworking, adoption of new technologies, knowledge sharing, rewarding creative talent, an opportunity for training and development and managerial and leadership skills. These recommendations by the participants are also supported by previous studies.

Asad and Kashif (2021) suggested that flexible organisations encourage their workers to work remotely. Asad and Kashif (2021) strongly recommended that SME owners need to make decisions that will ensure the flexibility of the businesses to withstand the economic challenges imposed by the pandemic. This perspective underscores teleworking, where employees are allowed to perform their tasks remotely. Moreover, in their study, Winarsih et al. (2020) advocate that to mitigate the challenges associated with the pandemic, SMEs need to implement innovative practices such as knowledge sharing and transfer, training and development and teamwork.

Besides, Thi Minh Ly et al. (2022) recommend that organisations should encourage knowledge sharing among employees to maintain and enhance organisational performance. Singh et al. (2021) acknowledge that to address the emerging challenges facing effective knowledge management in the current crisis, organisations should find creative ways to improve knowledge sharing among employees.

## **6.7 Chapter Summary**

The findings from both studies (qualitative and quantitative research) established that the pandemic positively impacted SMEs' financial performance. The quantitative findings indicated that COVID-19 pandemic and SMEs financial performance are statistically significant. The qualitative findings also confirmed that the pandemic negatively affected SMEs financial performance, especially during the lockdowns. They expressed that the pandemic and subsequent lockdowns resulted in revenue loss, limited spare financial resources, lack of cash reserves, financial distress, limited access to bank loan/credit, negative growth sales, loss of sales, and reduction in cash flow. Furthermore, it was found that the pandemic had negative implications on SMEs' productivity. The qualitative findings also confirmed that the pandemic negatively affected the productivity of SMEs as a result of disruption of the global supply chain, reduction in

production, decrease in production inputs, decrease in capacity use, restriction in the shipment of goods, decrease in business operations and unavailability of raw materials.

Concerning the quantitative results, Pearson's correlation showed that the relationship between COVID-19 and employees in SMEs was significant. Additionally, the regression analysis showed that the pandemic had a negative implication on employees. The qualitative findings indicated that the pandemic had negative implications on employees in several ways, including job and income loss, increased stress and burnout, increased depression and anxiety, and addiction.

The findings from both studies established that several factors affected SMEs in mitigating the consequences of the pandemic. For instance, Pearson's correlation showed a significant relationship between the COVID-19 pandemic and factors influencing the impact of COVID-19. The linear regression also confirmed that several factors influenced SMEs in reducing the impact of the pandemic. Also, the qualitative study identified several factors that affected SMEs in combating the COVID-19 pandemic, including loss of human capital, limited access to finance, inadequate government support, and restrictive government regulations. Also, the qualitative findings indicated that several strategies could be adopted to remedy the consequences of the pandemic on SMEs, including the introduction of teleworking, adoption of new technologies, knowledge sharing, rewarding creative talent, an opportunity for training and development and managerial and leadership skills.

## **CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS**

### **7.1 Introduction**

The deals with the conclusion and recommendations of the key findings. The conclusion and recommendation are aligned with the stated objectives: to investigate the effect of the COVID-19 pandemic on the financial performance of small and medium construction enterprises; to examine the impact of the COVID-19 pandemic on the productivity of small and medium construction enterprises; to determine the effects of the COVID-19 pandemic on employees performance in the small and medium construction enterprises; to identify the factors influencing the impact of the COVID-19 pandemic on small and medium construction enterprises and to determine strategies to mitigate the pandemic on SMEs

### **7.2 Conclusion of the Study**

The following conclusions are provided:

#### **7.2.1 Objective 1: Effects of COVID-19 on the financial performance**

Objective 1 investigated how the pandemic impacted SMEs' financial performance. The findings confirmed that COVID-19 had negative implications on SMEs financial performance. The Pearson's correlation showed that the relationship between COVID-19 and SMEs financial performance was significant. Moreover, the regression analysis confirmed a positive relationship between COVID-19 and financial performance. The qualitative findings also showed that the pandemic negatively affected SMEs financial performance, especially during the lockdowns. The findings showed that the pandemic and subsequent lockdowns resulted in revenue loss, limited spare financial resources, lack of cash reserves, financial distress, limited access to bank loan/credit, negative growth sales, loss of sales and reduction in cash flow.



### **7.2.2 Objective 2: impact of the COVID-19 pandemic on SMEs' productivity**

Objective 2 examined how the pandemic impacted SMEs' productivity. The quantitative findings indicated that pandemic had negative implications on SMEs' productivity. For instance, the correlation and linear regression showed a significant relationship between COVID-19 and SMEs' productivity. Also, the qualitative findings established the pandemic negatively affected the productivity of SMEs because of disruption of the global supply chain, reduction in production, decrease in production inputs, decrease in capacity use, restriction in the shipment of goods, decrease in business operations and unavailability of raw materials.

### **7.2.3 Objective 3: Effect of COVID-19 on employees**

Objective 3 determined the implications of the pandemic on employees in SMEs. Both studies established that the pandemic had negative consequences on employees in SMEs. For instance, the quantitative findings revealed that a significant relationship existed between COVID-19 and employees in SMEs. The qualitative findings also confirmed that the pandemic had negative implications on employees in several ways, including job loss and income, increased stress and burnout, increased depression and anxiety, and addiction.

### **7.2.4 Objective 4: Factors influencing the impact of COVID-19**

Objective 4 determined the factors influencing SMEs in mitigating the pandemic. The findings from both studies established that several factors affected SMEs in mitigating the consequences of the pandemic. It was found that several factors impacted SMEs in mitigating the pandemic, including loss of human capital, limited access to finance, inadequate government support, and restrictive government regulations.

### **7.2.5 Objective 5: Strategies to mitigate the impact of the COVID-19 pandemic**

Objective 5 examined the strategies adopted by SMEs to mitigate the consequences of the pandemic. The qualitative findings indicated that several strategies could be adopted to remedy the consequences of the pandemic on SMEs, including the introduction of teleworking, adoption of new technologies, knowledge sharing, rewarding creative talent, an opportunity for training and development and managerial and leadership skills.

## **7.3 Recommendations of the Study**

Here are the proposed recommendations that stem from the study:

### **7.3.1 Recommendation 1: Appointment of competent human capital**

Research shows that human capital is an important resource among all other resources in an organisation. Human capital creates a strong competitive advantage for many organisations. However, the findings showed that most SMEs within the construction and engineering industries lacked the human capital to survive, especially post-COVID-19 pandemic. For instance, the qualitative and quantitative results revealed that most organisations do not have qualified employees to help mitigate the consequences of the pandemic. It was also found that although most firms have employees, specific skills like computing and accounting are still lacking in such organisations. The study concluded that the unavailability of people with these skills impeded the firms' efforts toward addressing the consequences of the pandemic. Against this background, this study recommends appointing and recruiting intellectual capital to help SMEs mitigate the consequences of the pandemic. It is believed that the appointment of competent employees will create value for the organisation during and after the pandemic.

### **7.3.2 Recommendation 2: Access to credit/bank loan**

The study found that one of the challenges facing SMEs is access to credit or loans from financial institutions. It was established that the financial performance of SMEs had been impacted negatively because of limited access to credit facilities. For instance, all the participants expressed that their organisations had difficulty accessing credit or loans from financial institutions during the pandemic. Moreover, argued that although the government required financial institutions to give soft loans to struggling firms, they could not access loans. The study concluded that the conditions for the loan were very stringent, which disqualified SMEs from accessing it. Therefore, the study recommends that SMEs be assisted with soft loans to help them survive during and after the pandemic. The study further suggests that financial institutions should not only depend on collateral security as the primary determinant for a loan. They should also consider other criteria, such as the credibility of the business owners, the duration of the firm in business and credit history.

### **7.3.3 Recommendation 3: Government support**

It has been found that one of the challenges facing them is the lack of government support. This study confirms that SMEs in the construction and engineering industries have difficulty dealing with the pandemic because of the lack of government support. For instance, most participants agreed that the stimulus packages offered by the government were insufficient to enable them survive during the pandemic. Also, it was established SMEs do not have the financial resources to address the havoc created by the pandemic. Against this background, the study recommends that governments, including South Africa, should create more avenues for SMEs to thrive. The government should establish an SME bank purposely to provide financial support to struggling SMEs.

#### **7.3.4 Recommendation 4: Create enabling business environment**

The findings from this study confirmed that government regulations, especially during the pandemic, have worsened the challenges confronting SMEs. The study concluded that the government's restrictive measures during the pandemic exacerbated the problems. For these reasons, it is recommended that government should create a conducive environment for SMEs to thrive. The government must remove trade barriers that limit the potential for business survival and growth in South Africa. Also, the study recommends that government regulations be flexible to ensure full compliance. To achieve this, the government must include the business community and other stakeholders in the policy formulation and implementation process.

#### **7.3.5 Recommendation 5: Introduction of teleworking**

The results suggested many organisations have adopted teleworking to ensure the continuity of their business operations during the pandemic. The results showed that teleworking provided the employees an opportunity to work remotely. Therefore, the study recommends that organisations, including SMEs should adopt teleworking to help reduce the pressure on the employees at work. To promote teleworking, the organisation should create a policy and procedure that will give all opportunities in the workplace.

#### **7.3.6 Recommendation 6: Encourage knowledge sharing**

Knowledge sharing has become a common practice among employees, especially in learning organisations. The findings revealed that knowledge sharing could help communicate important information about the pandemic in organisations. The participants recommended that to help fight the pandemic, the organisation must encourage knowledge sharing among employees. Also, they proposed that organisations should create space for knowledge sharing to occur. In addition, the study recommends that organisations should make available knowledge-sharing tools. This study

also supports the recommendations made by the participants. It is recommended that SMEs, including construction and engineering companies, encourage and inspire their employees to share best practices that will enable them to complete their tasks successfully.

#### **7.4 Limitations of the Study**

The study was included only SMEs in the construction and engineering industries within the KwaZulu-Natal province. This implies that the findings could be applied to only the construction and engineering industries. Furthermore, the researcher found it challenging in accessing the respondents. The study was conducted during the COVID-19 pandemic. Besides, the e social distancing rules and fear of being infected with the disease was another limitation of this study. Also, the research method adopted to investigate the subject matter posed a significant challenge for the study. The study adopted the mixed-methods approach to collect and analyse both qualitative and quantitative data. Although this method helped improve the validity of the research findings, it was more complex because of the additional time and resources required.

#### **7.5 Directions for Future Research**

The scope of the included only SMEs in the construction and engineering industries within the KwaZulu-Natal province. Therefore, it can be argued that findings could only be generalised to cover the construction and engineering industries. Hence, future studies should include SMEs in the construction and engineering industry to explore the domains not addressed in this study. Also, future research should adopt structural equation modelling to test the relationship between the dependent and independent variables.

## **7.6 Chapter Summary**

The results indicated that the relationship between COVID-19 and SMEs financial performance are statistically significant. Besides, the findings revealed that relationship between COVID-19 and SMEs' productivity are significant. In addition, the relationship between COVID-19 and employees in SMEs was significant. Furthermore, the study revealed that several factors affected SMEs in mitigating the consequences of the pandemic including, loss of human capital, limited access to finance, inadequate government support, and restrictive government regulations. Also, the findings indicated that several strategies could be adopted to remedy the consequences of the pandemic on SMEs, including the introduction of teleworking, adoption of new technologies, knowledge sharing, rewarding creative talent, an opportunity for training and development and managerial and leadership skills.

## REFERENCES

- Abiwu, L., 2016. *Impact of employee strike action on employment relations in selected ACCRA, Ghana, public universities* (Doctoral dissertation).
- Abosedo, A.O., Opawole, A., Olubola, B., Ojo, G.K. and Kajimo-Shakantu, K., 2019. Performance analysis of small and medium-sized construction firms in Oyo State, Nigeria. *Acta Structilia*, 26(1), pp.66-96.
- Abulibdeh, A., 2020. Can COVID-19 mitigation measures promote telework practices?. *Journal of Labor and Society*, 23(4), pp.551-576.
- Afulani, P. A., Gyamerah, A. O., Nutor, J. J., Laar, A., Aborigo, R. A., Malechi, H. and Awoonor-Williams, J. K., 2021. Inadequate preparedness for response to COVID-19 is associated with stress and burnout among healthcare workers in Ghana. *PloS one*, 16(4), pp.e0250294.
- Agyemang, O. S., Aboagye, E., Antwi, S. and Frimpong, J., 2014. Board of Directors and Firm Performance of banking institutions: A Ghanaian experience. *European Journal of Economics, Finance and Administrative Sciences*, 67, pp.45–59.
- Aigbavboa, C. and Thwala, W.D., 2014. Challenges facing black owned small and medium construction companies: A case study of Nelspruit-Mbombela Municipality, South Africa. *Journal of Economics and Behavioral Studies*, 6, pp.771-778.
- Akhmadeev, B., and Manakhov, S., 2015. Effective and sustainable cooperation between start-ups, venture investors, and corporations. *Journal of Security and Sustainability Issues*, 5(2), pp. 269-284, [https://doi.org/10.9770/jssi.2015.5.2\(12\)](https://doi.org/10.9770/jssi.2015.5.2(12))

- Akis, E., 2015. Innovation and competitive power. *Procedia Social and Behavioral Sciences* 195, pp.1311-1320.
- Alenda-Demoutiez, J. and Mügge, D., 2020. The lure of ill-fitting unemployment statistics: how South Africa's discouraged work seekers disappeared from the unemployment rate. *New Political Economy*, 25(4), pp.590-606.
- Al-Fadly, A., 2020. Impact of COVID-19 on SMEs and employment. *Entrepreneurship and Sustainability Issues*, 8(2), p.629.
- Alghamdi, A. H. and Li, L., 2013. Adapting design-based research as a research methodology in educational settings. *International Journal of Education and Research*, 1(10), pp.1-12.
- Ali, I. F., 2021. Contribution of Construction SMEs to Sustainable Development in Nigeria. *International Journal of Small Business and Entrepreneurship Research*, 9(3), pp.22-38.
- Ali, S., 2013. The small and medium enterprises and poverty in Pakistan: An empirical analysis. *European Journal of Business and Economics*, 8, pp.25–30
- Altman, M., 2001. Employment promotion in a minerals economy. *Journal of International Development* 13, pp.1–19.
- Altman, M., 2022. Trajectories for South African employment after COVID-19. *South African Journal of Science*, 118(5-6), pp.1-9.
- Ametepey, S. O., Jnr, E. Y. F. and Cobbina, J. E., 2022. Barriers to the Growth of Small and Medium Scale Construction Enterprises in Ghana. *Open Journal of Civil Engineering*, 12(1), pp.38-55.



- ANDE., 2012. *Small and growing businesses: investing in the missing middle for poverty alleviation literature review*. Aspen Network of Development Entrepreneurs.
- Andrade, C., 2020. Sample size and its importance in research. *Indian journal Of Psychological Medicine*, 42(1), pp.102-103
- Anggadwati, G. and Mustafid Q.Y., 2014. Identification of factors influencing the performance of small medium enterprises (SMEs). *Social and Behavioral Sciences*, 115, pp.415-423. (DOI:<https://doi.org/10.1016/j.sbspro.2014.02.448>.)
- Anney, V.N., 2014. *Ensuring the quality of the findings of qualitative research: Looking at trustworthiness criteria*. <http://hdl.handle.net/123456789/256>
- Arasti, Z., Zandi, F. and Talebi, K., 2012. Exploring the effect of individual factors on business failure in Iranian new established small businesses. *International Business Research*, 5(4), pp.2-11. doi:10.5539/ibr.v5n4p2
- Asad, M., Muhammad, R., Rasheed, N., Chethiyar, S. D. and Ali, A., 2020. Unveiling antecedents of organizational politics: An exploratory study on science and technology universities of Pakistan. *International Journal of Advanced Science and Technology*, 29(6s), pp.2057–2066
- Asah, F. T., Louw, L. and Williams, J., 2020. The availability of credit from the formal financial sector to small and medium enterprises in South Africa. *Journal of Economic and Financial Sciences*, 13(1), pp.10-16
- Atmowardoyo, H., 2018. Research methods in TEFL studies: Descriptive research, case study, error analysis, and R & D. *Journal of Language Teaching and Research*, 9(1), pp.197-204.

- Avery, A. R., Tsang, S., Seto, E. Y. and Duncan, G. E., 2020. Stress, anxiety, and change in alcohol use during the COVID-19 pandemic: findings among adult twin pairs. *Frontiers in Psychiatry, 11*, pp. 1-8
- Ayandibu, A. O. and Houghton, J., 2017. The role of Small and Medium Scale Enterprise in local economic development (LED). *Journal of Business and Retail Management Research, 11(2)*, pp.133-139
- Azorín, J. M. and Cameron, R., 2010. The application of mixed methods in organisational research: A literature review. *Electronic Journal of Business Research Methods, 8(2)*, pp.95-105.
- Babbie, E.R., 2020. *The practice of social research*. Cengage learning.
- Baby, A. and Joseph, C.A.C., 2016. Bank finance challenges faced by UAE SME sector', *Arabian Journal of Business Management Review 1(5)*, pp.1–3.
- Balcerzak, A. P., Kliestik, T., Streimikiene, D. and Smrčka, L., 2017. Nonparametric approach to measuring efficiency of banking sectors in European Union countries. *Acta Polytechnica Hungarica, 14(7)*, pp.51-70.
- Balla-Elliott, D., Cullen, Z., Glaeser, E. L., Luca, M. and Stanton, C., 2020. Business reopening decisions and demand forecasts during the COVID-19 pandemic. *SSRN Electronic Journal, 1(1)*, pp.1-19<https://doi.org/10.2139/ssrn.3634162>.
- Banda, H., Ngirande, H. and Hogwe, F., 2016. The impact of economic growth on unemployment in South Africa: 1994-2012. *Investment Management and Financial Innovations, 13(2)*, pp.246-255.

- Baños-Caballero, S., García Teruel, P. J. and Martínez-Solano, P., 2016. Financing of working capital requirement, financial flexibility and SME performance. *Journal of Business Economics and Management*, 17(6), pp.1189-1204. <https://doi.org/10.3846/1>.
- Barbera, J., Naibert, N., Komperda, R. and Pentecost, T.C., 2020. Clarity on Cronbach's alpha use. *Journal of Chemical Education*, 98(2), pp.257-258.
- Barrero, J. M., Bloom, N. and Davis, S. J., 2020. COVID-19 is also a reallocation shock. *SSRN Electronic Journal*, 1(3), pp.5-16, <https://doi.org/10.2139/ssrn.3592953>
- Bartik, A. W., Bertrand, M., Cullen, Z. B., Glaeser, E. L., Luca, M. and Stanton, C. T., 2020. *How are small businesses adjusting to COVID-19? Early evidence from a survey (No. w26989)*. National Bureau of Economic Research
- Bartik, A. W., Bertrand, M., Cullen, Z., Glaeser, E. L., Luca, M. and Stanton, C., 2020. The impact of COVID-19 on small business outcomes and expectations. *Proceedings of the National Academy of Sciences*, 117(30), pp.17656-17666.
- Basson, Y., 2017. Selected developments in South African labour legislation related to persons with disabilities. *PER / PELJ*, 20, pp.2–21. <http://doi.org/10.17159/1727-3781/2017/v2>.
- Baxter, J. and Eyles, J., 1997. Evaluating qualitative research in social geography: establishing 'rigour' in interview analysis. *Transactions of the Institute of British geographers*, 22(4), pp.505-525.
- Beck, T., and Cull, R., 2014. *Small and medium-sized enterprise finance in Africa. African Growth Initiative (working paper 16)*. Washington DC: Brookings.

- Beglaryan, M. and Shakhmuradyan, G., 2020. The impact of COVID-19 on small and medium-sized enterprises in Armenia: Evidence from a labor force survey. *Small Business International Review*, 4(2), pp298-308
- Begum, A. and Abdin, M., 2015. Employment generation and poverty alleviation through SME cluster development in Bangladesh. *Turkish Econ. Rev*, 2(1), pp.3-8
- Bekele, E. and Worku, Z., 2008. Factors that affect the long-term survival of micro, small and medium enterprises in Ethiopia. *South African Journal of Economics* 76(3), pp.548–568. <http://dx.doi.org/10.1111/j.1813-6982.2008.00207.x>
- Bello, A., Jibir, A. and Ahmed, I., 2018. Impact of small and medium scale enterprises on economic growth: Evidence from Nigeria. *Global Journal of Economics and Business*, 4(2), pp.236- 244.
- Bernard, H.R., 2011. *Research methods in anthropology*. (5th ed). Alta Mira Press
- Bhorat, H. and Hodge, J., 1999. Decomposing shifts in labour demand in South Africa. *South African Journal of Economics* 67(3), pp.348–380.
- Bitsch, V., 2005. Qualitative research: A grounded theory example and evaluation criteria. *Journal of Agribusiness*, 23(345), pp75-91.
- Boldureanu, G., Ionescu, A. M. and Bercu, A. M., 2020. Bedrule-Grigorut, ă, MV; Boldureanu, D. *Entrepreneurship education through successful entrepreneurial models in higher education institutions. Sustainability*, 12, pp.1267-1275

- Bouey, J., 2020. Assessment of COVID-19's impact on small and medium-sized enterprises: Implications from china. *From <https://www.rand.org/pubs/testimonies/CT524.html>, accessed on 17 May 2020.*
- Bougie, R. and Sekaran, U. 2016. *Research Methods for Business: A Skill Building 7 ed.* Wily.
- Braun, V. and Clarke, V., 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), pp.77-101.
- Brown, R., Rocha, A. and Cowling, M., 2020. <? covid19?> Financing entrepreneurship in times of crisis: Exploring the impact of COVID-19 on the market for entrepreneurial finance in the United Kingdom. *International Small Business Journal*, 38(5), pp.380-390.
- Bryman, A. and Bell, E., 2011. *Business research methods. 3rd ed.* Oxford et al.: Oxford University Press.
- Bureau for Economic Research., 2016. *The small, medium and micro enterprise sector of South Africa Note Research 1.* Small Enterprise Development Agency.
- Burton, R.M, Obel, B. and Håkonsson, D., 2015. *Organizational design: a step-by-step approach, 3rd edn.* Cambridge University Press, Cambridge
- Bushe B., 2019. The causes and impact of business failure among small to micro and medium enterprises in South Africa. *Africa's Public Service Delivery and Performance Review* 7(1), pp.1-26. (DOI:<https://doi.org/10.4102/apsdpr.v7i1.210>).
- Cant, M. C., Erdis, C. and Sephapo, C. M., 2014. Business survival: The constraints experienced by South African SMEs in the financial sector. *International Journal of Academic Research in Business and Social Sciences*, 4(10), pp565-572

- Chakrabartty, S.N., 2020. Combining Likert items with different number of Response categories. *Proceedings on Engineering Sciences*, 2(3), pp.311-322.
- Chaturvedi, S. and Saha, S., 2019. *Manufacturing and jobs in South Asia: Strategy for sustainable economic growth*. Springer.
- Check, J. and Schutt, R. K. 2011. *Research methods in education*. Sage Publications.
- Chen, H.L., Hsu, W.T. and Chang, C.Y. 2014. Family ownership, institutional ownership, and internationalization of SMEs. *Journal of Small Business Management*, 52(4), pp.771-789.
- Chimucheka, T., 2013. Overview and performance of the SMMEs sector in South Africa. *Mediterranean Journal of Social Sciences*, 4(14), pp783-783.
- Chohan, U. W., 2020. Forecasting the economic impact of coronavirus on developing countries: Case of Pakistan. *CASS Working Papers on Economics & National Affairs*, 1–26.
- Chu, H.M., Kara, O. and Benzing, C., 2008. An empirical study of Nigerian entrepreneurs: success, motivations, problems, and stress. *International Journal of Business Research*, 8(2), pp.102-116.
- Collis, J. and Hussey, R., 2013. *Business research: A practical guide for undergraduate and postgraduate students*. Macmillan International Higher Education.
- Cowling, M., Brown, R. and Rocha, A., 2020 <? Covid19?> did you save some cash for a rainy COVID-19 day? The crisis and SMEs. *International Small Business Journal*, 38(7), 593-604.

- Creswell, J. W., Klassen, A. C., Plano Clark, V. L. and Smith, K. C., 2011. Best practices for mixed methods research in the health sciences. *Bethesda (Maryland): National Institutes of Health*, 2013, 541-545.
- Cusmano, L. and Raes, S., 2020. OECD Policy Responses to Coronavirus (COVID-19); Coronavirus (COVID-19): SME policy responses. Retrieved from *OECD Better Policies for Better Lives*: <http://www.oecd.org/coronavirus/policy-responses/coronavirus-covid-19-sme-policy-responses-04440101/#section-d1e160>.
- Dai, R., Feng, H., Hu, J., Jin, Q., Li, H., Wang, R., Wang, R., Xu, L. and Zhang, X., 2021. The impact of COVID-19 on small and medium-sized enterprises (SMEs): Evidence from two-wave phone surveys in China. *China Economic Review*, 67, p.101607.
- Dar, I. A. and Mishra, M., 2019. Human capital and SMEs internationalization: Development and validation of a measurement scale. *Global Business Review*, p.0972150918817390.
- Dawadi, S., Shrestha, S. and Giri, R.A., 2021. Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, 2(2), pp.25-36.
- de Sousa Jabbour, A. B. L., Ndubisi, N. O. and Seles, B. M. R. P., 2020. Sustainable development in Asian manufacturing SMEs: Progress and directions. *International Journal of Production Economics*, 225, pp.107567-107574
- DeGracia, D. J., Tri Anggraini, F., Taha, D. T. M. and Huang, Z. F., 2014. Inductive and deductive approaches to acute cell injury. *International Scholarly Research Notices*, 2014.

- Demirgüç-Kunt, A., Peria, M. S. M. and Tressel, T., 2020. The global financial crisis and the capital structure of firms: Was the impact more severe among SMEs and non-listed firms?. *Journal of Corporate Finance*, 60, pp.101514-101525
- Denzin, N. K. and Lincoln, Y. S., 2011. *The Sage handbook of qualitative research*. sage.
- Department of Trade and Industry. 2015. *Annual financial review of small business in South Africa, 2014–2015*, The DTI, Pretoria, South Africa
- Dewey, J., 1981. The need for a recovery of philosophy. In J. J. McDermott (Ed.), *The philosophy of John Dewey* (pp. 58-97). Chicago: University of Chicago Press. (Original work published 1917).
- Dillman, D. A., Smyth, J. D. and Christian, L. M., 2014. *Internet, phone, mail, and mixed-mode surveys: the tailored design method*. John Wiley & Sons.
- Downing, S. M., 2004. Reliability: on the reproducibility of assessment data. *Medical Education*, 38(9), pp.1006-1012.
- Dua, A., Ellingrud, K., Mahajan, D. and Silberg, J., 2020. *Which small businesses are most vulnerable to COVID-19—and when*. McKinsey & Company.
- Dunlop, A., Lokuge, B., Masters, D., Sequeira, M., Saul, P., Dunlop, G. and Maher, L., 2020. Challenges in maintaining treatment services for people who use drugs during the COVID-19 pandemic. *Harm Reduction Journal*, 17(1), pp.1-7.
- Ebrahim, S., 2018. Reviewing the suitability of affirmative action and the inherent requirements of the job as grounds of justification to equal pay claims in terms of the employment equity act 55 of 1998. *PER / PELJ*, 21, pp.2–38.



- Edwards, L., 2000. Globalisation and the skill bias of occupational employment in SA. *South African Journal of Economics* 69(1), pp.40–71.
- Elfil, M. and Negida, A., 2017. Sampling methods in clinical research; an educational review. *Emergency*, 5(1), pp.52-58
- Engel, R. J. and Schutt, R. K., 2016. *The practice of research in social work*. Sage Publications.
- Etikan, I., and Bala, K., 2017. Combination of probability random sampling method with non-probability random sampling method (sampling versus sampling methods). *Biometrics & Biostatistics International Journal*, 5(6), pp.210-213.
- Eton, M., Mwosi, F., Okello-Obura, C., Turyehebwa, A. and Uwonda, G., 2021. Financial inclusion and the growth of small medium enterprises in Uganda: empirical evidence from selected districts in Lango sub-region. *Journal of Innovation and Entrepreneurship*, 10(1), pp.1-23.
- Eton, M., Mwosi, F., Okello-Obura, C., Turyehebwa, A. and Uwonda, G. 2021. Financial inclusion and the growth of small medium enterprises in Uganda: empirical evidence from selected districts in Lango sub-region. *Journal of Innovation and Entrepreneurship*, 10(1), pp.1-23.
- European Commission, 2012. *SME Definition—small and medium sized enterprises (SME)—enterprise and industry*.
- Fabeil, N. F., Pazim, K. H. and Langgat, J., 2020. The impact of Covid-19 pandemic crisis on micro-enterprises: Entrepreneurs' perspective on business continuity and recovery strategy. *Journal of Economics and Business*, 3(2), pp.1-9, DOI:10.31014/aior.1992.03.02.

- Fabeil, N. F., Pazim, K. H. and Langgat, J., 2020. The impact of Covid-19 pandemic crisis on micro-enterprises: Entrepreneurs' perspective on business continuity and recovery strategy. *Journal of Economics and Business*, 3(2), pp.1-9, DOI:10.31014/aior.1992.03.02.
- Fatoki, O., 2014. The impact of managerial competencies on the performance of immigrant- owned enterprises in South Africa. *Mediterranean Journal of Social Sciences*, 5(6), pp.141–144. <https://doi.org/10.5901/mjss.2014.v5n6p141>
- Feilzer, M., 2010. Doing mixed methods research pragmatically: Implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research* 4(1), pp.6–16.
- Feldman, E. R., 2020. Corporate strategy: Past, present, and future. *Strategic Management Review*, 1, 179– 206.
- FinScope MSME Survey Zimbabwe., 2012. *Fin mark trust*. Retrieved from <https://finmark.org.za/finscope-msme-survey-zimbabwe-2012/>
- FinScope., 2010. South Africa small business survey [Online]. Available: [http://www.btrust.org.za/downloads/0\\_nsbs\\_finscope\\_small\\_business\\_survey\\_final](http://www.btrust.org.za/downloads/0_nsbs_finscope_small_business_survey_final).
- Fiseha, G. G. and Oyelana, A. A., 2015. An assessment of small and medium enterprises (SMEs) in the local economic development (LED) in South Africa. *Journal of Economics*, 6(3), pp.280-290.
- Fiseha, G. G., and Oyelana, A. A., 2015. An assessment of the roles of small and medium enterprises (SMEs) in the local economic development (LED) in South Africa. *Journal of Economics*, 6(3), pp.280-290.

- Foghani, S., Mahadi, B. and Omar, R., 2017. Promoting clusters and networks for small and medium enterprises to economic development in the globalization era. *SAGE open*, 7(1), p2158244017697152.
- Fowowe, B., 2017. Access to finance and firm performance; evidence from African countries. *Review of development finance*, 7(1), pp.6–17. <https://doi.org/10.1016/j.rdf.2017.01.006>
- Fransman, T. and Yu, D., 2018. Multidimensional poverty in South Africa in 2001–16. *Development Southern Africa* 36(1), pp.50–79. doi: 10.1080/0376835X.2018.1469971
- Furawo, T. and Scheepers C.A., 2018. Factors impacting innovative capacity of small-and medium-sized enterprises in Cape Town. *Journal of Management and Administration* 1(2), pp.31-59.
- Gachina, S. N., 2016. *The Effect of Leadership on Small and Medium Sized Enterprises Debt Management: a Case of Kandara Town* (Doctoral dissertation, University of Nairobi).
- Galetić, L., Načinović, B. and Aleksić, A., 2011). Organizational characteristics of small and medium croatian enterprises: An empirical study. University of Zagreb.
- Galunic, C. and Rodan, S., 1998. Resource recombinations in the firm: knowledge structures and the potential for Schumpeterian innovation. *Strategic Management Journal*, 19(12), 1193–1201.
- Ganaie, M. A., Zafar, F. and Seth, N. J., 2020. Impact of COVID-19 (coronavirus) on small and medium enterprises (SMEs) in Pakistan. *ResearchGate*, pp.1–32. doi:10.13140/RG.2.2.21236.09607.

- Ganu, J., and Boateng, P. A., 2012. Creating a culture of enterprising women through succession planning. *American Journal of Management*, 12(2/3), pp.69–80
- García-Batista, Z.E., Guerra-Peña, K., Nouri Kandany, V., Marte, M.I., Garrido, L.E., Cantisano-Guzmán, L.M., Moretti, L. and Medrano, L.A., 2021. COVID-19 pandemic and health worker stress: The mediating effect of emotional regulation. *PloS one*, 16(11), p.e0259013.
- Global Entrepreneurship Monitor (GEM), 2014. *2014 report on higher expectation entrepreneurship*. Available on [www.gemconsortium.org](http://www.gemconsortium.org), retrieved on 12 July 2021.
- Global Entrepreneurship Monitor (GEM). 2020. 2019/2020 Global Report. [Internet:<https://www.gemconsortium.org/file/open?fileId=50443>; downloaded on 09 July 2021.]
- Godderis, L. and Luyten, J., 2020. Challenges and opportunities for occupational health and safety after the COVID-19 lockdowns. *Occupational and environmental medicine*, 77(8), pp.511-512.
- Godfrey, J. and Hodgson, A., 2010. *Accounting theory*. (7th ed). Wiley. ISBN: 978-0-470-81815-2.
- Gombarume, F.B. and Mavhundutse, S., 2014. Challenges faced by small to medium scale enterprises: A case study of Chitungwiza, Zimbabwe. *Greener Journal of Business and Management Studies*, 4(4), pp.103–107. <https://doi.org/10.15580/GJBMS.2014.4.10211>.
- Gopinath, G., 2020. Limiting the economic fallout of the coronavirus with large targeted policies. *Mitigating the COVID economic crisis: Act fast and do whatever it takes*, pp.41-48.

- Goriwondo, W.M., 2013. Requisite managerial skills for small to medium enterprises (SMEs) to enhance development and business growth. *Industrial and Manufacturing Engineering, National University of Science and Technology*, Newspaper Articles, pp.1–4.
- Govori A., 2013. Factors affecting the growth and development of SMEs; Experience from Kosovo. *Mediterranean Journal of Social Sciences* 4(9), pp.701-708. (DOI:<https://10.36941/mjss>).
- Gray, D. E., Saunders, M. N. K. and Goregaokar, H., 2012. *Success in challenging times: Key lessons for UK SMEs*. University of Surrey.
- Grinnell Jr, R. M., and Unrau, Y. A., 2010. *Social work research and evaluation: Foundations of evidence-based practice*. Oxford University Press.
- Gurría, A., 2020. *Tackling coronavirus (COVID-19) contributing to a global effort*. Organisation for Economic Co-operation and Development (OECD) viewed.
- Haigh, F., Kemp, L., Bazeley, P. and Haigh, N., 2019. Developing a critical realist informed framework to explain how the human rights and social determinants of health relationship works. *BMC public health*, 19(1), pp.1-12.
- Hamrouni, D. A. and Akkari, I., 2012. The entrepreneurial failure: Exploring links between the main causes of failure and the company life cycle. *International Journal of Business and Social Science*, 3(4), 189-205. Retrieved from <http://www.ijbssnet.com/update/>
- Haren, P. and Simchi-Levi, D., 2020. How coronavirus could impact the global supply chain by mid-March. *Harvard Business Review*, 28, pp.5-18.

- Harmancioglu, N., Grinstein, A. and Goldman, A., 2010. Innovation and performance outcomes of market information collection efforts: the role of top management team involvement. *International Journal of Research in Marketing*, 27, pp.33–43.
- Harrison, J. S., 2020. *Sustaining High Performance in Business*. New York: Business Expert Press
- Hasanat, M. W., Hoque, A., Shikha, F. A., Anwar, M., Hamid, A. B. A. and Tat, H. H., 2020. The impact of coronavirus (Covid-19) on E-business in Malaysia. *Asian Journal of Multidisciplinary Studies*, 3(1), pp.85–90.
- Haven, A., 2015. The financial system and the financial literacy imperative in developing countries. *European Academic Research* 3(4), pp.3754–3779.
- Hayton J. 2015. Leadership and Management skills in SMEs: Measuring associations with management practices and performance. [Internet:<https://assets.publishing>].
- Hazzi, O. and Maldaon, I., 2015. A pilot study: Vital methodological issues. *Business: Theory and Practice*, 16(1), pp.53-62.
- Herawati, S. D., 2021. Analysis of the Impact of the COVID 19 Pandemic on Online Marketing at Small and Medium Enterprises (MSMEs). *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 12(8), pp.561-566.
- Herrington M, Kew, J., and Kew, P., 2014. Global Entrepreneurship Monitor South African Report. *GEM South Africa 2014 Report*. [Internet:<http://www.gemconsortium>].
- Hothersall, S. J., 2019. Epistemology and social work: Enhancing the integration of theory, practice and research through philosophical pragmatism. *European Journal of Social Work*, 22(5), pp.860-870.

- Hove, G., 2016. Small scale contractors in Africa's emerging markets: The case of South Africa.
- Howell, S., Lerner, J., Nanda, R. and Townsend, R. 2020. Financial distancing: How venture capital follows the economy down and curtails innovation. *Harvard Business School Working Paper*, pp.20- 115
- Hunter, A., & Brewer, J. D. 2015. Designing multimethod research. In *The Oxford handbook of multimethod and mixed methods research inquiry*. DOI: 10.1093/oxfordhb/9780199933624.013.13
- IMF., 2017. Uganda seventh review under the policy support instrument- Press release and staff report. *January 2017 IMF Country report no. 17/7*
- Institute of Business Administration., 2020. *Short notes on the economy during the COVID-19 crisis*. Karachi: Institute of Business Administration
- International Labour Organization., 2020. COVID19 and the world of work. Third edition updated estimates and analysis. *ILO Monitor*, pp.1–23.
- International Monetary Fund (IMF)., 2016. *IMF annual report*, viewed 19 March 2018, from [https://www.imf.org/external/pubs/ft/ar/2016/eng/pdf/ar16\\_eng.pdf](https://www.imf.org/external/pubs/ft/ar/2016/eng/pdf/ar16_eng.pdf).
- Irawan, A., 2020. Challenges and Opportunities for Small and Medium Enterprises in Eastern Indonesia in Facing the COVID-19 Pandemic and the New Normal Era. *TIJAB (The International Journal of Applied Business)*, 4(2), pp.79-89.
- Irshad, M., Ibrahim, M., and Mehdi, M., 2018. *Impact of human capital practices on the performance of small and medium enterprise's in Pakistan: Examining the Mediating Role of Innovation*.

- Jain, R., Budlender, J., Zizzamia, R. and Bassier, I., 2020. The labor market and poverty impacts of covid-19 in South Africa. *Working Paper Series, Number 264, Version 1*.
- James, W., 1907. Lecture II: What pragmatism means. In W. James, *Pragmatism: A new name for some old ways of thinking* (pp. 43–81). Longmans, Green and Co.
- Jansen A, Moses, M., Mujuta, S and Yu, D., 2015. Measurements and determinants of multifaceted poverty in South Africa. *Development Southern Africa* 32(2), pp.151-169. DOI: <https://doi.org/10.1080/0376835X.2014.984377>.
- Jili, N., Masuku, M. and Selepe, B., 2016) SMMEs promoting local economic development (LED) in Umlalazi Local Municipality, KwaZulu-Natal. *African Journal of Hospitality, Tourism and Leisure*, 6(1), pp.1-10
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26.
- Jongbo, O.C., 2014. The role of research design in a purpose driven enquiry. *Review of Public Administration and Management*, 400(3615), pp.1-8.
- Južnik Rotar, L., Kontošić Pamić, R. and Bojnec, Š., 2019. Contributions of small and medium enterprises to employment in the European Union countries. *Economic research-Ekonomska istraživanja*, 32(1), pp.3296-3308.
- Kamal, E.M. and Flanagan, R., 2014, April. Model of absorptive capacity and implementation of new technology for rural construction SMEs. In *Australasian Journal of Construction Economics and Building-Conference Series* (Vol. 2, No. 2, pp. 19-26).



- Kaplinsky, R., 1995. Capital intensity in South African manufacturing and unemployment, 1972–90. *World Development* 23 (2), pp.179–192.
- Kapunda, S.M., 2015. *Industrial economics and development: An African perspective*, Codestria, Dakar.
- Kaushik, V. and Walsh, C. A., 2019. Pragmatism as a research paradigm and its implications for social work research. *Social Sciences*, 8(9), pp.255-268
- Kersten, R., Harms, J., Liket, K. and Maas, K., 2017. Small firms, large impact? A systematic review of the SME finance. *World Development*, 97, pp.330-348, <https://doi.org/10.1016/j.worlddev.2017.04.012>.
- Khan, K.I., Niazi, A., Nasir, A., Hussain, M. and Khan, M.I., 2021. The effect of COVID-19 on the hospitality industry: The implication for open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), p.30.
- Khoso, A., and Noor, A. H. M., 2021. Migrant workers in Malaysia: covid-19's Impact on the Rights of their Children and Siblings in Pakistan. *The International Journal of Children's Rights*, 29(2), pp.475-495.
- Klasen, S. and Woolard, I., 2000. Surviving unemployment without state support: Unemployment and household formation in South Africa. *Paper presented at Annual Meeting of European Society for Population Economics*, pp.15-17
- Knieps, S., 2020. Will COVID-19 turn Germany's export-oriented economy into a weakness. Access at: <https://www.euractiv.com/section/economy-jobs/news/will-COVID-19-turn-germanys-export-oriented-economy-into-a-weakness>.

- Kollamparambil, U. and Oyenubi, A., 2021. Behavioural response to the Covid-19 pandemic in South Africa. *Plos one*, 16(4), p.0250269.
- Kongolo, M., 2010. Job creation versus job shedding and the role of SMEs in economic development. *African Journal of Business Management*, 4(11), pp.2288-2295.
- Kopacz, M. S., Ames, D. and Koenig, H. G., 2019. It's time to talk about physician burnout and moral injury. *The Lancet Psychiatry*, 6(11), pp.28-40
- Korankye, B., 2020. The Impact of Global Covid-19 Pandemic on Small and Medium Enterprises in Ghana. *International Journal of Management, Accounting and Economics*, 7(6), pp.320-341.
- Kretchmer, H., 2020. *How coronavirus has hit employment in G7 economies*. Retrieved from <https://www.weforum.org/agenda/2020/05/coronavirus-unemployment-jobs-work-imp>.
- Kumar, P., 2021. V-5 model of employee engagement during COVID-19 and post lockdown. *Vision*, 1(1), pp.1-15, 0972262920980878.
- Kwaning, C.O., Nyantakyi, K. and Kyereh, B., 2015. The challenges behind SMEs' access to debts financing in the Ghanaian financial market', *International Journal of Small Business and Entrepreneurship Research* 3(2), pp.16–30.
- Labaree, R., 2013. *Types of research design: organizing your Social Science research paper*.
- Laborda, J., Rivera-Torres, P., Salas-Fumas, V. and Suárez, C., 2021. Is there life beyond the Spanish government's aid to furloughed employees by COVID-19?. *PLOS ONE*, 16(6), p0253331.

- Lancet., 2019. Physician burnout: a global crisis. *The Lancet*, 6, pp.394-412, [https://doi.org/10.1016/s0140-6736\(19\)31573-9](https://doi.org/10.1016/s0140-6736(19)31573-9).
- Lee, K., Herold, D. and Yu, A., 2016. Small and medium enterprises and corporate social responsibility practice: A Swedish perspective. *Corporate Social Responsibility and Environmental Management*, 23(2), pp.88-99.
- Likert, R., 1932. A technique for the measurement of attitudes. *Archives of Psychology*, 22(140), pp.1–55.
- Lindsay, A., Neha, J., Mahajan, D., Maxwell, M. N. and Pandher, A. S., 2020. *Tracking the impact of coronavirus on US small businesses*. McKinsey & Company
- Longenecker, J.G., Petty, J.W., Hoy, F. and Palich, L.E., 2012. *Small Business Management, An entrepreneurial emphasis. 16th ed.* London: Thomson South Western
- Maksimov, V., Wang, S.L. and Luo, Y., 2017. Reducing poverty in the least developed countries: The role of small and medium enterprises. *Journal of World Business*, 52, pp.244–257
- Makwara, T., 2019. *Taking on the challenge: small, micro and medium enterprises (SMMEs) and socioeconomic development in South Africa*.
- Malhotra, N.K. and Birks, D.F. 2007. *Marketing research: An applied orientation*, London: Prentice Hall.
- Malik, K., Meki, M., Morduch, J., Ogden, T., Ogden, T. and Said, F. 2020. COVID-19 and the future of microfinance: Evidence and insights from Pakistan. *Oxford Review of Economic Policy, Forthcoming*, pp.1–43.

- Manzoor, F., Wei, L., Nurunnabi, M. and Abdul Subhan, Q., 2019. Role of SME in poverty alleviation in SAARC region via panel data analysis. *Sustainability*, 11(22), pp.6480-6490
- Mapfumo, W., 2015. *The use financial bootstrapping methods among small, medium and micro enterprises in the retail sector of the Buffalo City Municipality South Africa*. Master's dissertation, UFH, South Africa.
- Mark, S., Philip, L. and Adrian, T., 2009. *Research methods for business students*. Rotolito Lombarda.
- Martin, A.G. and Petersen, M., 2018. Poverty alleviation as an economic problem. *Cambridge Journal of Economics* 43(1), pp.205-221. DOI: <https://dx.doi.org/10.2139/ssrn.2924048>.
- Matotoka, M. D. and Odeku, K. O., 2021. Untangling discrimination in the private sector workplace in South Africa: Paving the way for Black African women progression to managerial positions. *International Journal of Discrimination and the Law*, 21(1), pp.47-71.
- Mazzarol, T., 2014. Research review: a review of the latest research in the field of small business and entrepreneurship. *Financial management in SMEs. Enterprise Research*, 21, pp.2-13, <https://doi.org/10.1080/13215906.2014.11082073>
- McKim, C. A., 2017. The value of mixed methods research: A mixed methods study. *Journal of Mixed Methods Research*, 11(2), pp.202-222.
- McKinsey & Company., 2020. How the Covid-19 crisis is affecting UK small and medium size enterprises. <https://www.mckinsey.com/industries/public-sector/our-insights/how-the-covid-19-crisis-is-affecting-uk-small-and-medium-size-enterprises>

- McKinsey., 2020a. How to rebuild and reimagine jobs amid the coronavirus crisis. <https://www.mckinsey.com/industries/public-sector/our-insights/how-to-rebuild-and-reimagine-jobs-amid-the-coronavirus-crisis> (accessed on 1 July 2020).
- McKinsey., 2020b. How German “Mittelstand” copes with COVID-19 challenges. <https://www.mckinsey.de/~ /media/mckinsey/locations/europe%20and%20middle%20east/deutschland/news/presse/2020/2020-05-07%20-%20mittelstandsumfrage/covid-19%20mittelstandsumfrage%20mckinsey%202020.ashx> (accessed on 1 July 2021).
- Meyer, B., Zill, A., Dilba, D., Gerlach, R. and Schumann, S., 2021. Employee psychological well-being during the COVID-19 pandemic in Germany: A longitudinal study of demands, resources, and exhaustion. *International Journal of Psychology*.
- Missioura, O. V., 2014. *Commitment, communication, and leadership determine the leader: A qualitative analysis businessperson characteristics practiced by SME and family business directors*. China-USA Business Review, 13, pp.115-130. Retrieved from <http://www.davidpublisher.org/>
- Mitchell, B., 2013. *The Role of networks in mobilising capital in different ethnic groups in South Africa a mixed embeddedness approach to entrepreneurship*, Barcelona: Doctoral Thesis Department of Business Economics Universitat Autònoma.
- Moazzem, K. G., and Halim, F. B., 2019. Job creation in the manufacturing sector as a strategy for sustainable economic growth in Bangladesh. In *Manufacturing and Jobs in South Asia* (pp. 15-50). Springer, Singapore.

- Mock, J., 2020. Psychological trauma is the next crisis for coronavirus health workers. *Scientific American, 1*, pp.1-8
- Moraka, N. V., and Jansen van Rensburg, M., 2015. Transformation in the South African mining industry – Looking beyond the employment equity scorecard. *The Journal of the Southern African Institute of Mining and Metallurgy*, 115, pp.669–678. <http://doi.org/10.17159/2411-9717/2015/v115n8a2>
- Morgan, D., 2014. Pragmatism as a paradigm for mixed methods research. *Integrating qualitative and quantitative methods: SAGE Publications, Inc*, pp.25-44.
- Mqaba, V., 2015. *The impact of government support on the growth and performance of cooperatives in the Eastern Cape province of South Africa*. Master's dissertation, UFH, South Africa.
- Msomi, T.S. and Olarewaju, O.M., 2021. Factors affecting small and medium enterprises' financial sustainability in South Africa. *African Journal of Inter/Multidisciplinary Studies*, 3(1), pp.103-117.
- Muda, S. and Rahman, M. R. C. A., 2016. Human capital in SMEs life cycle perspective. *Procedia Economics and Finance*, 35, pp.683-689.
- Mukherjee, M., 2017. A Review of research design. *International Journal of Advanced Engineering and Management*, 2(3), pp.56-59.
- Muller, P., Julius, J., Herr, D., Koch, L., Peycheva, V. and McKiernan, S., 2017. *Annual report on European SMEs (2016/2017)*. Luxembourg: European Commission.

- Muriithi, S., 2017. African small and medium enterprises (SMEs) contributions, challenges, and solutions. *European Journal of Research and Reflection in Management Sciences*, 5(1), 36-49
- Musitha, M.E. and Maloma, P.A., 2017. The Contribution of micro, small, and medium enterprises to job creation in the Limpopo province of South Africa: Prospects and constraints. *International Journal of Small and Medium Enterprises and Business Sustainability*, 2(4), pp.80-103
- Mutoko, W.R., 2015. Challenges of financing small, medium and microenterprises: The case of Botswana manufacturing sector', *Journal of Business and Management Dynamics* 5(1), pp.1–7. <https://doi.org/10.4102/jbmd.v5i1.17>World Bank, 2015, *GINI Index estimates*, viewed 27 June 2018, from <http://data.worldbank.org/indicator/SI.POV.GINI?page=1>.
- Mwaanga, C., Mulenga, J., Lubinda, M., Siame, M., Kaliba-Chishimba, K., Mulenga, M. C. and Kafula, C. S., 2021. COVID-19 Pandemic and Its Implications on Small and Medium Enterprises (SMEs) Operations in Zambia. *Journal of Business Administration Research*, 10(1), pp.1-32.
- Nagaya, N., 2017. SME impact on output growth, a case study of India. *Palma Journal*, 16(13), 11-170. Statistics South Africa, 2018. Poverty on the rise in South Africa. <http://www.statssa.gov.za/?p=10334> Accessed 18 June 2021.
- National Income Dynamics Study- Coronavirus Rapid Mobile Survey (NIDS-CRAM)., 2020. Wave 1, Version 1.0.0, Cape Town: Allan Gray Orbis Foundation [funding agency]. Cape Town: *Southern Africa Labour and Development Research Unit [implementer]*, 2020. Cape Town: DataFirst.

- Ncube M.S and Chimucheka T., 2019. The effect of managerial competencies on the performance of small and medium enterprises in Makana Municipality, South Africa. *African Journal of Hospitality, Tourism and Leisure* 8(5), pp.1-15.
- Ndofirepi, T. M. and Rambe, P., 2018. A qualitative approach to the entrepreneurial education and intentions nexus: A case of Zimbabwean polytechnic students. *The Southern African Journal of Entrepreneurship and Small Business Management*, 10(1), pp.1-14.
- Ndubisi, N. O., Zhai, X. A. and Lai, K. H., 2020. Small and medium manufacturing enterprises and Asia's sustainable economic development. *International Journal of Production Economics*, p.107971.
- Ngibe M & Lekhanya L.M., 2019. Critical factors influencing innovative leadership in attaining business innovation: A case of manufacturing SMEs in KwaZulu-Natal. *International Journal of Entrepreneurship* 23(2), pp.1- 20.
- Nguse, S. and Wassenaar, D., 2021. Mental health and COVID-19 in South Africa. *South African Journal of Psychology*, p.00812463211001543.
- Nhlapo, S., Nieuwenhuizen, C. and Ladzani, W., 2011. Government support and factors hindering small business survival in the Kroonstad area. *Journal of Public Administration*, 46(4), pp.1459-1478
- Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M. and Agha, R., 2020. The socio-economic implications of the coronavirus and COVID-19 pandemic: a review. *International journal of surgery*.



- Nwosu C.O., 2019. The relationship between employment and mental and physical health in South Africa. *Development Southern Africa*, 35, pp.145–162.
- Odeku, K. O., 2021. The impact of the Covid-19 pandemic on black-owned small and micro-businesses in South Africa. *Academy of Entrepreneurship Journal*, 27, pp.1-5.
- OECD, European Union, European Training Foundation and European Bank for Reconstruction and Development., 2020. *SME policy index: Eastern partner countries 2020*. OECD Publishing, European Union. <https://doi.org/10.1787/8b45614b-en>
- OECD., 2020b. Tackling coronavirus (COVID-19) Contributing to a global effort. <https://www.oecd.org/coronavirus/en/>.
- Okubo, T., 2020. Spread of COVID-19 and telework: Evidence from Japan, *COVID Economix* 32, <https://cepr.org/content/covid-economics-vetted-and-real-time-papers-0> (accessed on 1 July 2020).
- Omalaja, M.A. and Eruola, O.A., 2011. Strategic management theory: Concepts, analysis and critiques in relation to corporate competitive advantage from the resource-based philosophy. *Economic analysis*, 44(1-2), pp.59-77.
- Omar, A. R. C., Ishak, S. and Jusoh, M. A., 2020. The impact of Covid-19 movement control order on SMEs' businesses and survival strategies. *Geografia-Malaysian Journal of Society and Space*, 16(2), pp.90–103.
- O'Regan, N., Stainer, L. and Sims, M., 2010. Training in SMEs and its relationship to profitability. *International Journal of Human Resources Development and Management*, 10(2), pp.166-181.

- Organisation for Economic Co-operation and Development, 2021. *An Assessment of the Impact of COVID-19 on Job and Skills Demand Using Online Job Vacancy Data*. OECD Publishing.
- Oyewale, A., Adebayo, O. and Kehinde, O., 2020. Estimating the impact of COVID-19 on small and medium scale enterprise: *Evidence from Nigeria*, pp.1–19.
- Parrilli, M.D., Balavac, M. and Radicic, D., 2020. Business innovation modes and their impact on innovation outputs: Regional variations and the nature of innovation across EU regions. *Research Policy*, 49(8), p.104047.
- Peirce, C. S., 1878. How to make our ideas clear. *Popular Science Monthly* 12, pp.286-302.
- Pettinger, R., 2007. *Introduction to management*, Palgrave-McMillan, New York.  
PMCID:PMC2670850
- Philipps, A. and Mrowczynski, R., 2021. Getting more out of interviews. Understanding interviewees' accounts in relation to their frames of orientation. *Qualitative Research*, 21(1), pp.59-75.
- Pollard, M. S., Tucker, J. S. and Green, H. D., 2020. Changes in adult alcohol use and consequences during the COVID-19 pandemic in the US. *JAMA network open*, 3(9), pp.2022942
- Ponto, J. A., Ellington, L., Mellon, S. and Beck, S. L., 2010. Predictors of adjustment and growth in women with recurrent ovarian cancer. In *Oncology nursing forum* (Vol. 37, No. 3).
- Popa, I., Ștefan, S.C., Olariu, A.A., Popa, Ș.C. and Popa, C.F., 2022. Modelling the COVID-19 pandemic effects on employees' health and performance: a PLS-SEM mediation

- approach. *International Journal of Environmental Research and Public Health*, 19(3), p.1865.
- Posel, D., Oyenubi, A. and Kollamparambil, U., 2021. Job loss and mental health during the COVID-19 lockdown: Evidence from South Africa. *PloS one*, 16(3), p.0249352.
- Pretorius, M., Millard, S.M. and Kruger, M.E., 2005. Creativity, innovation and implementation: management experience, venture size, life cycle stage, race and gender as moderators, *South African Journal of Business Management*, 36(4), pp. 55-68.
- Prohorovs, A., & Beizitere, I., 2015. Trends, sources and amounts of financing for micro-enterprises in Latvia. *Procedia-social and Behavioral Sciences*, 213(66), pp.404–410. <https://doi.org/10.1016/j.sbspro.2015.11.558>.
- Qiu, J., Shen, B., Zhao, M., Wang, Z. and Xie, B., 2020. Xu YJGp. *A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations*, 33(2), p.e100213.
- Rahi, S., 2017. Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), pp.1-5.
- Rahman, A., Twyefur Rahman, M. and Belas, J., 2017. Determinants of SME finance: evidence from three Central European Countries. *Review of Economic Perspectives – Národohospodárský obzor*, 17(3), pp.263-285, <https://doi.org/10.1515/revecp-2017-0014>.

- Rahman, M.M., Tabash, M.I., Salamzadeh, A., Abduli, S. and Rahaman, M.S., 2022. Sampling techniques (probability) for quantitative social science researchers: a conceptual guidelines with examples. *Seeu Review*, 17(1), pp.42-51.
- Rajagopaul, A., Magwentshu, N. and Kalidas, S., 2020. How South African SMEs can survive and thrive post COVID-19. *Providing the right support to enable SME growth now and beyond the crisis*.
- Rajeevan, N.; Sulphey, M. and Rajasekar, S., 2015. The critical role of micro, small & medium enterprises in employment generation: An Indian experience. *Asian Soc. Sci*, 11, pp.258-275
- Ranchhod, V. and Daniels, R. C., 2021. Labour market dynamics in South Africa at the onset of the COVID-19 Pandemic. *South African Journal of Economics*, 89(1), pp.44-62.
- Rao, S. S., Toledo, O. and Metts, G., 2003. Electronic commerce development in small and medium sized enterprises: A stage model and its implications. *Business Process Management Journal*, 9, pp.11-32. doi:10.1108/14637150310461378
- Real Economy Bulletin., 2017. Special edition: the state of small business in South Africa. *TIPS Publication*, pp. 1-38.
- Regnault, A., Willgoss, T. and Barbic, S., 2018. Towards the use of mixed methods inquiry as best practice in health outcomes research. *Journal of patient-reported outcomes*, 2(1), pp.1-4.
- Rehman, A. A. and Alharthi, K., 2016. An introduction to research paradigms. *International Journal of Educational Investigations*, 3(8), pp.51-59.

- Rescher, N., 2000. Kant on the limits and prospects of philosophy—Kant, pragmatism, and the metaphysics of virtual reality. *Kant-Studien: Walter de Gruyter*.  
<https://doi.org/10.1515/kant.2000.91.3.283>
- Robins, C. S. and Eisen, K., 2017. Strategies for the effective use of NVivo in a large-scale study: Qualitative analysis and the repeal of Don't Ask, Don't Tell. *Qualitative Inquiry*, 23(10), pp.768-778.
- Robinson, J. and Kengatharan, N., 2020. Exploring the effect of Covid-19 on small and medium enterprises: Early evidence from Sri Lanka. *Journal of Applied Economics & Business Research*, 10(2), pp.115–124
- Robson, C. and McCartan, K., 2016. *Real world research (4th ed.)*. West Sussex: Wiley
- Rorty, R., 1999. *Philosophy and social hope*. New York: Penguin.
- Rubeena, S. and Naz, R., 2021. Impact of COVID-19 on employee engagement in 2020. *Journal of Management Research and Analysis*, 7(4), pp.137-141.
- Rudolph, C. W., Allan, B., Clark, M., Hertel, G., Hirschi, A., Kunze, F., Shockley, K., Shoss, M., Sonnentag, S. and Zacher, H., 2020. Pandemics: Implications for research and practice in industrial and organizational psychology. *Industrial and Organizational Psychology: Perspectives on Science and Practice*. <https://doi.org/10.31234/osf.io/k8us2>
- Rungani, E.C. and Potgieter, M., 2018. The impact of financial support on the success of small, medium and micro enterprises in the Eastern Cape Province. *Acta Commercii: Independent Research Journal in the Management Sciences* 18(1), pp.1-12.  
(DOI:<https://doi.org/10.4102/AC.V18I1.591>.)

- Saah, P., 2021. The impact of small and medium-sized enterprises on the economic development of South Africa. *Technium Soc. Sci. J.*, 24, p.549.
- Sani A, Thaheer A.S.M and Zain Z.M., 2018. Factors affecting small medium enterprises' (SMEs) decision to go international. *Asean Entrepreneurship Journal* 4(2), pp.1-10.
- Sarvari, H., Chan, D.W., Alaeos, A.K.F., Olawumi, T.O. and Aldaud, A.A.A., 2021. Critical success factors for managing construction small and medium-sized enterprises in developing countries of Middle East: Evidence from Iranian construction enterprises. *Journal of Building Engineering*, 43, p.103152.
- Schlosser, F., 2015. Identifying and differentiating key employees from owners and other employees in SMEs. *Journal of Small Business Management*, 53, pp.37-53. doi:10.1111/jsbm.12066
- Schober, P., Boer, C. and Schwarte, L.A., 2018. Correlation coefficients: appropriate use and interpretation. *Anesthesia & analgesia*, 126(5), pp.1763-1768.
- SEDA., 2018. *Small enterprise development agency SMME quarterly update 1st quarter 2018*. Small Enterprise Development Agency.
- SEDA.2019. SMME quarterly update 1st quarter 2018. Available at <http://www.seda.org.za/Publications/Publications/SMME%20Quarterly%202018-Q1.pdf> [Date of access: 12/03/2023].
- Segal, S. and Gerstel, D., 2020. *The global economic impacts of COVID-19, critical questions*. Center for Strategic and International Studies (CSIS). Retrieved from <https://www.csis.org/analysis>.

- Sekaran, U. and Bougie, R., 2019. *Research methods for business: A skill building approach*. John Wiley & Sons.
- Shafi, M., Liu, J. and Ren, W., 2020. Impact of COVID-19 pandemic on micro, small, and medium-sized Enterprises operating in Pakistan. *Research in Globalization*, 2, p.100018.
- Shah, S. F. H., Nazir, T., Zaman, K. and Shabir, M., 2013. Factors affecting the growth of enterprises: a survey of the literature from the perspective of small and medium sized enterprises. *Journal of Enterprises Transformation*, 3(2), pp.53–75. <https://doi.org/10.1080/19488289.2011.650282>.
- Sham, T. and Pang, I., 2014. China's SMEs development. *Monthly economic newsletter*.
- Sham, T., 2014. *China SMEs development*. OCBC Wing Hang Monthly Newsletter, September pp.1-4.
- Sharma, G., 2017. Pros and cons of different sampling techniques. *International Journal of Applied Research*, 3(7), pp.749-752.
- Shrestha, N., 2021. Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics*, 9(1), pp.4-11.
- Siddik, N.A., Kabiraj, S. and Joghee, S., 2017. Impacts of capital structure on performance of banks in a developing economy: Evidence from Bangladesh. *International Journal of Financial Studies* 5(13), pp.2–18. <https://doi.org/10.3390/ijfs5020013>
- Siedlecki, S.L., 2020. Understanding descriptive research designs and methods. *Clinical Nurse Specialist*, 34(1), pp.8-12.

- Singh, A. S., 2014. Conducting case study research in non-profit organisations. *Qualitative Market Research: An International Journal*, 17(1), pp.77-84. <https://doi.org/10.1108/QMR-04-2013-0024>
- Singh, S., Thomas, N. and Numbudiri, R., 2021. Knowledge sharing in times of a pandemic: An intergenerational learning approach. *Knowledge and Process Management*, 28(2), pp.153-164.
- Singleton, R. A. and Straits, B. C., 2012. Survey interviewing. *The SAGE handbook of interview research: The complexity of the craft*, pp.77-98.
- Smith, A., 2008. Constitutionalising Equality: The South African Experience. *International Journal of Discrimination and the Law*, 9(4), pp.201-249.
- Sok, P., Snell L, Lee W.J.T, and Sok, K.M., 2017. Linking entrepreneurial orientation and small service firm performance through marketing resources and marketing capability: A moderated mediation model. *Journal of Service Theory and Practice*, 27(1), pp.231-249
- Sonobe, T., Takeda, A., Yoshida, S. and Truong, H. T., 2021. *The Impacts of the Covid-19 pandemic on micro, small, and medium enterprises in Asia and their Digitalization Responses*.
- Sriharan, A., Ratnapalan, S., Tricco, A., Lupea, D., Ayala, A. P., Pang, H. and Lee, D. D., 2020. Occupational Stress, Burnout and Depression in Women in Healthcare during COVID-19 Pandemic: a rapid scoping review. *Frontiers in Global Women's Health*, 1, pp.20-26
- Statistics South Africa., 2017. *Quarterly Labour Force Survey: 2016 Quarter 1*. Microdataset. Statistics South Africa, Pretoria.



- StatsSA., 2020a. Business under lockdown: Pressure might be easing.  
<http://www.statssa.gov.za/?p=13396>.
- Sullivan A, and Sheffrin, D.M., 2003. *Economic principles in action*. Upper Saddle River, New Jersey: Pearson Prentice Hall.
- Susanty, A., Puspitasari, N.B., Bakhtiar, A. and Prasetya, F., 2022. Assessing the impact of the COVID-19 pandemic on small and medium-sized enterprises performance. *Frontiers in Psychology, 13*.
- Syed, M. H., Khan, S., Raza Rabbani, M., and Thalassinou, Y. E., 2020. An artificial intelligence and NLP based Islamic FinTech model combining Zakat and Qardh-Al-Hasan for countering the adverse impact of COVID 19 on SMEs and individuals. *International Journal of Economics and Business Administration, 8*(2), pp.351–364.
- Szczepańska-Woszczyna, K. and Kurowska-Pysz, J., 2016. Sustainable business development through leadership in SMEs. *Ekonomia i Zarządzanie, 8*(3), pp.57-69. (DOI:10.1515/emj-2016-0024.)
- Tayeh, B. A., Alaloul, W. S. and Muhaisen, W. B., 2019. Challenges facing small-sized construction firms in the gaza strip. *The Open Civil Engineering Journal, 13*(1), pp. 1-8.
- Teddlie, C. and Tashakkori, A., 2011. Mixed methods research. *The Sage handbook of qualitative research, 4*, pp285-300.
- Teddlie, C., and Tashakkori, A., 2009. *Foundations of mixed methods research*. Thousand Oaks, CA: SAGE

- Terziovski, M., 2010. Innovation practice and its performance implications in small and medium enterprises (SMEs) in the manufacturing sector: a resource-based view. *Strategic Management Journal*, 902, pp.892–902
- Thi Minh Ly, P., Tien Thanh, P., Duy, L.T., Nghi, C.N.P., Giao, N.D.P. and Nghi, T.M., 2022. Online knowledge sharing and creativity in the context of working from home during the COVID-19 pandemic. *VINE Journal of Information and Knowledge Management Systems*.
- Thom, B., 2007. Role of the simple, self-designed questionnaire in nursing research. *Journal of Pediatric Oncology Nursing*, 24(6), pp.350-355.
- Thompson Agyapong, G., Mmieh, F. and Mordi, C., 2018. Factors influencing the growth of SMEs: The case of Ghana. *Thunderbird International Business Review*, 60(4), pp.549–563.
- Thompson, H., 2013. Characteristics of organizational environment and perceived environmental Uncertainty. *Administrative Science Quarterly*, 17(3), pp.313-327
- Turyahebwa, A., Sunday, A. and Ssekajugo, D., 2013. Financial management practices and business performance of small and medium enterprises in western Uganda. *African Journal of Business Management*, 7(38), pp.3875-3885.
- Turyakira, P., Venter, E. and Smith, E., 2012. Corporate social responsibility for SMEs: A proposed hypothesised model. *African Journal of Business Ethics*, 6(1), pp.106-119
- UN Migration., 2020. Impact of Covid-19 on Small and Medium-Sized Enterprises in Iraq', (June). Available at: [https://reliefweb.int/sites/reliefweb.int/files/resources/IOM\\_Iraq\\_Impact\\_of\\_COVID-19\\_on\\_Small\\_and\\_Medium-Sized\\_Enterprises\\_in\\_Iraq.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/IOM_Iraq_Impact_of_COVID-19_on_Small_and_Medium-Sized_Enterprises_in_Iraq.pdf).

- United Nations Conference on Trade and Development., 2020. Global trade impact of the Coronavirus (Covid19) epidemic. <https://unctad.org/en/PublicationsLibrary/Ditcinf2020d1.Pdf?User=1653>.
- Unsworth, C. A., Pallant, J. F., Russell, K., Odell, M. and Coulson, M., 2011. Interrater reliability of the Road Law and Road Craft Test as part of the OT-DORA Battery for off-road driver assessment. *British Journal of Occupational Therapy*, 74(8), pp.394-398.
- Valaskova, K., Kliestik, T., Svabova, L. and Adamko, P., 2018. Financial risk measurement and prediction modelling for sustainable development of business entities using regression analysis. *Sustainability*, 10(7), pp.2144.
- Van Bavel, J. J., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M. and Willer, R., 2020. Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, 4, pp.460–471. <https://doi.org/10.1038/s41562-020-0884-z>
- van Staden, L.J., 2022. The influence of certain factors on South African Small and medium-sized enterprises towards export propensity. *Development Southern Africa*, 39(3), pp.457-469.
- Viinikainen, J., Heineck, G., Böckerman, P., Hintsanen, M., Raitakari, O. and Pehkonen, J., 2017. Born entrepreneurs? Adolescents' personality characteristics and entrepreneurship in adulthood. *Journal of Business Venturing Insights*, 8, pp.9–12.
- Virglerova, Z., Dobes, K. and Vojtovic, S., 2016. The perception of the states influence on its business environment in the SMEs from Czech Republic. *Administratie si Management Public*, 14(26), pp.78-96.

- Wadood, F., Akbar, F. and Ullah, I., 2021. The importance and essential steps of pilot testing in management studies: a quantitative survey results. *Journal of Contemporary Issues in Business and Government Vol, 27(5)*.
- Walton, N., 2016. How organizational climate and structure affect knowledge management. the social interaction perspective. *International Journal of Information Management, 27(2)*, pp.104-118
- Wanberg, C.R., Ali, A. and Csillag, B., 2020. The process and experience of looking for a job. *Annual Review of Organizational Psychology and Organizational Behavior, 7*, pp.315-337
- Wang, Q. Q., Kaelber, D. C., Xu, R. and Volkow, N. D., 2021. COVID-19 risk and outcomes in patients with substance use disorders: analyses from electronic health records in the United States. *Molecular psychiatry, 26(1)*, pp.30-39.
- Waweru, K. M., Pokhariyal, G. P. and Mwaura, M. F., 2012. Effect of human capital development on the performance of small and medium scale enterprises in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS) 6(1)*, pp.88-93
- Weller, S.C., Vickers, B., Bernard, H.R., Blackburn, A.M., Borgatti, S., Gravlee, C.C. and Johnson, J.C., 2018. Open-ended interview questions and saturation. *PloS one, 13(6)*, p.e0198606.
- Wickramasinghe NC, Steele EJ, Gorczynski RM., Temple R, Tokoro G, Wallis D.H. And Klyce B., 2020. Growing Evidence against Global Infection-Driven by Person-to-Person Transfer of COVID-19. *VirolCurr Res 4(1)*, pp.1-4.

- Wiklund, J. and Shepherd, D., 2003. Knowledge-based resources. Entrepreneurial orientation, and the performance of small and medium-sized business. *Strategic Management Journal*, 24, pp.1307–1314.
- Winarsih, Indriastuti, M. and Fuad, K., 2020. *Impact of covid-19 on digital transformation and sustainability in small and medium enterprises (SMEs): a conceptual framework*, *Advances in Intelligent Systems and Computing*. Springer International Publishing.
- Woldie, A., Hagshenas, H. and Thomas, B. C., 2017. *The qualitative relationship between banks and SMEs in Wales. Financial Entrepreneurship for Economic Growth in Emerging Nations*, pp.86-97
- World Health Organization., 2020. Alcohol does not protect against COVID-19; access should be restricted during lockdown. *Published April 14, 2020. Accessed August 27, 2020.* <https://www.euro.who.int/en/health-topics/diseaseprevention/alcohol-use/news/news/2020/04/alcohol-does-not-protect-against-covid-19-access-shouldbe-restricted-during-lockdown>
- World Investment Report., 2017. *Investment and the digital economy*, viewed 12 April 2018, from <https://unctad.org/en/PublicationsLibrary/wir2017en.pdf>.
- Worster, W. T., 2013. The inductive and deductive methods in customary international law analysis: traditional and modern approaches. *Geo. J. Int'l L.*, 45, pp.445-453
- Yang, M., He, P., Xu, X., Li, D., Wang, J., Wang, Y., Wang, B., Wang, W., Zhao, M., Lin, H. and Deng, M., 2021. Disrupted rhythms of life, work and entertainment and their associations with psychological impacts under the stress of the COVID-19 pandemic: a survey in 5854

Chinese people with different sociodemographic backgrounds. *PloS one*, 16(5), p.e0250770.

Zalaghi, H. and Khazaei, M., 2016. The role of deductive and inductive reasoning in accounting research and standard setting. *Asian Journal of Finance & Accounting*, 8(1), 23-37.

Zeegen, E. N., Yates, A. J. and Jevsevar, D. S. 2020. After the COVID-19 Pandemic: Returning to Normalcy or Returning to a New Normal? *Journal of Arthroplasty*, pp.1–5. <https://doi.org/10.1016/j.arth.2020.04.040>

## APPENDIX A: QUESTIONNAIRE



### Section A: Biographical Information

This part of the questionnaire contains questions on the demographic information of the participants.

Please indicate your selection with an X.

#### 1. Kindly indicate your gender

1	Male	
2	Female	
3	Other	

#### A2. Please indicate your age group

1	20-25 years	
2	26-30 years	
3	31-35 years	
4	36-40 years	
5	41-45 years	
6	46-50 years	
7	51-60 years	
8	61 years and above	

#### A3. Kindly indicate your race

1	African	
2	Indian	
3	Coloured	

4	White	
5	Other (please specify)	

**4. Please indicate your highest qualification**

1	Diploma	
2	Postgraduate Diploma	
3	Bachelor's Degree	
4	Honours/BTech	
5	Masters	
6	Doctorate	
7	Other (please specify)	

**5. Please indicate the category your organization belong to**

1	Micro	
2	Small	
3	Medium	
4	Other	

**6. Kindly indicate how long you have been working in your organisation**

1	< 2 years	
2	2-5 years	
3	6-10 years	
4	11-15 years	
5	16-20 years	
6	> 21 years	

**7. Kindly indicate the position you currently occupied in your organisation**

1	Employee	
---	----------	--



2	Senior employee	
3	Assistant managers	
4	Manager	
5	Other	

**Section B: Effect of COVID-19 Pandemic on the Financial Performance of SMEs in Construction Enterprises**

This is section of the questionnaire contains statements that require information about the impact of COVID-19 on financial performance of SMEs. Please on the scale of 1-5, indicate your agreement with each statement. The weight-scoring are: Strongly Disagree (SD) =1; Disagree (D) = 2; Neither Agree nor Disagree (NA/DA) = 3; Agree (A) = 4; and Strongly Agree (SA) = 5.

No	Statement	1		2	3	4	5
FP1	Revenue loss						
FP2	Limited spare financial resources						
FP3	Lack of cash reserves						
FP4	Financial distress.						
FP5	Limited access to bank loan/credit						
FP6	Negative growth sales						
FP7	Loss of sales						
FP8	Reduction in cash flow						
FP9	Bankruptcy						
FP10	Limited access to the stimulus package						
FP11	Decrease in demand						

**Section C: Impact of COVID-19 Pandemic on the Productivity of SMEs in Construction Enterprises**

This is section of the questionnaire contains questions on the impact of COVID-19 on productivity of SMEs. Please on the scale of 1-5, indicate your agreement with each statement. The weight-scoring are: Strongly Disagree (SD) =1; Disagree (D) = 2; Neither Agree nor Disagree (NA/DA) = 3; Agree (A) = 4; and Strongly Agree (SA) = 5.

No	Statement	1		2	3	4	5
P1	Disruption of the global supply chain						
P2	Reduction in production						
P3	Decreased in production inputs						
P4	Decrease in capacity use						
P5	Restriction in shipment of goods						
P6	Decrease in business operations						
P7	Unavailability of raw materials						

**Section D: Effects of the COVID-19 pandemic on employees in SMEs**

This is section of the questionnaire deals with questions on the impact of COVID-19 on employees in SMEs. Please on the scale of 1-5, indicate your agreement with each statement. The weight-scoring are: Strongly Disagree (SD) =1; Disagree (D) = 2; Neither Agree nor Disagree (NA/DA) = 3; Agree (A) = 4; and Strongly Agree (SA) = 5.

No	Statement	1		2	3	4	5
E1	Job loss						
E2	Loss of income						
E3	Unemployment						
E4	Lay off						
F5	Increase in stress						

E6	Increase in burnout						
E7	Increase in depression						
E8	Increase in anxiety						
E9	Addiction						

#### **Section D: Factors Influencing the Impact of COVID-19 in SME Sector**

This section of the questionnaire contains questions on the factors that impact of COVID-19 in the SME sector. Please on the scale of 1-5, indicate your agreement with each statement. The weight-scoring are: Strongly Disagree (SD) =1; Disagree (D) = 2; Neither Agree nor Disagree (NA/DA) = 3; Agree (A) = 4; and Strongly Agree (SA) = 5.

No	Statement	1		2	3	4	5
F1	Loss of human capital						
F2	Limited access to finance						
F3	Inadequate government support						
F4	Restrictive government regulations						
F5	Increase in costs						

#### **Section E: Strategies to Curb the Impact of the COVID-19 Pandemic on SMEs**

This section of the questionnaire contains questions on the strategies to help curb the impact of COVID-19 pandemic on SME . Please on the scale of 1-5, indicate your agreement with each statement. The weight-scoring are: Strongly Disagree (SD) =1; Disagree (D) = 2; Neither Agree nor Disagree (NA/DA) = 3; Agree (A) = 4; and Strongly Agree (SA) = 5.

No	Statement	1		2	3	4	5
S1	Encourage flexible organisation						
S2	Introduction of teleworking						
S4	Encourage teamwork						
S4	Adoption of new technologies						
S5	Encourage knowledge sharing among employees						
S6	Adopt flexible work arrangements						

S7	Adoption of remote working						
S8	Reward creative talent						
S9	Employment of highly skilled employees						
S10	Managerial and leadership skills						
S11	Opportunity for employee training and development						

## APPENDIX B: INTERVIEW PROTOCOL



**Research Title: Impact of COVID-19 Pandemic on small and medium enterprises within the construction industry in KwaZulu-Natal province, South Africa**

**Faculty of Engineering and the Built Environment**

**Department of Construction Management and Quantity Surveying**

**Durban University of Technology**

### **Section A: Biographical Information**

This part of the questionnaire contains questions on the demographic information of the participants. Please indicate your selection with an X.

#### **1. Kindly indicate your gender**

1	Male	
2	Female	
3	Other	

#### **A2. Please indicate your age group**

1	20-25 years	
2	26-30 years	
3	31-35 years	
4	36-40 years	
5	41-45 years	
6	46-50 years	
7	51-60 years	
8	61 years and above	

**A3. Kindly indicate your race**

1	African	
2	Indian	
3	Coloured	
4	White	
5	Other (please specify)	

**4. Please indicate your highest qualification**

1	Diploma	
2	Postgraduate Diploma	
3	Bachelor's Degree	
4	Honours/BTech	
5	Masters	
6	Doctorate	
7	Other (please specify)	

**5. Kindly indicate your organisation**

1	DlaminiNdlovu Consulting Engineers	
2	Escongwenibhb Consulting Engineers	
3	Vumesa Consulting	
4	Iserafi Trading Enterprise, Zamahlobo Trading Enterprise	
5	Esethu Trading Consulting	

**6. Please indicate the category your organization belong to**

1	Micro	
2	Small	

3	Medium	
4	Other	

**7. Kindly indicate how long you have been working in your organisation**

1	< 2 years	
2	2-5 years	
3	6-10 years	
4	11-15 years	
5	16-20 years	
6	> 21 years	

**8. Kindly indicate the position you currently occupied in your organisation**

1	Employee	
2	Manager	
3	Director	
4	Deputy CEO	
5	CEO	
6	Other (Please specify)	

**Section B: Effect of COVID-19 pandemic on the financial performance**

B1. Does the COVID-19 pandemic had any impact on your financial performance? Yes/No

B2. If yes, describe how does the COVID-19 impacted the financial performance of your organisation.

.....

.....

.....

**Section C: Impact of COVID-19 on the productivity**

C1. Does the COVID-19 pandemic impact productivity of the organisation? Yes/No

C2. If yes, describe how does COVID-19 pandemic productivity of the organisation?

.....  
.....  
.....

**Section D: Impact of COVID-19 on Employees**

D1. Does the COVID-19 pandemic impacted employees in your organisation? Yes/No

D2. If yes, describe how does the COVID-19 pandemic affect employees in the organisation.

.....  
.....  
.....

**Section E: Factors Influencing SMEs in Fighting the COVID-19 pandemic**

E1. Kindly identify and explain factors that impacted the ability of the organisation to mitigate the COVID-19 pandemic.

.....  
.....

**Section F: Strategies to Mitigate the Impact COVID-19 Pandemic**

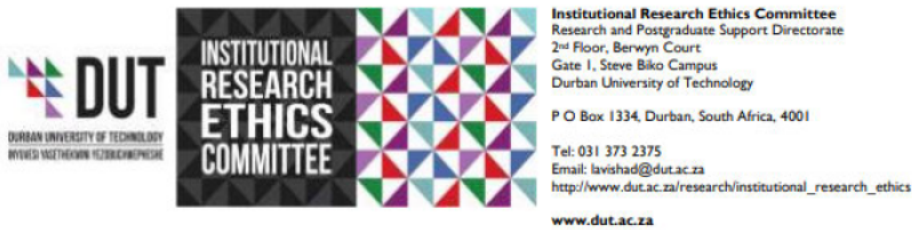
E1. Kindly identify and describe the strategies your organisation has adopted to help mitigate the impact of the COVID-19 pandemic

.....  
.....  
.....

**Thank you for the participation**



## APPENDX C: ETHICS APPROVAL LETTER



15 November 2022

Mr S N B Ndlovu  
35 Homestead Avenue  
Hillcrest

Dear Mr Ndlovu

**Impact of COVID-19 pandemic on small and medium enterprises within the construction industry in KwaZulu-Natal province, South Africa**  
**Ethics Clearance Number: IREC 100/22**

The Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the DUT-IREC acknowledges receipt of your gatekeeper permission letters.

Please note that **FULL APPROVAL** is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the DUT-IREC according to the DUT-IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the DUT-IREC as outlined in the DUT-IREC SOP's.

Yours Sincerely

\_\_\_\_\_  
Professor J K Adam  
Chairperson: DUT-IREC

## APPENDIX D: TURNITIN REPORT

### Last Turnitin

#### ORIGINALITY REPORT

9%

SIMILARITY INDEX

8%

INTERNET SOURCES

5%

PUBLICATIONS

4%

STUDENT PAPERS

#### PRIMARY SOURCES

1

[www.africaportal.org](http://www.africaportal.org)

Internet Source

1%

2

[asocsa.org](http://asocsa.org)

Internet Source

1%

3

[researchspace.ukzn.ac.za](http://researchspace.ukzn.ac.za)

Internet Source

1%

4

[link.springer.com](http://link.springer.com)

Internet Source

1%

5

Submitted to Caleb University

Student Paper

1%