SME STRATEGIC MANAGEMENT PRACTICES DURING THE COVID-19 PANDEMIC IN ZAMBIA: AN EMPIRICAL TEST OF THE THREAT RIGIDITY HYPOTHESIS

BY

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A Dissertation submitted to the University of Zambia in partial fulfilment of the requirements for the award of the Degree of Master of Business Administration in General

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DECLARATION

I, **Belinda Miyanda Muyuni**, do hereby declare that this work is my original work achieved through personal reading and research. This work has never been submitted to the University of Zambia or any other Universities. All sources of data used and literature on related works previously done by others, used in the production of this Dissertation have been duly acknowledged. If any omission has been made, it is not by choice but by error.

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APPROVAL

This Dissertation by **Belinda Miyanda Muyuni** is approved as a partial fulfilment of the requirements for the award of the Degree of Master of Business Administration in General.

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ABSTRACT

The study undertook to establish the strategic management practices adopted by Zambian SMEs during the Covid-19 pandemic and how they affected their performance. The study was anchored on Threat Rigidity and Failure-Induced Change theories. To help with meeting the foregoing objective, a pragmatic research approach which permits the use of mixed methods research design was adopted. With quantitative data being of primary focus, it successfully collected data from 333 SMEs who had been in operation for at least 4 years at the time of the survey. With data on strategic management practices and business performance collected using a Likert scale questionnaire, they were initially subjected to Exploratory Factor Analysis (EFA). EFA enabled the computation of factor scores, which are composite indices that represented the concepts of interest in as far as variable operationalization was concerned. The results show that surveyed SMEs adopted defensive strategic management practices in their attempt to navigate through the challenges that were presented by the Covid-19 pandemic. The extent to which surveyed SMEs were defensive was, however, moderate. On further investigating whether SMEs were justified in their preferences for execution of defensive strategic management actions as far as performance was concerned, the study found mixed results. Particularly, those who chose to scale down their operations were found to have performed better than their counterparts who did not. On the contrary, those that decided to restrict their scope of information search and processing had poorer performance outcomes than those that opted to do the opposite. On the basis of the foregoing, the study recommends a mix of offensive and defensive strategic managements practices when SMEs are facing a crisis environment for purposes of building resilience. In addition to only applying to the SMEs who participated in the study, the findings may not necessarily be time invariant.

Keywords: SMEs, Threat Rigidity Hypothesis, Strategic Management, Covid-19 Pandemic, Zambia

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DEDICATION

To God Almighty the author of Life who has been my strength throughout the entire process of this work. To my parents who gave me a platform and imparted to me the value of education. To my husband, Kambani Kebby Mtonga, my children Rhema Tibalenge Mtonga and Asher Daudi Mtonga, thank you for your invaluable support and cheering me on throughout this journey.

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LIST OF ACRONYMS

ANOVA	Analysis of Variance
CDC	Center for Disease Control and Prevention
CUTS	Consumer Unity and Trust Society
EFA	Exploratory Factor Analysis
FSDZ	Financial Sector Deepening Zambia
GDP	Gross Domestic Product
ILO	International Labour Organization
IMF	International Monetary Fund
KMO	Kaiser-Meyer-Olkin
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary Least Squares
PACRA	Patents and Companies Registration Agency
PCA	Principal Component Analysis
SMEs	Small and Medium Enterprises
SPSS	Statistical Package for the Social Sciences
ZMW	Zambian Kwacha

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter gives preliminary motivation of the research by initially providing the background to the study with some historical and statistical context. This is followed by the statement of the problem, the objectives of the study as well as associated research questions. It then covers boundaries of the study in terms of the scope, the significance of its undertaking and providing guidance on how the rest of the paper flows as regards the subsequent chapters. It concludes by giving a summary of the chapter.

1.2 Background

The outbreak of the Covid-19 pandemic in December 2019 was a concerning crisis in terms of both health and economic activity. On the health front, data from Johns Hopkins University show that nearly 7 million people had died from the disease as at early October 2023 at the time that cumulative global cases stood at over 676 million. Economically, the effects of the pandemic saw the global economy shrink by 3.3% in 2020 according to data from the IMF (IMF, 2021) in a way that reflected stringent containment measures instituted by different countries and faltering consumer demand.

Although the negative economic effects of the pandemic were broad-based at firm level, recent studies have revealed that these pains were more severe at Small and Medium Enterprises (SMEs) than at their larger counterparts (OECD, 2020; ILO, 2020; ICA, 2020). Disproportionate effects suffered by SMEs during crises have been to linked their navigation incapacitation owing to the liability of smallness and insufficient resources to do so (Miocevic, 2021). It is for this reason that many governments deliberately instituted (and continue to do so) interventions targeted at alleviating some of the pains suffered by this category of business establishments (Mason, 2020).

In Zambia, SMEs dominate the business world accounting for 97%, 88% and around 70% of the countries business enterprises, employment and the country's Gross Domestic Product (GDP), respectively (International Trade Center, 2019; CUTS, 2020). Barely five months after Zambia recorded the first Covid-19 case on March 18 and the government announcement a series of

containment measures, the impact of the pandemic on SMEs in Zambia showed up in form of dwindling customer numbers (reported by 71% of polled SMEs), failure to access operational funding from lenders (73%) as well as inability to afford inputs (49%) (FSDZ, 2020). This was a manifestation of the severity of the pandemic effects at local (domestic) level.

The foregoing notwithstanding, and across different SMEs, economic consequences of the Covid-19 pandemic on SMEs have been noted to be different depending on how they reacted to these challenging times (Lim, et al., 2020). In past crises as well as the lingering Covid-19 pandemic, those that have been able to suffer minimal business disruptions or indeed come out of such crises victorious have been associated with their ability to build business resilience in a crisis environment (Gulati, et al., 2010; Tang, et al., 2012; OECD, 2020; Stephan, et al., 2021).

While studies on resilience date as far back as 1970s during when Holling (1973) published what is considered as the first scholarly paper on the concept, those that focus on the SMEs have only gained greater traction in the aftermath of 2007-2009 financial crisis (Saad, et al., 2021). To a large extent, this has been the case owing to a realization that findings on business resilience generated through studying large corporate entities are sometimes not relevant and, therefore, cannot be directly applicable to SMEs (Ates & Bititci, 2011).

At business level, resilience has been defined differently by different scholars but it generally refers to capacity to adapt and cope with an uncertain and challenging environment (Huang, et al., 2020). For SMEs, Branicki et al. (2018) notes that resilience entails manifestation of the enterprise's capacity and ability to overcome external pressures in a way that ensures continuity and survival of businesses while also carrying out business renewal and reorientation. Among business entities that have been able to build resilience during crises, studies have shown that the key pathways are organizational innovativeness (Diedrich, et al., 2022; Heredia, et al., 2022), employee creativity (Okpara, 2007; Alias, et al., 2019; ILO, 2021), operational/financial flexibility (Hirt, et al., 2019), organizational culture (Khanzad & Gooyabadi, 2021) as well as enterprise owner's background characteristics that include such variables as cultural history, lifestyle, gender as well as age (Biggs, et al., 2012; Saad, et al., 2021).

Irrespective of the size of the business enterprise (large corporate of SME), literature on building business resilience in crisis time suggests consensus that strategic management practices play a significant and crucial role (James & Wooten, 2005; Campbell & Sinclair, 2009; Boin & Van

Eeten, 2013; Muñoz, et al., 2018; Khanzad & Gooyabadi, 2021). For example, James and Wooten (2005) contend that it is the mishandling of crises through inappropriate strategic management practices, and not the crises themselves, that generate most severe adverse outcomes for business entities. Relatedly, Campbell and Sinclair (2009) view strategic management in a crisis as a type of response which aims at phenomena definition of a crisis while also creating adequate preconditions for appropriately-timed prevention and overcoming of the associated problems. In the case of SMEs, and while they tend to be disadvantaged in terms of their financial capacity and market positioning, appropriate management strategies tend to work better for them as they leverage on agility, quick adaptability and innovativeness that is associated with smallness (Khanzad & Gooyabadi, 2021).

1.3 Problem Statement

It has been noted in the foregoing section that, like any other crises, the Covid-19 pandemic has had (and continues to have) devastating outcomes especially for SMEs. Even so, previous literature has shown that others have been able to use certain strategic management practices to not only build business resilience (Gulati, et al., 2010; Tang, et al., 2012; OECD, 2020; Stephan, et al., 2021) but also to identify opportunities inherent within crisis environments that have enabled them to even outdo their pre-crisis performance metrics (Doern, 2016; Facebook, 2021). Speaking to the latter, Facebook (2021) shows that the proportion of SMEs that reported having recorded higher sales figures in October 2020 compared to the same month in 2019 stood at an average of 20% globally and that, regionally, the proportions were higher in Sub-Saharan Africa, North America, Latin America as well as East Asia and Pacific.

Thus far, strategic management practices that are offensive towards the crisis such as business model adaption, increased spending on innovation and employee skill development as well as pivoting have been noted to produce better results in terms of building resilience than those that are defensive (Gulati, et al., 2010; Osiyevskyy, et al., 2020; Klyver & Nielsena, 2021). Paradoxically, most businesses tend to be defensive when confronted with a crisis by relying on past experiences in terms of what has worked before as well as scaling down on innovative and creative activities (Coyne & Coyne, 2008; Gulati, et al., 2010; Lim, et al., 2020; Rodrigues, et al., 2021; Govindarajan, et al., 2021) and such a reaction to crises is generally known as threat rigidity.

While there is temptation to generalize that threat rigidity is a phenomenon that cuts across crises, the nature of one created by the ongoing Covid-19 has never been experienced by existing SMEs today. SME-centered studies that have been conducted so far in this Covid-19 era have mainly focused on the negative effects of the pandemic as well as policies designed by national governments to cushion the impact (Mason, 2020; Miocevic, 2021). As such, questions of what strategic management practices these business entities adopted as well as their nature (offensive or defensive) remain unclear from an empirical perspective especially in the case of Zambia.

1.4 Aim of the Study

The aim of the study is to establish the strategic management practices adopted by Zambian SMEs during the Covid-19 pandemic and how they affected their performance.

1.5 Research Objectives

Specifically, the following are the objectives that the study intends to achieve.

i. To establish what strategic management practices that SMEs in Zambia adopted in order to navigate challenges associated with the Covid-19 pandemic.
ii. To ascertain the extent to which SMEs' strategic management reactions were offensive or defensive towards the Covid-19 pandemic.
iii. To state how strategic management practices adopted by Zambian SMEs during the Covid-19 pandemic affected their performance.

1.6 Research Questions

To achieve the above foregoing objectives, the following are the research questions to which answers are to be sought.

i. What strategic management practices did SMEs in Zambia adopt in order to navigate challenges associated with the Covid-19 pandemic?
ii. To what extent were SMEs' strategic management reactions towards the Covid-19 pandemic offensive or defensive?
iii. What effect did strategic management practices adopted by Zambian SMEs during the Covid-19 pandemic have on their performance?

1.7 Scope of the Study

As far as the scope is concerned, the study focused on retail sector SMEs found in Lusaka province of Zambia regardless of whether they are formal (registered the Patents and Companies Registration Agency - PACRA) or not. Further, and for purposes of benchmarking performance during the Covid-19 pandemic on that achieved before the crisis, the study will only consider firms which were operational even before the onset of the Covid-19 pandemic.

In addition to being major labour force employers and leading contributors to the country's GDP, the study's bias towards SMEs was based on the prior empirical observation that they tend to be disproportionately affected by crises.

1.8 Significance of the Study

It is envisaged that the results to be generated this study will be beneficial at two levels of the SME landscape in Zambia and beyond. First, and for SMEs, evidence from this study will help in generating insights that will shed light on candidate crisis reactions that that have potential to enable them build resilience and which ones to avoid. Second empirical evidence to be generated in this study will be informative to policy makers to create an SMEs business landscape that encourages utilization of strategic management practices for purposes of ensuring business survival and subsequent growth in challenging times.

1.9 Organization of the Dissertation

With the introduction of the study covered in the current chapter, the rest of the study is organized as follows: chapter two provides a combination of empirical and theoretical literature covering prior studies that have been conducted on the topic as well as reviewing theories that related to SME strategic management practices during crises. The methodology, which presents the exact techniques to be employed in order to meet the study's objectives is given in chapter three while outcomes from the implementation of the methodology is given in chapter four which contains the presentation and analysis of results. Before offering the conclusion and recommendations in chapter six, results are first discussed in chapter five.

1.10 Chapter Summary

The chapter provided the background to the study by way of offering the historical context on the subject matter. It also covered statement of the problem, the objectives of the study, associated

research questions, boundaries of the study in terms of the scope and the significance of its undertaking. It concluded by providing guidance on how the rest of the paper flows as regards the subsequent chapters. In the chapter that follows, the study gives a review of literature with particular focus on empirical study related to the topic at hand.

CHAPTER 2

EMPIRICAL LITERATURE REVIEW

2.1 Introduction

With the previous chapter having covered the background of the study, the problem to be solved and the associated objectives set to be met, the current chapter gives the empirical literature review. Particularly, the chapter focuses on studies that have looked at how businesses behave in the midst of a crisis environment as well as how these those actions affect their performance.

2.2 Definition of SMEs, their Role in the Economy and Challenges they Face

There is no standard definition for SMEs across different national jurisdictions and sometimes they are called other such names as Small and Medium Businesses (SMBs) as well as Micro, Small, and Medium Enterprises (MSMEs). By and large, the classification of a business entity as an SMEs in different countries depends on a number of metrics. Quantitatively, the widely used metrics in defining SMEs are thresholds on the number of employees, sales revenue and the value of assets/size of the balance sheet (Berisha & Pula, 2015). Of the three that have been stated, a threshold on the number of employees is the widely used quantitative definition of SMEs (Hatten, 2011).

For example, and using the metric of the number of employees, a business establishment is considered to be an SME if it employs less than 500 workers in the US and less than 250 among EU member states (Ardic, et al., 2011). In emerging markets and developing economies (EMDEs), the quantitative threshold in terms of staffing levels is significantly lower. It is less than 100 in Brazil, Ghana as well as Nicaragua and indeed less than 50 in such countries as Zambia, Malawi, Egypt and Pakistan (Gibson & van der Vaart, 2008; Ardic, et al., 2011). In terms of annual turnover, the number can be as low as $ 49, 543 (in Zambia) or as high as $ 73,500,000 in the case of Netherlands (Ardic, et al., 2011).

Despite the quantitative definition being the most adopted approach in literature (Berisha & Pula, 2015), others have also defined SMEs with a qualitative lens. Some of the key qualitative dimensions that have previously been used include ‘personal principle’ and ‘unity of leadership

and capital' (Loecher, 2000). Under personal principle, the firm manager or owner performs a central role in the business decision-making processes and maintains direct contact with employees, customers and suppliers. Meanwhile, the principle of unity of leadership and capital implies that the business manager and proprietor are one and the same person. As such, and in addition to assuming leadership responsibilities, the manager-proprietor takes up all or at least some of the liability risks that may arise of business operations (ibid).

Globally, SMEs have widely been viewed as playing a crucial role in driving economic development. Small as they are, the influence of SMEs in various national economies stems from their large number. World over, they account for 90% of all businesses (Tewari, et al., 2013). In view of the foregoing, SMEs are reported to be employing about 70% of the global workforce and formal SMEs alone contribute up to 40% and 50% of GDP in emerging markets and developed countries, respectively (Ayyagari, et al., 2007; IFC, 2013; ILO, 2019). Given high levels of SME informality in developing countries, the role of SMEs is significantly higher than widely reported.

The foregoing importance in national economies notwithstanding, the SME sector faces a number of challenges in comparison to their large counterparts (Murithi, 2017). These have widely been documented by different scholars who have undertaken empirical works on SMEs. Some of the challenges they face have been emerging in coincidence with changes in the environment of their operation. The ones that have largely themed literature on SME challenges have included intense competition, failure to rapidly adapt to continuously evolving market demands, limited access to financial products such as credit lines, technological change, and capacity constraints relating to knowledge, innovation, and creativity (Buraiki & Khan, 2018; Prasana, et al., 2019; Islam, et al., 2020; Ulvenblad & Barth, 2021).

SMEs do not only compete with their many local counterparties but also with larger entities but also with international businesses in the face of heightened globalization (Maarof & Mahmud, 2016). Lack of collateral, poor record keeping, discriminatory credit pricing and lack of proper procedural understanding are among the factors that have been cited to be impeding SMEs' access to credit (Osano & Languitone, 2016; Chilembo, 2021; Beck, et al., 2005). At the same time, their capacity constraints partly explain the inability to speedily appeal to ever changing consumer preferences.

Even among themselves, challenges are said to be more pronounced in some regional economic groupings than others as well as between entities owned by proprietors of different genders. Regarding the former, over 50% of SMEs in developing countries are reported to be unserved or underserved by the formal financial sector while the comparable statistic for those in developed countries stands at around 16% (IFC, 2013). At the same time, and globally, the percentage of adult females who reported having accessed credit for business purposes stood lower at 5% in 2017 compared to 8% for their male counterparts.

2.3 Impact of Crises on SMEs

In addition to the generic challenges highlighted above and given their structural configurations, SMEs are affected in a special way during crises. In the business world, a crisis is generally defined as an event with a low likelihood of occurrence but with a high impact which is capable of threatening the viability (or the existence) of an established business entity (Pearson & Clair, 1998). The occurrence of a crisis can broadly be classified into categories of sudden and smoldering. A crisis is sudden if it happens quickly and unexpectedly while a smoldering crisis is one which starts slowly before intensifying (Maier, et al., 2022). Although not all crises are the same, there is a general agreement among researchers that they carry three characteristics of being surprising, threatening and requiring immediate response from business executives (Williams et al., 2017).

In an event of a crisis, there is general agreement in existing literature that all business of different sizes get to be affected negatively especially at the onset. However, and as far as the degree of the effect is concerned, the size of the entity matter. Particularly, SMEs are reported to suffer disproportionately more than their large counterparts (Adian, et al., 2020). This tends to be true regardless of whether the crisis is economic, environmental, geopolitical, societal (pandemics fall in this category) or technological in nature (Gasbarro, et al., 2018; Asgary, et al., 2020; Kuo, et al., 2008). For example, studies have shown that SMEs record large revenue declines and employment losses than larger firms and, as such, they account for the largest share of the economic downturn in times of the crises (OECD, 2020; ILO, 2020; ICA, 2020).

There is a range of factors that have been advanced for the foregoing observation. Limited capabilities to navigate through hard times on account of inadequate financial resources, high

dependence on a few number of customers as well as shortcomings in form of technological, managerial and human resource capabilities take the blame for the disproportional effects against SMEs (Bourletidis & Triantafyllopoulos, 2014; Morgan, et al., 2020; Miocevic, 2021). Besides, and given that the foregoing also implies heightened credit risks, SMEs also face secondary factors such as inability to access short term financing from lenders (OECD, 2009) thereby exacerbating the negative effect of crises.

As regards health-related crises such as one under study in this paper, there are a number of global and regional pandemics that have occurred such as the Black Death (1347-1351), the Spanish Flu (1918-1920), Severe Acute Respiratory Syndrome (SARS of 2002-2003) and the Swine Flu (2009-2010). However, there is extremely limited literature on how these pandemics affected SMEs (Turner & Akinremi, 2020). Those that attempted to count the costs of such events concentrated on wider demographic/macroeconomic variables such as associated mortality and Gross Domestic Product (Garrett, 2007; Keogh-Brown & Smith, 2008).

The effect of the Covid-19 pandemic on SMEs has received increasing attention from different scholars all over the world. The effects of the pandemic on SMEs have come in form of declining demand or sales (UNCTAD, 2022; OECD, 2020), closure of business operations (Aga & Maemir, 2021; Dladla, 2021), inadequate access raw materials and other inputs owing to supply chain disruptions (Turner & Akinremi, 2020), failure to access import and export markets (Jandoc, et al., 2020) and labour shortages (Dai, et al., 2020).

The foregoing effects are reported to have been worse among SMEs found in developing countries such as those in Africa. For example, and based on data from more than 25,000 enterprises from over 50 countries, the proportion of SMEs that reported having experienced a fall in sales revenue during the first wave of the pandemic in the Middle East and North Africa (MENA) stood at around 70% compared to less than 65% for Europe and North America (Facebook; OECD; World Bank, 2020). Based on data from 38 African countries (8 of them are from Sub-Saharan Africa and they comprise Chad, Guinea, Mozambique, Niger, Somalia, Togo, Zambia and Zimbabwe), the comparable statistic for SMEs in SSA is high at nearly 90% (Aga & Maemir, 2021). The authors cite the feature of underdevelopment as the potential explanation behind the deeper effects of the Covid-19 pandemic among SSA SMEs.

2.4 SMEs' Strategic Management Responses to Crises

Notwithstanding the disproportionate effects of crises on SMEs, they do devise a range of copying mechanisms or responses. Primarily, the responses to a crisis by businesses around the globe tend to be guided by their crisis management strategies. To a large extent, crisis management strategies are premised on precepts of overcoming the effects, recovering from the effects and building capacities that enable exploitation of opportunities that help navigate the hurdles (Coutu, 2002; Lengnick-Hall et al., 2011).

Despite the effects of crises tending to be disproportional against SMEs, the reaction tends to be similar regardless of the size of the company. That is, most businesses tend to be defensive when confronted with a crisis by relying on past experiences in terms of what has worked before as well as scaling down on innovative and creative activities (Coyne & Coyne, 2008; Gulati, et al., 2010; Lim, et al., 2020; Rodrigues, et al., 2021; Govindarajan, et al., 2021; Kamphuis, et al., 2012).

Considering that crises usually create unprecedented unpredictability in so far as the future path of the business environment is concerned (Brown & Rocha, 2020), the defensive reaction that many business entities pursue is preferred because it largely entails preserving the value of business and thus avoiding further losses (Klyver & Nielsena, 2021). From a psychological perspective, being defensive finds merit in the fact that individuals' priority when hit by a crisis is basic safety and survival (CDC, 2019) and, as such, this applies to decisions they make on behalf of organizations they operate.

Since the decision of how firms respond to a crisis depends on the business executives who may have different cognitive orientations, and that humans are naturally risk averse, most businesses tend to be defensive rather than offensive (Coyne & Coyne, 2008; Gulati et al., 2010; Lim et al., 2020; Rodrigues et al., 2021; Govindarajan et al., 2021). Focusing on the behavior of SMEs (or rather mid-sized firms) operating in highly exposed sectors during the 2008/2009 financial crisis around the globe, Govindarajan et al. (2021) note that majority of them tend to shrink spending on such discretionary items as R&D, employee skills development and advertising.

During the Covid-19 pandemic crisis, SMEs adopted a range of strategic management responses for purposes of navigating the associated choppy waters. First, there are a number of studies reporting that SMEs resorted to laying off workers (Kalidas, et al., 2020; Aidoo, et al., 2021; Aga

& Maemir, 2021). Rather than laying off workers completely, others pursued a less stringent option of reducing salaries for their employees. In South Africa, the percentage of formal and informal SMEs who reported having reduced the wages of their workers as a coping strategy during the early days of the pandemic stood at 63% and 53%, respectively (UNDP, 2021). Considering that SMEs tend to employ workers without the signing of formalized contractual agreement, these strategies were easy to execute with little to no financial consequences (ibid).

Besides, some SMEs also opted to voluntarily and temporarily suspend operations as they waited for the eventual path of the pandemic (Mukherjee, et al., 2023). Considering the the majority of SMEs experienced deepened reductions in their revenues, the foregoing measures could have been pursued for purposes of cutting down costs thereby leading to preservation of business value.

Outside altering the operational scale of the businesses, other strategic management reactions bordered on the leadership approach. In another study by Garretsen et al. (2022) involving 27,000 business managers from 48 countries and 32 sectors for the period January 2019 to December 2020 reveals that during the Covid-19 period, business leaders became more directive in their management approach thereby reducing on the participative approach.

A study which finds related results to the preceding was conducted by Kamphuis, et al. (2012) with a view to examining the effects of physical threat on team processes during complex task performance. The study involved a pool of volunteers at an unnamed research institute who were grouped into 27 three-member teams. Without involving the study of relationships but rather the difference in behavior between two teams (one subjected to threats while another not subjected to threats), the key variables of the study included information processing, leadership, communication, coordination, supporting behavior and team performance.

Preceded by exploratory factor analysis (given that the variables where described by statements measures on a 7-point Likert scale), the study made use of the independent samples t tests. The study finds that teams that were subjected to physical threat experienced restrictions in information processing, had more controlling leadership, engaged in less group discussions, and also exhibited a reduction in coordinating and supporting behavior.

In further support to the above, Kreiser et al. (2020) did an investigation of entrepreneurial orientation and environmental hostility with data collected from a total of 6481 business houses

from the United States of America (USA). Theoretically, the study was informed by theories of Threat Rigidity Theory, Environmental Hostility Theory and Entrepreneurial Orientation Theory. Their Within-Between Multilevel Model (WB-MEM) had entrepreneurial orientation as the dependent variable as well as environmental hostility and recoverable slack as independent variables of interest. The findings of this study indicate that firms quickly pull back from employing entrepreneurial behaviors as the external environment becomes more hostile thereby supporting the predictions of the Threat Rigidity Theory.

Of course, the foregoing does not imply that all business entities respond defensively as some choose to face crises head on with a view of identifying opportunities in the thicket of associated challenges (Teece, 2007; Alessandri, et al., 2014; Saebi, et al., 2017; Shi, et al., 2017; Stephan, et al., 2021). For example, and in a study involving 5,206 SMEs from 23 countries, Stephan et al. (2021) notes that 39.4% of these business enterprises reacted to the Covid-19 pandemic offensively and were able to identify opportunities housed within the pandemic woes. This is likely to be the case if the business entity has excess financial resources to fund activities associated with offensive strategies (Alessandri, et al., 2014; Shi, et al., 2017) and the management team is naturally exploring of opportunities even in good times (Teece, 2007).

To exploit the identified opportunities, a number of diversified their product offering to such medical supplies as face masks and alcohol-based hand sanitizers (Tembo, 2020); as well as leveraging technology in not only achieving hybrid selling and delivery channels but also enabling teleworking (Bettiol, et al., 2021; LaBerge, et al., 2020). Speaking of the latter, and in show of the benefits, increased digitalization was found to lead to reduced likelihood of experiencing a fall in sales volumes (Facebook; OECD; World Bank, 2020), increased the likelihood of selling new products and reaching out to new customers (Deloitte, 2020) and improved customer relationships and agility (OECD, 2020). Although it is the pandemic that pushed firms to digitalize and therefore build business resilience, the gains associated with different initiatives that businesses adopted are set to outlive Covid-19 given that they have devoted a significant amount of resources in these pursuits.

The characteristics of alertness, creativity, and innovativeness are typically at the core of the empirical literature on the factors that influence organizations' or entrepreneurs' ability to identify opportunities within a crisis environment (Kuckertz et al., 2017; Am et al., 2020). According to

Tang et al. (2012), alertness may be broadly divided into three sub-themes: scanning/searching for important information, connecting/associating the new information, and assessing/judging the availability of lucrative business opportunities within this newly obtained knowledge.

Kuckertz et al. (2017) find a strong positive relationship between opportunity recognition and each alertness subcomponent of scanning/searching, associating/connecting, and evaluating/judging using a structural equation modeling approach, which is preceded by confirmatory factor analysis conducted on data collected using Likert scale statements. The regression coefficients for these subcomponents stand at 0.78, 0.72, and 0.71, respectively.

However, business adaptation model as highlighted in the preceding paragraphs does not only happen when business perceive opportunities within the crisis. In order to uncover this this, Saebi et al. (2021), undertook a study which collected data from 1196 Norwegian private sector business firms with minimum annual turnover of $ 1.5 million and minimum annual salary expenses of $ 0.5 million. Benchmarked on theories of Threat Rigidity Theory, Prospect Theory and Behavioral Theory of the Firm, they estimate a multinomial logistic regression. They find that business model adaptation is more likely to happen when a threat is perceived by managers than when they perceive an opportunity (in this case, firms tend to maintain the status quo).

2.5 Effect of Strategic Management Responses to Crises on Business Performance

Literature has a considerably large number of studies that have done an evaluation of how the above highlighted strategic management practices adopted by SMEs during crises have affected the performance. By largely classifying the strategic management responses into defensive and non-defensive ones, the investigations have revolved around whether the nature of the reaction to crises matters in the eventual performance of these business entities.

There is no clear-cut agreement in existing literature on the nature of responses that produces better performance and therefore resilience during troubled times. On one hand, there is a body of empirical works that show that being offensive tends to produce superior results in comparison to being defensive. That is, such strategic management practices as business model adaption, increased spending on innovation and employee skill development as well as pivoting have been noted to produce better results in terms of building resilience than those that are defensive.

Results of better business performance in cases where firms pursue offensive strategies in crisis environments have been observed across firms of different sizes (SMEs inclusive), in studies that utilized different statistical approaches to data analyses as well as those conducted in different crises. There are many examples of studies that find a positive relationship between offensive strategic management responses to crises and business performance (Gulati, et al., 2010; Stoker, et al., 2018; Osiyevskyy, et al., 2020; Miocevic, 2021; Klyver & Nielsena, 2021; Stephan, et al., 2021; Garretsen, et al., 2022). Different measures of business performance have been used in these studies but more prevalent ones include sales revenue (Gulati, et al., 2010; Osiyevskyy, et al., 2020; Klyver & Nielsena, 2021; Miocevic, 2021), profitability (Gulati, et al., 2010; Miocevic, 2021) and cashflows (Miocevic, 2021).

Osiyevskyy et al. (2020) recently conducted a study in order to understand how Exploration and Exploitation in Crisis Environment affect business performance. They collected data from 500 randomly selected Russian SMEs (initially, they reached out to a total of 2583 firms to participate but only 500 successfully responded) with staffing levels of less than 250 employees. With the revenue growth as the dependent variable of multiplicative heteroscedasticity regression model which they estimated, they found that explorative reactions to crises improve firm performance while exploitative reactions reduce firm performance. Specifically, the results show that mean revenue growth for firms that were explorative amid deepening crisis challenges was 0.068% ($p=0.000$) higher than for those that were not.

In a different undertaking which involved investigating strategic responses of SMEs during COVID-19 pandemic using a cognitive appraisal perspective, Miocevic (2021) conducted a study on a population of Croatian SMEs operating in business to business (B2B) industries and with number of employees falling between 10 and 250. Out of a total of 2347 that made up the population of interest, 255 SMEs were sampled and data collected. Data were collected on a number of statements of interest using a 5-point Likert scale. Using proactivity as the dependent variable, the author ran a Structural Equation Model (SEM) which was preceded by the performance of the Confirmatory Factor Analysis (CFA). The results from the study show that managers who are proactively positive tend to have positive emotions during crises thereby leading to increased investment spending which eventually supports growth. The opposite was observed for those managers who were proactively negative.

The finding of Osiyevskyy et al. (2020) and Miocevic (2021) are supported by results from Klyver and Nielsen (2021) who find a positive relationship between facing crises with preservarance/innovation with turnover expectations. The study by Klyver & Nielsen (2021) was conducted on Dannish SMEs with an estimated total population of 5582 establishments. Initially reaching out to a sample of 501 SMEs, only about 70% of them successfully responded thereby bringing the effective number of entities who furnished the data to 350. The authors made use of the Ordinary Least Squares (OLS) method to estimate a regression model which had turnover expectations as the dependent variable and persevering, retrenchment and innovation as key independent variables. Their findings show that offensive strategic management reactions of persevering and being innovative were found to be positively associated with turnover expectation. This result was irrespective of whether the SMEs considered themselves to be victims of, immune to or exploiters of the pandemic.

Partly in opposition with the finding of the above studies, Gulati et al. (2010) undertook an investigation which covers three different global recessions (1980-1982, 1990-1991 and 2000-2002). Their sample comprised a total of 4,700 business establishments from across the world. They find that best results are achieved when businesses react with an optimal mix of both offensive and defensive strategies. That is, those that cut costs in order to survive today while simultaneously investing for tomorrow's growth have the highest chance of outperforming peers. Specifically, businesses that react to a crisis with an optimal mix of defensive and offensive strategies have a higher likelihood of doing better than their peers at 37% compared to 26% for those that decide to go offensive 100%.

Relatedly, Wanjala and Awuor (2021) undertook to investigate business response strategies and performance during Covid-19 pandemic among manufacturing firms in Kenya. With a descriptive research design, and utilizing a survey questionnaire, the study collected data from 322 randomly selected respondents with a particular focus on business performance, cost rationalization, strategic alliances, diversification strategy and innovation. Estimating a multiple regression model, they find that both defensive and offensive strategic management responses had a positive influence of the performance of participating entities. That is, the defensive strategy of cost rationalization had a positive influence on performance with a regression coefficient of 0.416 while that for the offensive innovation variable was also positive and statistically significant at 0.209.

The table below provides a summary of some of the cited studies covering the population of interest, target sample sizes, theories utilized, variables studied, analysis type, results as well as the gap of each of the studies in relation to what this study intends to establish.

2.6 A Summary of Related Works

The table below provides a summary of some of the cited studies covering the population of interest, target sample sizes, theories utilized, variables studied, analysis type, results as well as the gap of each of the studies in relation to what this study intends to establish.

Table 1: Literature Review and Gaps

Author	Topic	Population	Sample Size	Theories	Conceptual Framework	Analysis Type	Results	Gap
Alessandri, et al. (2014)	Organizational slack, experience, and acquisition behavior across varying economic environments	Italian manufacturing and service sector firms that made acquisitions between 2007 and 2010	385 firms (corresponding to 385 acquisitions that were studied)	Behavioral theory; Threat-Rigidity Theory	**Dependent variable**: Type of acquisition (domestic non-diversifying, domestic diversifying and cross-border) **Independent variables**: firm acquisition experience, organizational slack (resource underutilization), economic downturn (a dummy variable with value of 1 if acquisition is made during an economic downturn and 0 otherwise, firm size, acquirer diversification and firm performance	Quantitative with the use of a multinomial logit regression	Generally, acquisitions fall during an economic downturn but firms with higher organizational slack and acquisition experience performed better than their counterparts with lower organizational slack and fewer years of acquisition experience	While the study covers a crisis event (2008/2009 global financial crisis), it was purely economic and strictly affecting the demand side of business entities while this study intends to study the Covid-19 pandemic crisis which affected both the demand and supply sides of businesses. Besides, this study was not restricted to SMEs that are particularly hit hard during crises

Kamphuis, et al. (2012)	The Effects of Physical Threat on Team Processes During Complex Task Performance	A pool of volunteers at an unnamed research institute	27 three-person teams	Threat Rigidity Theory	Without involving the study of relationships but rather the difference in behavior between two teams (one subjected to threats while another not subjected to threats), the key variables of the study included information processing, leadership, communication, coordination, supporting behavior and team performance	Preceded by exploratory factor analysis (given that the variables where described by statements measures on a 7-point Likert scale), the study made use of the independent samples t tests	The study finds that teams that were subjected to physical threat experienced restrictions in information processing, had more controlling leadership, engaged in less group discussions, and also exhibited a reduction in coordinating and supporting behavior	Although promised, the participants in the treatment group were not actually submitted to the actual threats (crisis) such that they only reacted to expectations while this study will focus on the actual crisis with actual adverse outcomes

Saebi, et al. (2017)	What Drives Business Model Adaptation? The Impact of Opportunities, Threats and Strategic Orientation	17,312 Norwegian private sector business firms with minimum annual turnover of $ 1.5 million and minimum annual salary expenses of $ 0.5 million	1196 Norwegian companies	Threat Rigidity Theory; Prospect Theory; Behavioral Theory of the Firm	**Dependent variable:** Business model adaptation (covering 4 dimensions of value proposition, choice of target customer, structure of value delivery and value capture mechanism) **Independent variables:** Type of impact (threat or opportunity); strategic orientation (this covered implementation of new solutions, introduction of new products/services, R&D spending, cost reduction, process improvement and price lowering prior to the crisis); control variables (firm size and firm age)	Quantitative with use of multinomial logistic regression	Business model adaptation is more likely to happen when a threat is perceived by managers than when they perceive an opportunity (in this case, firms tend to maintain the status quo)	The study does not state the nature of model adaptation (offensive or defensive) that firms undertake when they perceive a threat in a crisis environment

Klyver & Nielsen (2021)	Which crisis strategies are (expectedly) effective among SMEs during COVID-19?	5582 Dannish SMEs aged between 2 and 12 years and employing 1-250 workers	501 were surveyed but only 70% of them responded thereby bringing the effective sample size to 350	External Enabler Theory	**Dependent variable:** Turnover expectation **Independent variables:** Nature of reaction to the crisis comprising persevering, retrenchment and innovation	Quantitative with use of ordinary least squares regression	Defensive reaction to the crisis (retrenchment) was found to be unrelated to firm performance (turnover expectation) while persevering and being innovative was found to be positively associated with turnover expectation. This result was irrespective of whether the SMEs considered themselves to be victims of, immune to or exploiters of the pandemic	Although the study shows that offensive reactions to crises tend to produce better business outcomes, the dependent variable was based on what the firms themselves expected to see in the future and not the actual performance. There is a chance that the actual outcomes may have differed from what the firms had initially expected to observe. Besides, the study does not indicate which of the two reaction types (offensive or defensive) was more prominent among SMEs that were studied

Osiyevskyy et al. (2020)	Exploration and Exploitation in Crisis Environment: Implications for Level and Variability of Firm Performance	Russian SMEs with staff levels not exceeding 250 employees	500 randomly selected SMEs (initially, 2583 firms were invited to take part in the survey)	Threat Rigidity Theory; Organizational Decline Theory	**Dependent variable:** Firm revenue growth **Independent variables:** Key independent variables were two generic strategies of how firms adapt to environments comprising Exploitation (refinement, choice, production, efficiency, selection, implementation and execution) and exploration (search, variation, risk-taking, experimentation, play, flexibility, discovery, and innovation). In addition, control variables included crisis effect on revenue, firm size, firm age, formalization (strict enforcement of written rules and procedures), centralization (reference of even small matters in company dealing to someone	Quantitative with use of the multiplicative heteroscedasticity regression framework	Explorative reactions to crises improve firm performance while exploitative reactions reduce firm performance	Despite addressing the question of how different types of firm reactions to crises affect performance, the study does not explicitly state the reaction biases of firms (exploitative or explorative) when faced with turbulent times

					higher up for the final answer) and export market access.			
Miocevic (2021)	Investigating strategic responses of SMEs during COVID-19 pandemic: A cognitive appraisal perspective	2347 Croatian SMEs operating in business to business (B2B) industries and with number of employees falling between 10 and 250	255 Croatian SMEs	Cognitive Appraisal Theory	**Dependent variable:** Proactivity **Independent variables:** Positive emotions (determined, inspired, interested), negative emotions (upset, nervous, afraid and insecure), performance expectations, divestment and investment, firm size, export intensity, self-efficacy and industry	Preceded by confirmatory factor analysis (given that the variables where described by statements measures on a 5-point Likert scale), the study made use of the structural equation modelling (SEM)	The study finds that managers who are proactively positive (negative) tend to have positive (negative) emotions during crises thereby leading to increased (reduced investment)	The study does indicate whether businesses are predominantly proactively positive or predominantly proactively negative during crises in comparison to their behavior in normal times
Kreiser et al. (2020)	Entrepreneurial Orientation and Environmental Hostility: A Threat Rigidity Perspective	U.S.-based, publicly traded firms listed on the New York Stock Exchange, NASDAQ, and NYSE Amex from 1994 to 2017	6481 firms	Threat Rigidity Theory; Environmental Hostility Theory; Entrepreneurial Orientation Theory	**Dependent variable:** entrepreneurial orientation **Independent variables:** environmental hostility, recoverable slack	Quantitative with use of Within-Between Multilevel Model (WB-MEM)	In line with the predictions of the threat rigidity theory, the findings suggest that firms quickly pull back from employing entrepreneurial behaviors as the external environment becomes more hostile	The study focused on larger and stock-market-listed firms found in a developed country setup while this study intends to study SMEs found in a developing country setup

Garretsen et al. (2022)	The Pandemic that Shocked Managers Across the World: The Impact of the COVID-19 Crisis on Leadership Behavior	Business managers from 48 countries and 32 sectors for the period January 2019 to December 2020	27,000 business managers	Threat Rigidity Theory	**Dependent variable:** Leadership type (directive and participative) **Independent variables:** Exogenous shock (Covid-19 pandemic), magnitude of the crisis (measured by number of deaths recorded in a country), power distance, working from home potential and level of management. Control variables included age, gender and nativeness of the business manager	Preceded by confirmatory factor analysis, the study utilized a regression framework (difference-in-difference estimation approach).	The results show that during the covid-19 period, business leaders became more directive in their management approach thereby reducing on the participative approach	Although directive leadership is widely considered as traditional, the study does not explicitly state whether its increased intensity implied being offensive or defensive towards the crisis.

Stoker et al. (2018)	Tightening the Leash after a Threat: A Multi-L Event Study on Leadership Behavior following the Financial Crisis	Business managers across 36 countries for the period 2007-2009	20,000 managers selected from 980 organizations	Threat Rigidity Theory	**Dependent variable:** Leadership type (directive or participative) **Independent variables:** crisis (2008/2009 financial crisis), magnitude of the crisis (change in GDP between 2008 and 2009 for the country in which the business resides) and power distance. At the same time, gender, age, tenure, nativeness and education were used as control variables	Quantitative with use of regression model	The results show that during the 2008/2009 financial crisis, business leaders became more directive in their management approach thereby reducing on the participative approach	Although directive leadership is widely considered as traditional, the study does not explicitly state whether its increased intensity implied being offensive or defensive towards the crisis

Shi et al. (2018)	Short Seller Influence on Firm Growth: A Threat-Rigidity Perspective	All firms listed in the Standard & Poor's (S&P) 1500 Index with data covering the period 2000-2014	Unspecified	Threat Rigidity Theory	**Dependent Variables:** Number of growth actions and diversity of growth actions **Independent variables:** Level of short interest, absorptive capacity (measured by R&D intensity), board centrality, financial slack and news sentiments. Control variables included firm size, firm performance, firm diversification, institutional ownership, analyst coverage and governance-related controls	Quantitative with use of ordinary least squares regression and complemented by fixed effects Poisson regression for robustness check purposes	When faced with a crisis, businesses reduce the number and variety of growth initiatives that they would pursue under normal circumstances.	The study was specific to large corporate entities mainly found in advanced economies while this study seeks to focus on SMEs found in a developing country

2.7 Chapter Summary

Generally, literature shows that SMEs tend to suffer disproportionately more during crises compared to large corporates on account of factors ranging from limited financial resources to reliance on relatively small customer base. Even so, their strategic management practices during crises that are dominated by defensive strategies informed by historical experiences of what works best are not atypical as even large corporates follow similar paths. Notwithstanding the bias towards adopting defensive copying strategies during crises by business entities in general, literature shows doing the opposite tends to produce better performance results.

While the foregoing generates important insights regarding the behavior of SMEs during crises, there are a number of areas that remain unaddressed. First, there are few studies that are SME-specific in understanding strategic management practices adopted during the ongoing Covid-19 pandemic and how different practices affect performance. Second, those that have made attempts do not clearly state the extent to which SMEs have acted defensive (if so) as far as copying strategies were concerned especially in the Zambian context.

CHAPTER 3

THEORETICAL AND CONCEPTUAL FRAMEWORKS

3.1 Introduction

Having covered a review of empirical literature in the foregoing chapter, this chapter discusses both the theoretical and conceptual frameworks that underpinned the study. The two theories provided in this chapter are the Threat Rigidity Theory (TRT) and the Failure-Induced Change Theory (FICT). The TRT posits that when faced with crises, business entities tend to stick to the usual ways of doing things thereby resisting change regardless of whether their rigidity produce positive outcomes or not. The FICT on the other hand notes that business houses are more willing to change their ways of operation when sticking to old ways does not deliver desired outcomes. Based on postulations from these theories as well as empirical findings, a conceptual framework is proposed and research hypotheses developed.

3.2 Threat Rigidity Theory

In the midst of increasing frequency of crises that create a disruption to the business environment, the growing literature on how firms behave during such challenging times have relied on a number of theories as bases of arguments in their undertakings. One of the most utilized theories in this area is the Threat Rigidity Theory developed in early 1980s by Staw et al. (1981). The theory posits that the reaction of firms to threats come in two forms which are not necessarily mutually exclusive. These are the restricting information processing and constriction in organizational control. Particularly, information processing restriction is done through the narrowing of attention of new developments, simplification of information codes and a reduction in the number of channels through which information is processed. Meanwhile, control constriction manifests through concentration of organizational power and influence on a few individuals belonging to the higher levels of the leadership hierarchy (Staw, et al., 1981; Stoker, et al., 2018).

The two forms of reaction to a threat by organizations inform the assertions of the threat-rigidity hypothesis. The hypothesis states that organizations tend to narrow their focus to systems and actions that have previously successful for them by restricting the extent to which they seek new information about the threat as well as only letting top management make all the important

decisions. However, such rigid reactions have been found to be sub-optimal in so far as guaranteeing survival is concerned and, as such, they have been blamed for many of the corporate collapses (Staw, et al., 1981).

Although the theory was primarily developed for purposes of addressing the question of organizational adaptation in the face of diversity, it has also found its use in studies that model individual and group level behaviors under stressed conditions (Brezicha, et al., 2022). After all, organizational reactions to crises are decided upon by individuals or a group of individuals such that the social and psychology paths through which individual actions are influenced also apply to organizations by extension (Staw, et al., 1981).

According to the theory, the effects of a threat on individuals that are in charge of organizations show themselves through three dimensions comprising psychological stress, anxiety and physiological arousal. It is important to note that the three tend to be complementary as far as human functioning is concerned (Schlosberg, 1954) with physiological arousal reportedly being responsible for people's behavioral acts witnessed when they are anxious and stressed regardless of whether the source of the threat is laboratory-based or naturally occurring (Staw, et al., 1981).

Some empirical works that have previously utilized the Threat Rigidity Theory argue that the extent to which organizations exhibit information processing restriction and control constriction is directly proportional to the severity of the threat or crisis (Wan & Yiu, 2009; Meyer, et al., 2011; Stoker, et al., 2018). That is, the greater the severity of the threat or crisis, the higher the restriction in information process and practice of control constriction.

3.3 Failure-Induced Change Theory

The Failure-Induced Change Theory is another of the key theories that attempt to explain the behavior of firms as far as strategic management practices are concerned when faced with a threat or crisis. The theory is benchmarked on traditional theories of adaptation that point to organizations' increased propensity to change in an environment where expectations are not being met thereby leading to problemistic search and organizational learning (Ocasio, 1993). Problemistic search involves continuously looking for alternative ways of running an organization when existing ones produce results that are less than desirable in a troubled environment and this process only stops when a satisfactory solution is arrived at while organizational learning describes

a dynamic process of self-improvement through creation and sharing of knowledge among members/units of the organization (Cyert & March, 1963; Dodgson, 1993).

In mirroring the predictions of the Prospect Theory, the Failure-Induced Theory states that in the face of a threat or crisis that creates underperformance, organizations tend to focus on resolution of associated challenges thereby leading to heightened risk-seeking behavior (March & Simon, 1958; Ocasio, 1993). On the basis of the foregoing, it is important to note that the theory predicts stability or inertia in organizational practices and behaviors if performance satisfies expectations at the minimum regardless of whether there is a crisis/threat or not.

Unlike the Threat Rigidity Theory which relies on the direct mapping of individual responses to threats on the organizational level, proponents of Failure-Induced Change Theory argue that there are certain structural settings that may not impede such a mapping in cases where decisions are made by a group. This is because in group setups (rather than individual setups), emergence of threats or crises tend to not only change the informational and normative social influence of each of the group members but also distinctly trigger different social identities that act as transmission mechanism of the effects of threats or crises (Deutsch & Gerard, 1955; Hogg & Abrams, 1988). Besides, and by design, the influence of individual cognitive limitations is largely overcome by the development of routines, processes and structures that are aimed at defining the premises and organizational identities that ultimately shape decision making (March & Simon, 1958; Ocasio, 1993).

3.4 Proposed Conceptual Framework

Generally, a conceptual framework has been described as a representation or illustration of how variables or concepts of the study are expected to be related to each other under a given set of assumptions (Ravitch & Riggan, 2016). The conceptual framework presented in Figure 1 below is author-modified having been informed by both theoretical predictions as well as empirical findings as regards firm behavior in crisis times. As regards the theoretical aspect, the development of the conceptual framework relies heavily on the works of Staw et al. (1981) as well as Barnett and Pratt (2000).

Primarily, the framework starts with recognizing the creation of a threat by a change in conditions in an environment where the business entity operates from. Within the vicinity of the occurrence

of the threat during when no much information is available, business entities generally experience psychological stress and anxiety that subsequently create tendencies of restricted information processing as well as constricted control of the situation. According to Staw et al. (1981), a combination of restricted information processing and constriction in situation control then forces business entities to devise rigidity responses that are well-learned or habituated. Generally, these responses involve scaling down operations ranging from reduced product/service offerings to trimming staff levels (Kamphuis, et al., 2012; Osiyevskyy, et al., 2020; Miocevic, 2021).

There are a number of factors that empirical researchers have advanced to support the foregoing reaction to a crisis environment by business firms. They include a combination of high cost of business model adaptation and low likelihood of success (Pateli & Giaglis, 2005); lack of experimentation willingness (Andries, et al., 2013); prior path dependencies (Saebi, et al., 2017); inadequate capacity to develop skills that are appropriate for leadership and organizational drive (Achtenhagen, et al., 2013; Bashir & Verma, 2019); as well as emotionality (Aarøen & Selart, 2020)

Notwithstanding the aforementioned empirical support for threat rigidity when faced with a crisis, it is not a panacea of responses to challenging environments as observed by some scholars such as Barnett & Pratt (2000), Sabatier et al. (2012) and Saebi et al. (2017). That is, an in a situation where the threat is perceived as one that presents a potential gain rather than a loss (Weller & Thulin, 2012; Aarøen & Selart, 2020), firms tend to increase the generation of knowledge while also expanding the horizon of their control. This is done through continued information seeking

beyond the level needed to confirm the existence of the threat as well as promoting the proliferation of experimentations, risk-taking and creativity based on the knowledge generated from the actively sought information (Barnett & Pratt, 2000).

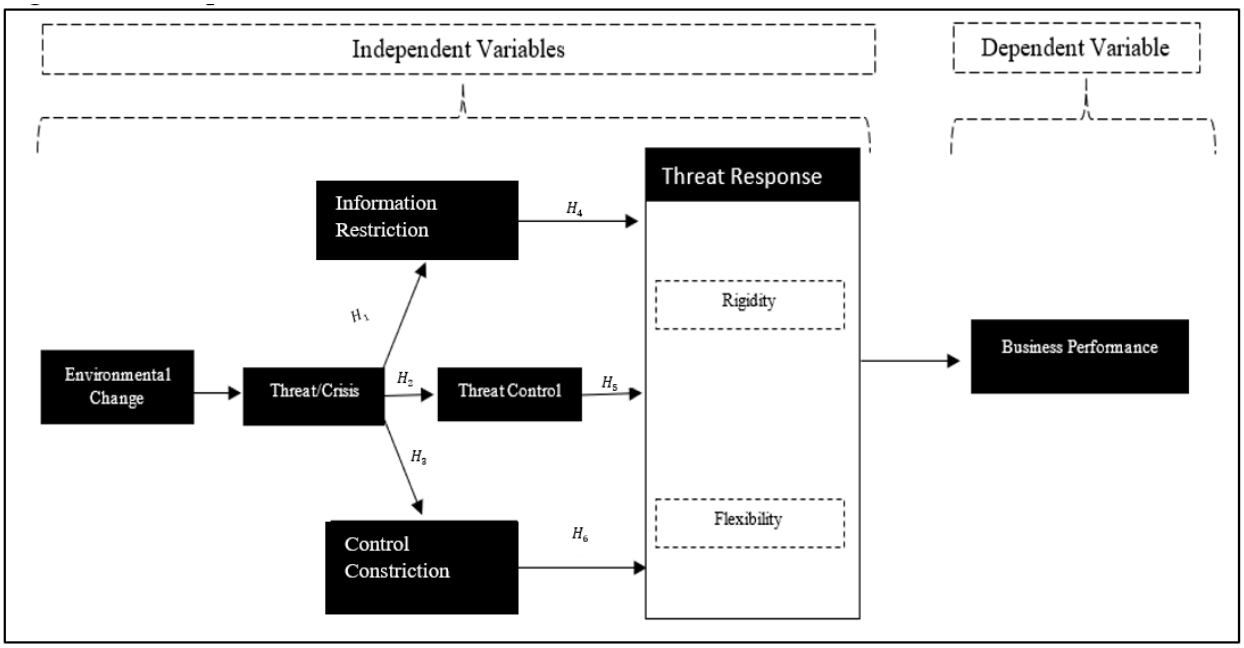

Figure 1: Conceptual Framework

Beyond the responses that are devise in a crisis environment, previous studies have also looked at decisions to be rigid or flexible affect the performance of business entities. Thus, the type of response (rigid or flexible) to the crisis is an independent variable that influence performance as a dependent variable. While there is consensus that crises generally produce adverse outcomes as far as firm performance is concerned (Alessandri, et al., 2014), businesses that respond to the crisis differently (either rigidly or flexibly) tend to have different performance experiences as was noted in the empirical review of literature.

3.4.1 Research Hypotheses

Based on the demonstrated and explained relationships in the developed conceptual framework, the following are the hypotheses (separated into null and alternative for each set) that the study intends to subject to statistical tests given data that will collected from the respondents.

Table 2: Research Hypotheses

1	**H_0**	The crisis associated with the Covid-19 pandemic did not create information restriction
	H_1	The crisis associated with the Covid-19 pandemic created information restriction
2	**H_0**	The crisis associated with the Covid-19 pandemic created threat control

	$\mathbf{H_1}$	The crisis associated with the Covid-19 pandemic did not create threat control
3	$\mathbf{H_0}$	The crisis associated with the Covid-19 pandemic created control constriction
	$\mathbf{H_1}$	The crisis associated with the Covid-19 pandemic did not create control constriction
4	$\mathbf{H_0}$	Information restriction did not have an effect on the performance of SMEs during the Covid-19 pandemic
	$\mathbf{H_1}$	Information restriction affected the performance of SMEs during the Covid-19 pandemic
5	$\mathbf{H_0}$	Threat control did not have an effect on the performance of SMEs during the Covid-19 pandemic
	$\mathbf{H_1}$	Threat control affected the performance of SMEs during the Covid-19 pandemic
6	$\mathbf{H_0}$	Control constriction did not have an effect on the performance of SMEs during the Covid-19 pandemic
	$\mathbf{H_1}$	Control constriction affected the performance of SMEs during the Covid-19 pandemic

3.4.2 Operationalization of Variables

Table 3 below summarizes operational definitions of the concepts/variables that were incorporated in the conceptual framework presented in the in the preceding section.

Table 3: Operational Definitions

Concept/Variable	Conceptual/Variable Definition
Business Performance	Level of achieved revenue, number of customers received, cash flows observed, costs incurred as well as recorded profits/losses in relation to what was expected at the onset of the pandemic
Response Rigidity	Reduction in product/service offerings; reduction in resources devoted towards advertisement campaigns as well as research and development; scaling down staff levels and skill development thereof; non-exploration of new markets; sticking with old channels of product/service delivery
Response Flexibility	Expansion in product/service offerings; enhancement in resources devoted towards advertisement campaigns as well as research and

	development; scaling up staff levels and skill development thereof; exploration of new markets; invention of new channels of product/service delivery
Information Restriction	Restricting information search and processing to known horizons while discarding information related to unknown territories
Threat Control	Mechanisms for navigating or mitigating the effects of a threat/crisis
Control Constriction	Centralization of power and influence on decision making to a few individuals at higher levels of a hierarchy

3.5 Chapter Summary

This chapter discussed the theoretical and conceptual frameworks of the study. Theoretically, the Threat Rigidity Theory and the Failure-Induced Theory that seem to oppose each other were reviewed. Based on these theories and the empirical literature reviewed in chapter 2, a proposed conceptual framework was developed and associated hypotheses were stated. Operational definitions of the key variables or concepts contained in the conceptual frameworks were also provided in a tabular form.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

Having presented the conceptual framework as well as the associated research hypotheses in the preceding chapter, the current chapter contains the proposed methodology. Broadly, the methodology encompasses a set of procedures and techniques that the research proposes to employ in order to arrive at answers for the research questions raised in the introductory chapter. Specific areas covered include the research approach, the study design, the population of interest, the sample size, sample selection criteria, data analysis approaches as well as ethical considerations.

The methodology was chosen and designed in a manner which was appropriate for meeting the three study objectives of establishing strategic management practices that SMEs in Zambia adopted in order to navigate challenges associated with the Covid-19 pandemic; ascertaining the extent to which SMEs' strategic management reactions were offensive or defensive towards the Covid-19 pandemic; as well as stating how strategic management practices adopted by Zambian SMEs during the Covid-19 pandemic affected their performance.

4.2 Research Approach

This study used a pragmatic research approach on the basis that it allowed the researcher to employ distinct methods and techniques for purposes of profoundly understanding the subject under investigation (Kaushik & Walsh, 2019). Particularly, the study benchmarked the investigation on a mixed methods approach that that looks at the phenomenon under study from the qualitative and quantitative dimensions. According to Creswell (2014), a mixed methods approach comes with the merit of complementarity where insights from each of the data types (qualitative and quantitative) cover for each other's weaknesses when simultaneously utilized thereby ensuring that conclusions arrived at are all-encompassing.

4.3 Research Design

According to Kothari (2010), a research design is defined as roadmap of a research undertaking considering that it acts as a guide in the entire process of the study. Among a number of research

designs found under the mixed methods approach, the study adopted an embedded mixed method design which advocates for simultaneous collection of both quantitative and qualitative data with one set of data playing a secondary role of supplementing findings from the other dataset. In this study, quantitative data was of primary interest while secondary data played a secondary role (embedded in quantitative data results). The key merit of employing a mixed method research design is that findings from quantitative and qualitative data tend to complement each other. As such, this helps in addressing the weaknesses associated with exclusive utilization of either the quantitative or qualitative research design.

4.4 Population of the Study

In view of SMEs dominating business landscape not only in Zambia but world over and that they are disproportionately affected by crises, they were the target population for this study. On account of constraints as far as resources are concerned, the study was restricted to SMEs in Lusaka and operating in the retail sector regardless of whether they are formal (registered with the Patents and Company Registration Agency – PACRA) or not.

Considering high levels of informality in Zambia, it is difficult to know the exact number of SMEs in Zambia but they were estimated at about 1,020,000 as of 2008 (Shah, 2012). Of these, 21% of them were operating in the retail sector and 8% were found in Lusaka. On the basis of the foregoing, there were approximately 17,136 retail SMEs in Lusaka in 2008 and this number should be much higher given that Zambia as a country has seen business formation averaging over 8,000 per year in the formal sector alone.

4.5 Sample Size and Sampling Technique

Given the availability of an estimated minimum population size of retail SMEs in Lusaka, the study used an approach developed by Krejcie and Morgan (1970) for purposes of computing the optimal sample size from where data were collected. The formula below demonstrates the parameters recommended by Krejcie and Morgan (1970) in the computation of the optimal sample size in setups where the population size is known.

$$n = \frac{\chi^2_{0.05} NP(1-P)}{d^2(N-1)+\chi^2_{0.05}P(1-P)} \quad \text{...} \quad (1)$$

Where

$n = optimal\ sample\ size$

$\chi^2_{0.05} = Chi - Square\ value\ at\ 1\ degree\ of\ freedom = 3.841$

$N = Population\ size = 17{,}136$

$P = Population\ proportion\ set\ at\ 50\%\ (0.5)\ to\ generate\ the\ largest\ sample\ size$

$d = degree\ of\ acuracy\ taken\ as\ 0.05$

Substituting the above numbers into the formula, the optimal sample size for SMEs that furnished quantitative data came out to be 376 as per below calculation.

$$n = \frac{3.841*17136*0.5(1-0.5)}{0.05*0.05(17136-1)+3.841*0.5(1-0.5)} = \frac{16454.84}{43.80} \approx \mathbf{376}$$

Figure 2 below shows the pictorial representation of the sample size calculator available here.

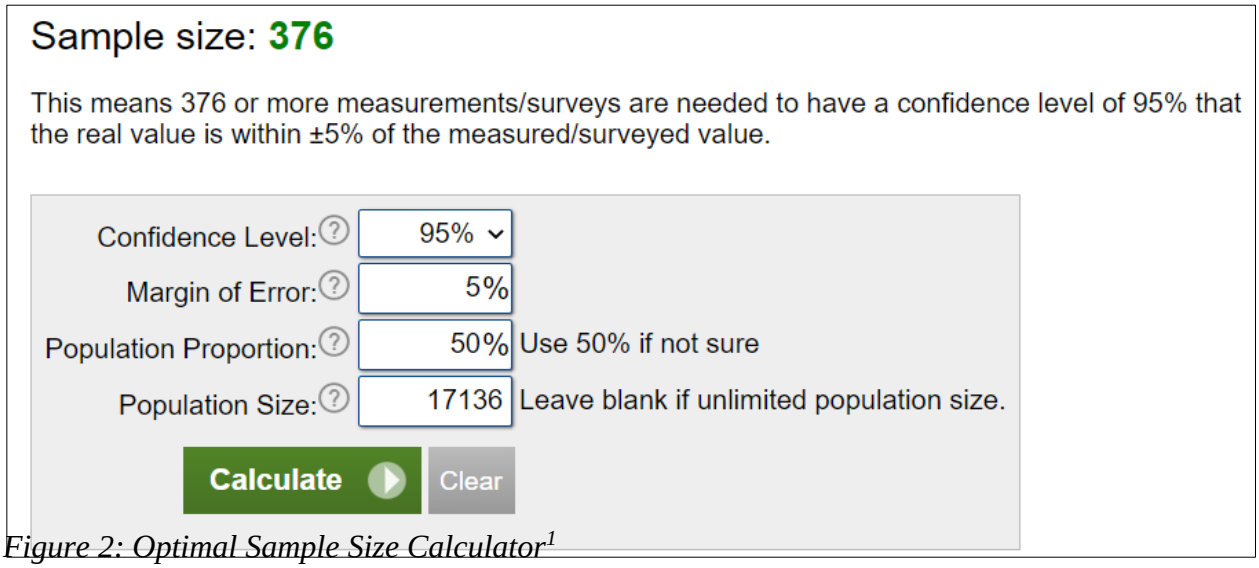

Figure 2: Optimal Sample Size Calculator[1]

As regards the sampling technique, and considering lack of a sampling frame for all retail sector SMEs in Lusaka (high levels of informality is the key reason because only a small portion of them formally register their business establishments), the study used convenient sampling technique.

[1] Available online at http://www.calculator.net/sample-size-calculator.html

4.6 Questionnaire and Data Collection Methods

For purposes of collecting data, a survey questionnaire comprising closed (for quantitative) and open-ended (for qualitative data) was developed. Having developed the questionnaire, it was programmed into a Google document and an associated link extracted. The link was then used in the distribution of the questionnaire to the target population leveraging on personal networks, SME organizations and social media platforms. To ensure that only SMEs operating in the retail space and Lusaka responded to the survey, location and sector filter questions were incorporated in the Google document.

Considering that the questionnaire was answered in the absence of a human data collector, its designing followed the 'BOSS' principle. This principle advocates for keeping the questions basic, objective, simple and specific thereby completing the aforementioned acronym. Designing a questionnaire in such a manner ensures that the respondent adequately understands the questions being asked thereby leading to a higher likelihood of quality responses or data.

Once the target number of successful responses (376) was met, the data were extracted to an excel file before being exported to the analysis software. One Key advantage of distributing the questionnaire in this manner is that it is quicker while also allowing the researcher to monitor and examine data as they come in.

4.7 Data Analysis

As already mentioned in the foregoing section, once a satisfactory amount of appropriately completed questionnaires was achieved, the data were extracted to an excel file and later uploaded to the Statistical Package for Social Sciences (SPSS), a software utilized for data analysis. As preliminary steps, data were initially checked for completeness, relevancy, and accuracy in order to ensure that the collected data are of the required quality prior to conducting statistical analyses.

Following the foregoing, an examination of the of the survey instrument and data validity was conducted. Particularly, and given that the majority of the data were collected through a Likert scale questionnaire, Exploratory Factor Analysis (EFA) was employed for this purpose following recommendations from Kaiser (1958) and Watkins (2018). This approach offered the researcher an opportunity to check for sampling adequacy (using the Kaiser-Meyer-Olkin test); bring out the underlying structure and dimension of the data (using the Bartlett's test of sphericity); examine the

reliability and internal consistency of the data (using the Cronbach's Alpha test); as well as determining whether the statements really belonged to or identify with the aspect (construct/variable) under which they fell (Kaiser, 1958; Fabrigar, et al., 1999; Norris & Lecavalier, 2009; Watkins, 2018).

With EFA providing a basis for collapsing the many Likert scale statements into few but easily interpretable index variables representing each aspect of interest, data analysis that answers research questions followed using descriptive statistics as well as a regression model. Two key assumptions are worth noting as regards the employment of the regression model. First, the model assumed that the continuous variables were normally distributed and this was the case considering the approach used in the computation of factor scores. Second, the model assumed that non-existence of multicollinearity which was confirmed by small variance inflation factors (VIF). The results from the aforementioned quantitative data analyses were presented using such tools as charts, figures and tables.

Meanwhile, qualitative (textual) data was analyzed using a combination of thematic and content analysis techniques. Qualitative data were incorporate during the discussion of quantitative data results.

4.8 Ethical Considerations

According to Creswell (2014), the research's ethical code of conduct stipulates that a researcher is responsible for ensuring that the study participants are protected in terms of their privacy, dignity as well as their freedom of choice (as far as participating in the study is concerned). In this regard, and in show of effort to uphold these ethical values, the researcher did not coerce the SMEs to participate in the study and those that volunteered to take part in the survey were assured that the provided data would purely be used for the purpose of this academic research undertaking. Therefore, the data were shared with anyone else with no direct interest in this study.

4.9 Chapter Summary

The chapter presented the methodology of the study by detailing procedures and techniques that were followed in meeting objectives and answering research questions. Benchmarked on a pragmatic research approach, the study adopted a mixed research design. Out of over 17,000 retail sector SMEs in Lusaka, a total of 376 of them were conveniently selected to participate in study.

Primarily utilizing SPSS, data were first subjected to Exploratory Factor Analysis (EFA) before being descriptively analyzed and results presented through such tools as charts, figures and tables. The use of EFA enabled the computation of factor scores which were crucial in establishing adopted strategic management practices; ascertaining the extent to which these strategic management reactions were offensive or defensive; as well as stating how strategic management practices affected the performance of investigated SMEs. Meanwhile, qualitative data were analyzed using a combination of thematic and content analysis techniques and results were incorporated in the discussion chapter of the paper.

CHAPTER 5

PRESENTATION OF RESULTS

5.0 Introduction

Having provided details of techniques to be used in analyzing the data in the preceding chapter, the paper now turns to the implementation of those techniques. The chapter starts with the response rate achieved followed by a presentation of the background of the respondents and the business entities they represented. Before proceeding to answers to the research questions raised in the first chapter, an Exploratory Factor Analysis (EFA) is conducted on the Likert Scale data for purposes of establishing the validity and adequacy for further analysis. In answering research question in the final section of the chapter, use is made of descriptive statistics as well as estimation of a regression model which uncovers how strategic management practices adopted by SMEs influenced their relative performance.

5.1 Participants Response Rate

Based on an estimated population of targeted SMEs, the study initially intended to interview a total of 376 of these entities. However, and after a two-week window post the distribution of the research questionnaires, only 364 participants responded to the survey. Of the total respondents, 31 were from businesses that were established after the pandemic and were, therefore, filtered off from rest of the survey questions considering that the focus of the study was to establish pre and post Covid-19 strategic management practices. Given the foregoing, the valid number of respondents who participated in the study stood at 333 thereby giving a response rate of 88.6%. Table 5.1 below summarizes information of the study response rate.

Table 4: Survey Response Rate

Sample Size	Total Respondents	Disqualified Respondents	Valid Response Rate
376	364	31	88.6%

In theory, it is desired to achieve a 100% response rate in order to avoid consequences of non-response bias such as the drawn sample not being representative of the population. However, such an occurrence is practically very rare. Given the foregoing, fears of having serous non-response

bias consequences are allayed when the response rate is high (mostly at least 50%) as was the case in this study.

5.2 Business and Respondent Background Characteristics

5.2.1 Gender

The distribution of the study respondents by gender is displayed in Figure 3 below. As the results show, males were dominant respondents having accounted for 66.1% (n=220) of people that participated in the study. Although the study did not establish whether the respondents were the owners of the business entities they represented, this finding reflects the ownership structure of SMEs in Zambia as reported by the World Bank (2021) that report that only 36% of SMEs in Zambia are owned by women.

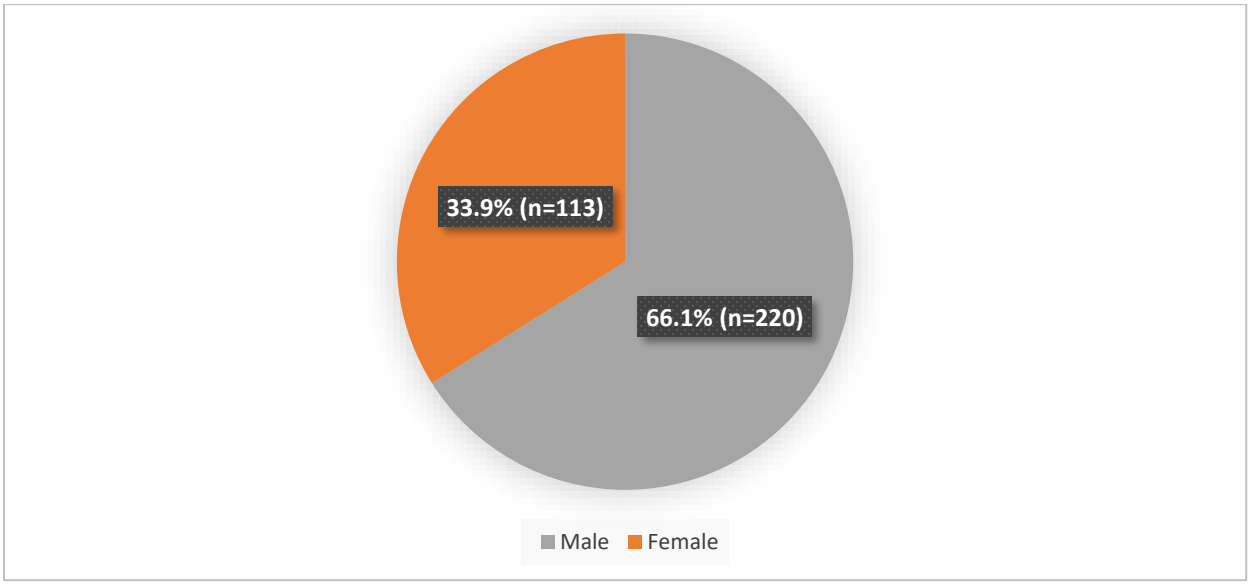

Figure 3: Distribution of Respondents by Gender

5.2.2 Age Distribution of Respondents

Table 5 below shows that the average age of the respondents that participated in the study was about 41 years with the youngest being 27 years while the oldest was aged 67. Despite the mean age standing at 41, there was considerable variation as signaled by an 8.5 standard deviation of the age distribution of the study respondents. This means that for any randomly selected respondent, their age was equally likely to be above or below the mean by a maximum of eight and half years.

Table 5: Age Distribution of Respondents

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Age	330	27	67	40.7	8.5

5.2.3 Respondents Education Level

The pool of respondents that participated in the study were generally educated with more than half of them having attained tertiary level education with shares of 31.8%, 17.4% and 3.9% for those holding a certificate/diploma, bachelor's degree/its equivalency and at least master's degree, respectively. The percentage of those that exclusively attended secondary school level was the highest at 43.8% while those that only went up to primary school was the least at 3%.

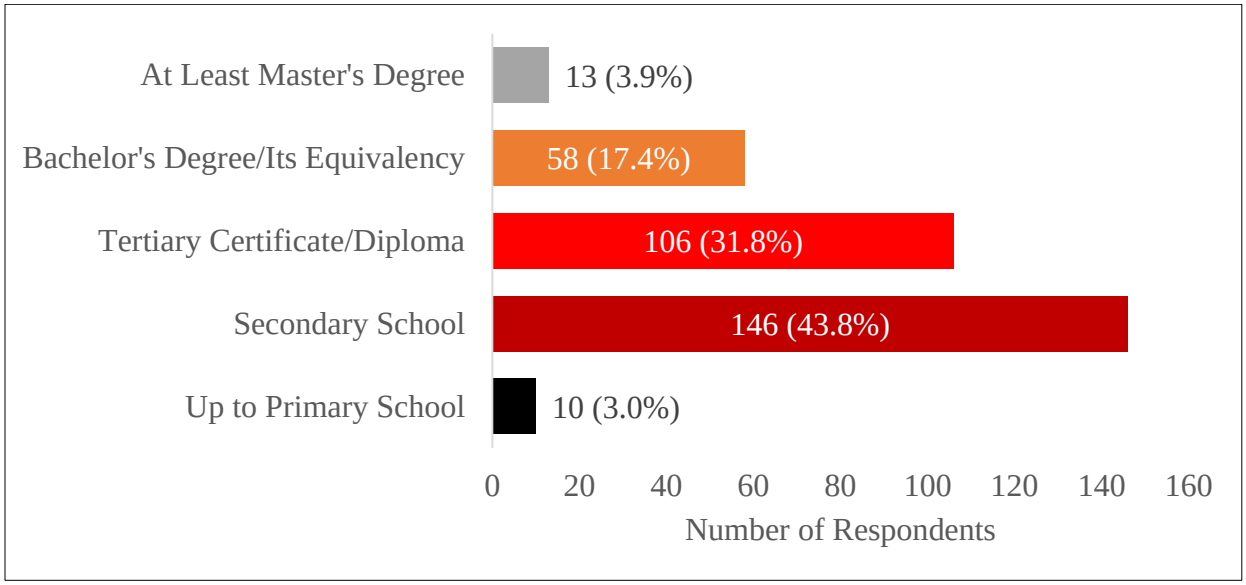

Figure 4: Distribution of Respondents by Highest Level of Education

5.2.4 Business Formality and Years of Operation

Defining formality as being registered with the Patents and Company Registration Agency (PACRA), only 3 (27.6%) in every 10 surveyed businesses were operating formally while the rest were informal. Heightened levels of informality among participating SMEs was in line with what others have previously observed (Nuwagaba, 2015; Chijikwa & Mulenga, 2023). At the time of the survey, a quarter of them had been in operation for 8-10 years, nearly 23% had been in operation for 5-7 years while the share of those aged 4 years (implying up to 1-year pre-pandemic

existence) stood at 21%. Further, the combined sum of the business that had been in existence for over 10 years was 103 thereby representing nearly 40% of the surveyed business establishments.

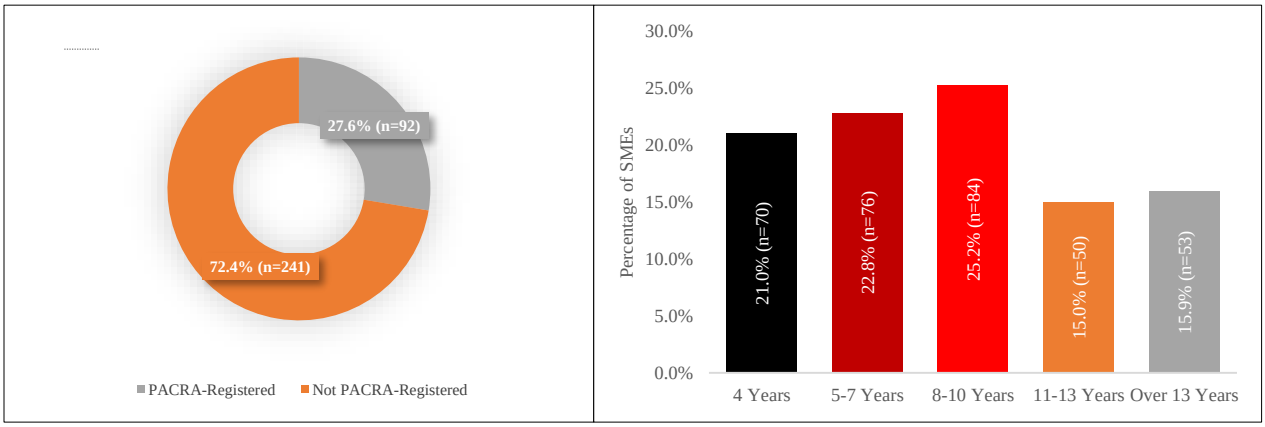

Figure 5: Distribution of Surveyed SMEs by Formality and Years of Operation

5.2.5 Business Size

In addition to establishing formality and years of operation, the study also assessed the size of the businesses that took part in the study. The two dimensions of business size that were considered were employment levels and annual revenue. Over 60% (204) of the surveyed SMEs had a maximum of 3 employees with 64 of them (19.2% of all businesses) operating with one employee. The proportion of those that were employing between 4 and 7 workers was 38.7% (121 SMEs) while only 3% of them reported having at least 8 employees. In mirroring the distribution of participating SMEs by employment size, results in Table 5.2 show that a slight majority (51.7%) of them had an annual revenue of up to ZMW 600,000, those posting annual revenue above ZMW 600,000 but not more than ZMW 1,000,000 accounted for 42% (equivalent to 140 SMEs) while the rest (6.3%, n=21) comprised business with annual revenue in excess of ZMW 1,000,000.

Table 6: Distribution of Surveyed SMEs by Employment and Revenue Levels

Variable	Category	Frequency	Percentage
Employment Level	Just Myself	64	19.2%
	2-3 Employees	140	42.0%
	4-5 Employees	77	25.5%
	6-7 Employees	44	13.2%
	At Least 8 Employees	10	3.0%
	Total	**333**	**100.0%**
Average Annual Revenue	Below ZMW 400,000	48	14.4%

ZMW 400,000 – ZMW 600,000	124	37.2%
ZMW 600,001 – ZMW 800,000	81	24.3%
ZMW 800,001 – ZMW 1,000,000	59	17.7%
Over ZMW 1,000,000	21	6.3%
Total	**333**	**100.0%**

5.3 Exploratory Factor Analysis

Beyond respondent and firm specific data, the study collected data on strategic management practices that they adopted during the Covid-19 pandemic period as well as their business performance. Given multifaceted nature of these variables, associated data were collected through the use of a range of distinct but related statements to which respondents were supposed to indicate their degree of agreement, disagreement or indeed stating neutrality. As was explained in the methodology chapter, there data were therefore collected using a 5-point Likert scale.

Considering that the questionnaire items on the two aspects were not guided by theory but by prior use by researchers on related topics, it is recommended (Costello & Osborne, 2005; Watkins, 2018) that the associated be subjected to Exploratory Factor Analysis (EFA) before further analyses can be conducted. The conduction of EFA on Likert scale data comes with two benefits that ensure statistical soundness of the conclusions derived from subsequent use. These are uncovering of the underlying structure of the data and establishment of the validity and reliability of the scale of measurement contained in the survey questionnaire.

Broadly, EFA has a number of sequential steps with each preceding result acting as a prerequisite to conduction of the subsequent examination. Through the use of the Kaiser-Meyer-Olkin (KMO) and Bartlett's tests, the process starts with the simultaneous determination of the sampling adequacy of the data and sphericity of the variable statement, respectively. Together, the two tests reveal suitability (or the lack of it) of the data in the performance of factor analysis. For a given variable, the test for sphericity answers the question of whether the responses furnished by study participants indicate that the different statements describe the same thing, in which case there should be a strong correlation among them (Bartlett, 1954). Data is considered appropriate for if the KMO value is above 0.5 while the probability value of the Bartlett's test is below 0.05 level of significance (Kaiser, 1958; Hair, et al., 2010).

Once the data are deemed suitable for EFA by the above tests, the next step is establishing whether the variable items/statements can be distinctively categorized into one or more groups commonly known as factors. By construction, and for each variable, the number of the candidate factors that EFA examines is always equal to the number of items/statements that it contains. For each of these candidates, the analysis produces eigenvalues that contain information about the amount of common variance explained by the factor in question. Following the Kaiser criterion (Kaiser, 1958) which has been used widely in empirical studies (Watkins, 2018), the study only retained factors with eigenvalues of 1 and above.

Although there are a number of that are used in extracting the identified factors, the study adopted the Principal Component Analysis (PCA) approach. Employed together with the Varimax rotation criterion, the PCA extraction method was chosen for the merits of parsimony and maximization of the variance shared among the factor items/statements (Child, 2006).

The EFA results for each of the variables for which data were captured through the Likert scale items/statements are presented and discussed in the subsequent sections below.

5.3.1 Information Restriction and Knowledge Expansion

Table 7 below shows the EFA results for the opposing constructs of information restriction and knowledge expansion with mean ratings for the former ranging from 3.68 to 4.07 while those for the latter ranged lower from 2.19 from 2.44. Given the criteria stated in the preceding section, KMO and Bartlett's test values suggest that the data pass the sampling adequacy and sphericity tests thereby supporting the conduction of EFA.

In each case, only one factor was retained with that of information restriction having an eigenvalue of 3.27 and explaining 81.8% of the common variance of the four statement. Relatedly, the eigenvalue and explained variance figures for knowledge expansion factor stand at 2.95 and 73.6%. Based on the factor loadings that were in excess of 0.8 (out of a possible maximum of 1), each of the statements strongly identified with the factors under which they fell. Factor loading are important in not only quantifying the extent to which a variable statement is related to the identified factor but also achieving parsimony (working with a few variables containing information from a large set of variables). That is, the higher the factor loading is, the more credible the identified factor is.

Table 7: EFA Results for Practices of Information Restriction and Knowledge Expansion

Variable	Statement	Mean	Factor Loading	KMO Value	Bartlett's Test Sig.	Eigenvalue	Explained Variance
Information Restriction	*During the Covid-19 pandemic, quests for new information related to the crisis were curtailed*	4.07	0.862	0.818	0.000	3.270	81.75%
	During the Covid-19 pandemic, the flow of information in our company was limited	3.83	0.912				
	During the Covid-19 pandemic, interactions with others to acquire new information were minimized	3.85	0.931				
	During the Covid-19 pandemic, we held the view that continued search for information regarding the business environment was not good for our business	3.68	0.909				
	Mean of Mean Responses	**3.86**					
Knowledge Expansion	*During the Covid-19 pandemic, there was increased quests for new information related to the crisis*	2.19	0.827	0.822	0.000	2.946	73.65%
	During the Covid-19 pandemic, there was improved flow of information in our business	2.40	0.860				
	During the Covid-19 pandemic, interactions with others for purposes of acquiring new information were encouraged	2.33	0.880				
	During the Covid-19 pandemic, we always kept an eye out for new business ideas when looking for information	2.44	0.864				
	Mean of Mean Responses	**2.34**					

5.3.2 Control Constriction and Control Expansion

For contrasting practices of control constriction and control expansion, EFA results displayed in Table 8 indicate that their respective statements passed the sampling adequate test given KMO values of 0.82 and 0.85. Besides, the statements in each of the cases were significantly correlated owing to the fact that the p-values of Bartlett's test sig values were way lower than the prescribed threshold of 0.05.

Similar to results observed in the preceding section, there was only one statistically meaningful factor into which the variable statements strongly loaded (loading factors above 0.6). The factor for control constriction had an eigenvalue of 3.20 while that for control expansion came in at 3.01 with statements' common variance explanatory powers of 64.0%% and 60.1%%, respectively.

Table 8: EFA Results for Practices of Control Constriction and Control Expansion

Variable	Statement	Mean	Factor Loading	KMO Value	Bartlett's Test Sig	Eigenvalue	Explained Variance
Control Constriction	*During the Covid-19 pandemic, employees promptly carried out instructions issued by people in management*	3.72	0.836	0.816	0.000	3.200	64.01%
	During the Covid-19 pandemic, employees that deviated from instructions issued by people in management were quickly corrected	3.44	0.823				
	During the Covid-19 pandemic, activities of the employees were closely monitored to make sure they were within the expected parameters	3.15	0.675				
	During the Covid-19 pandemic, management made most of the decisions for employees	3.27	0.862				
	During the Covid-19 pandemic, employees were required to frequently provide detailed updates	3.19	0.791				
	Mean of Mean Responses	3.35					
Control Expansion	*During the Covid-19 pandemic, employees were encouraged to make decisions for themselves*	2.33	0.813	0.846	0.000	3.006	60.13%
	During the Covid-19 pandemic, decisions were made through consensus with the rest of employees	2.50	0.825				
	During the Covid-19 pandemic, all employees were involved and well-informed about organizational issues that affected them	2.77	0.604				
	During the Covid-19 pandemic, employees were encouraged to participate in most decision-making actions	2.72	0.838				
	During the Covid-19 pandemic, new ideas from the team were regularly adopted	2.68	0.773				
	Mean of Mean Responses	**2.60**					

5.3.3 Threat Control (Scaling Down and Scaling Up)

Final EFA results on contrasting strategic management practices exhibited by SMEs during the Covid-19 pandemic crisis relates to scaling down and scaling up of operations and average survey responses to their statements were in the ranges of 3.55-3.83 and 1.85-2.03. The performance of EFA on the variables' data in question received support from higher (than the 0.5 threshold) KMO values and lower (than the 0.05 threshold) probability values for the sphericity tests.

For both scaling down and scaling up, one factor was identified by PCA while the rest were discarded without a meaningful loss of important statistical information. This was because only one factor out of the possible 6 had an eigenvalue greater than one (4.71 and 3.97 for scaling down and scaling up responses, respectively). The factor for scaling down accounted for 75.5% of the common variance shared by the 6 statements while the corresponding figure for scaling up was relatively lower at 66.1%. Elevated levels of the common variance explained by these factors

reflected how strong each statement identified with them (loading factors for scaling down were between 0.867 and 0.912 while those for scaling up were in the range of 0.752-0.845).

Table 9: EFA Results for Practices of Scaling Down and Scaling Up

Variable	Statement	Mean	Factor Loading	KMO Value	Bartlett's Test Sig	Eigenvalue	Explained Variance
Scaling Down	*During the Covid-19 pandemic, deliberate actions were taken to reduce our scale of operation*	3.77	0.867	0.893	0.000	4.710	78.49%
	During the Covid-19 pandemic, deliberate actions were taken to reduce the number of employees	3.78	0.915				
	During the Covid-19 pandemic, deliberate actions were taken to scale down skills development activities for employees	3.70	0.872				
	During the Covid-19 pandemic, deliberate actions were taken to reduce costs associated with advertising	3.83	0.881				
	During the Covid-19 pandemic, efforts aimed at development of new products/services were postponed	3.66	0.912				
	During the Covid-19 pandemic, we did not see any benefit in trying to devise new ways of delivering our products/services	3.55	0.867				
	Mean of Mean Responses	**3.72**					
Scaling Up	*During the Covid-19 pandemic, deliberate actions were taken to enhance our scale of operation*	1.91	0.752	0.877	0.000	3.967	66.11%
	During the Covid-19 pandemic, deliberate actions were taken to increase the number of employees	1.89	0.835				
	During the Covid-19 pandemic, deliberate actions were taken to promote skills development activities for employees	2.02	0.820				
	During the Covid-19 pandemic, deliberate actions were taken to improve our advertising campaigns	1.85	0.817				
	During the Covid-19 pandemic, efforts aimed at development of new products/services were postponed	1.98	0.845				
	During the Covid-19 pandemic, we saw it beneficial to devise new ways of delivering our products/services	2.03	0.806				
	Mean of Mean Responses	**1.95**					

5.3.4 Business Performance

Away from strategic management practices, the study also collected data on performance of the business relative to their prior expectations at the time that the Covid-19 pandemic emerged. In capturing this data, there were a total of 5 statements related to business performance comprising operational costs, revenue and profitability, among other aspects. Revealing sampling adequacy and relatedness of the items meant to describe relative business performance, EFA results in Table 5.7 show a KMO value of 0.845 and a probability value of Bartlett's test at 0.000. Of the possible 5 factors, only one with an eigenvalue of 3.80 and explaining a total of 75.9% of the variance

shared by the responses supplied to the 5 statements describing business performance was retained. All the statements loaded strongly to the retained factor as implied by factor loadings that were all in excess of 0.8

Table 10: EFA Results for Relative Business Performance

Variable	Statement	Mean	Factor Loading	KMO Value	Bartlett's Test Sig	Eigenvalue	Explained Variance
Business Performance	*Compared to our expectations, our revenue performance during the Covid-19 pandemic was worse*	2.45	0.857	0.845	0.000	3.797	75.94%
	Compared to our expectations, we struggled to have a satisfying number of customers for our goods/services	2.52	0.850				
	Our cash flows during the Covid-19 pandemic were worse than we expected	2.17	0.910				
	Compared to our expectations, our costs were too high to be justified by our overall business performance during the Covid-19	2.12	0.907				
	Our profits/losses during the Covid-19 pandemic were worse than we expected	1.93	0.830				
	Mean of Mean Responses	**2.24**					

5.4 Scale Reliability Analysis

The analysis conducted in the preceding section was key in establishing that the statements belonging to a particular variable were expectedly correlated as well as uncovering the number of data dimensions (factors) that contained statistically useful information for each of the variables under study. However, EFA does not give information on whether statements belonging to a particular variable (different strategic management practices and relative business performance in the case of this study) are internally consistent. Determination of internal consistency in Likert scale data is important in ensuring that the different variable items individually and collectively measure/describe the same thing/characteristic for purposes of guaranteeing scale reliability.

In order to test for internal consistency and reliability of the scale of measurement contained in the survey questionnaire, the study used a Cronbach's Alpha method. The method states that a scale of measurement is internally consistent and reliable if the value of the Cronbach's Alpha for the variable statements exceeds 0.7 (Taber, 2018). Table 5.8 below shows the results for the scale reliability of the survey questionnaire. As can be seen, all the variable statements passed the scale reliability test considering that their respective Cronbach's Alpha values were all above 0.7.

Table 11: Scale Reliability Test Results

Variable	Number of Statements/Items	Cronbach's Alpha
Information Restriction	4	0.925
Knowledge Expansion	4	0.880
Control Constriction	5	0.857
Control Expansion	5	0.831
Scaling Down	6	0.945
Scaling Up	6	0.896
Business Performance	5	0.919

5.5 Factor Scores

In addition to enabling the determination of the number of factors to into which statements for each of the strategic management practices and relative business performance were meaningfully loading, EFA also allows for the computation of factor scores. Broadly, and for each respondent, factor scores are composite indices that synthesizes data/ratings on multiple statements about a particular variable into a single numerical indicator. On the basis of this capability, EFA is among a number of statistical techniques that are used in dimension reduction. Importantly, and depending on the needs and objectives of the researcher, factor scores find their wide utility in further analyses (Tabachnick & Fidell, 2014).

Following the performance of EFA, different statistical packages provide a host of competing techniques that one can use in the computation of factor scores. The options in the SPSS platform which was analyzing this study's data comprised regression, Bartlett and Anderson-Rubin approaches. Of the three, this study adopted the regression methodology which treats raw Likert scale data on the statements of the variable as explanatory variables. The choice of the aforementioned methodology was informed by the ability to maximize data validity (DiStefano, et al., 2009) and production of normally distributed factor scores in cases where the factor extraction method is PCA (Beauducel & Hilger, 2017).

The normal distribution characterizing the factor scores computed in the manner described above has a mean of zero and a variance of one. The foregoing implies that some of the scores come out positive while the others come out negative. Specifically, and for a 5-point Likert scale, a factor score tends to be positive if the majority of the responses to statements relating to a particular variable are above the neutral mark of 3 and negative if the opposite is true. That is, the sign of the

factor score is able to indicate whether a respondent generally agrees or disagrees with the statements. As such, a positive factor score signals a general agreement while a negative factor score signals a general disagreement.

For purposes of counterchecking consistency of the answers supplied by respondents, the survey questionnaire was designed in such a way that a given set to statements was presented to them twice. In the first instance, they were cast in a positive manner while in the second case, they were cast negatively. For example, the statements "*During the Covid-19 pandemic, quests for new information related to the crisis were curtailed"* and *"During the Covid-19 pandemic, there was increased quests for new information related to the crisis"* were soliciting for the same information but in two different ways. Besides, this symmetrical approach to data collection helped in validating the fact that a general agreement (positive factor score) in positive statement cast implied a general disagreement (negative factor score) in a negative statement cast. This was only done on strategic management practices investigated in this research undertaking (information restriction, control constriction and threat rigidity) and not on related business performance.

Notwithstanding the foregoing, there were cases where respondents contradicted themselves and these data points were discarded on account of being 'contaminated'. The discarded data points totaled 66, 56 and 55 for strategic management practices of information restriction, control constriction and threat rigidity, respectively. It is important to note that the exclusion of these data points did not cloudy the conclusion that survey participants were generally consistent in their responses. This was confirmed by negative and strong bivariate correlation coefficients (they were all less than -0.8 and statistically significant at 1% level ff significance) of the factor scores for each pair of contradictory strategic management practices (information restriction vs knowledge expansion; control constriction vs control expansion; threat rigidity vs threat flexibility) before the dropping of the inconsistent data pairs.

5.6 What Strategic Management Practices Did SMEs Adopt During the Covid-19 Crisis and to What Extent?

Leveraging on the signs (positive or negative) of the factor scores discussed extensively in the foregoing section, percentages of SMEs that adopted defensive (information restriction, control constriction and threat rigidity) and offensive (knowledge expansion, control expansion and threat

flexibility) strategic management practices were computed as displayed in Table 2. While different SMEs chose to operate with different strategic management practices in reaction to the Covid-19 pandemic crisis, those that revealed having adopted defensive strategies outnumbered those that adopted offensive ones in all the three paired aspects examined in the study.

Information restriction was the most dominant form of the defensive reaction to the crisis having been reported by 58% of the surveyed SMEs. This entails that these business establishments tended to limit the search for and processing of information thereby making them rely more on their prior experiences about crises. This was accompanied by paying little attention to nonfamiliar clues that are capable of challenging well-learned conclusions.

In the second place were businesses that indicated having decided to downscale their operations. This was done through such initiatives as reducing the number of workers, spending less resources on advertising and product/skills development as well as not engaging in activities that involved efforts directed towards devising new ways of delivering their goods and services. The least practiced defensive management strategy by surveyed SMEs (51.5%) was control constriction which involves keeping critical business decision making as a preserve of the people in top management, with little to no attention paid to input from subordinates.

Table 12: Strategic Management Practices Adopted by SMEs during the Covid-19 Crisis

Strategic Management Practice	Number of SMEs	Practiced	Not Practiced
Information Restriction	267	58.0%	42.0%
Scaling Down Operations	278	52.9%	47.1%
Control Constriction	277	51.5%	48.5%
Average	**274**	**54.1%**	**45.9%**

Using a simple majoritarian rule, these results show that surveyed SMEs reacted defensively to the Covid-19 pandemic in as far as strategic management practices were concerned and, thus, supporting the predictions of the Threat Rigidity Theory. Nonetheless, the extent to which surveyed participants reacted to the pandemic defensively was moderate given that the average proportion of SMEs that did so was only a slight majority of 54.1%.

The above results also provide a basis for the testing of hypotheses 1 to 3 that speak to the Covid-19 pandemic crisis having created information restriction, threat control and control constriction, respectively. With the data in Table 12 supporting the foregoing hypotheses, the study concludes

that the Covid-19 pandemic crisis lead to tendencies of information restriction, threat control and control constriction among surveyed retail sector SMEs in Lusaka.

5.7 Does the Nature of the Strategic Management Reaction to Crises Matter to Business Performance?

In addition to determining what strategic management practices SMEs adopted to navigate through the Covid-19 crisis as well as the direction of gravitation between offensive and defensive, the study also undertook to understand whether such choices had an influence on their relative performance. Rather than looking at performance relative to the pre-pandemic period, respondents were asked to compare their actual pandemic period performance relative to what their expectations were at the time that the crisis just started.

In order to determine how the nature of the reaction to the crisis affected the relative performance of the surveyed SMEs, use was made of the multiple regression model. The use of the regression framework was enabled by the fact that factor scores are not only continuous in nature but also that they follow a normal distribution as was discussed in section 5.5. In order to avoid the problem of multicorrelation among offensive and defensive strategic management practices, only defensive strategy variables (information restriction, control constriction and downscaling operations) were utilized as primary explanatory variables. The choice of whether to use offensive or defensive challenges was immaterial to the results obtained as will be seen later.

Prior to performing the regression analysis, the study sought to understand the nature of correlation the existed between each of the defensive strategies and business performance. This was done through the computation of the bivariate Pearson correlation coefficients displayed in Table 14 below. The results show that business performance was negatively correlated with information restriction and control constriction. Despite being statistically significant at 1% level of significance, the negative correlation between business performance and control constriction was weaker with a coefficient of -0.170. On the contrary, the study finds that scaling down of business operations was positively correlated with business performance and strongly so.

Table 13: Bivariate Pearson Correlation Matrix

	Business Performance	Information Restriction	Control Constriction	Downscaling Operations
Business Performance	1			
Information Restriction	-0.886***	1		
Control Constriction	-0.170***	0.188***	1	
Downscaling Operations	0.675***	-0.663***	-0.033	1

***. Correlation is significant at 0.01 level (2-tailed)

With the correlation analysis above pointing to the existence of linear association between business performance and the three forms of defensive strategic management practices, there was basis for the performance of regression analysis. In addition to the above explanatory variables, the study also included respondent-specific and firm-specific characteristics of age, gender, education level, business formality, years of operation, number of employees and annual revenue.

Apart from the age variable which was collected in its continuous form, all the respondent-specific and firm-specific characteristics entered the model as dummy variables that were dichotomous in nature. In the creation of these dummy variables, male respondents, respondents without tertiary level education, businesses registered with PACRA, businesses with up to 5 years of operation, businesses with less than 3 employees and businesses with annual turnover/revenue were assigned values of 0 while the opposite of the outlined categories were assigned values of 1. Categories with values of 0 also acted as references in the interpretation of coefficients of those assuming a value of 1.

The results for the multiple regression analysis are displayed in Tables 15 and 5.12, respectively. Given that the probability value associated with an F-statistic of 92.07 was small at 0.000, results in the Analysis of Variance (ANOVA) table reveal that the collective influence of the regression model independent variables was statistically significant. Particularly, the adjusted coefficient of determination ($\boldsymbol{R^2}$) show that all the model independent variables explain 81.8% in relative business performance of surveyed SMEs.

Table 14: Multiple Regression ANOVA Results

Source of Variation	Sum of Squares	df	Mean Square	F-Statistic	Sig.
Regression	210.669	10	21.067	92.070	0.000
Residual	43.932	192	0.229		
Total	**254.601**	**202**			

$$\boldsymbol{Adjusted\ R^2 = 0.818}$$

Although the collective influence of the model variables was statistically significant, the effects of the individual variables varied with some having a meaningful impact while others were statistically unimportant in influencing the dependent variable. Particularly, and everything else being equal, the study finds that respondent and business-specific variables had no statistically significant effect on SMEs relative performance during the Covid-19 pandemic crisis considering that their respective probability (sig.) values were above the 0.05 critical value.

As regards strategic management practices adopted by SMEs during the crisis, the study finds that being restrictive in information gathering and processing was detrimental to performance. While the same is seemingly the case for centralizing the control of decision making in view of a negative coefficient on the control constriction variable, the result is not statistically supported. Contrary to the foregoing, results in Table 16 show that those that decided to scale down operations in response to the sour business environment performed relatively better than their counterparts that upscaled. Specifically, a one unit increase in the factor score for scaling down operations was associated with a 0.22-point increase in the relative business performance factor score.

Table 15: Multiple Regression Results

Variable	Coefficient	Sig	VIF
Constant	0.075	0.730	-
Information Restriction	-0.721	0.000	1.92
Control Constriction	-0.031	0.326	1.11
Downscaling Operation (Threat Control)	0.219	0.000	1.93
Age	0.000	0.967	1.08
Gender (Ref=Male)			
Female	0.006	0.934	1.09
Formality (Ref= Registered with PACRA)			
Not Registered with PACRA	-0.101	0.233	1.23

Education (Ref=No Tertiary Education)			
With Tertiary Education	-0.064	0.450	1.07
Years of Business Operation (Ref=Less than 5)			
At Least 5 Years	0.010	0.902	1.07
Number of Employees (Ref=Less than 4)			
At Least 4	-0.131	0.081	1.17
Annual Revenue (Ref=At Most ZMW 600,000)			
Over ZMW 600,000	0.042	0.572	1.23

On the basis of the results in 16, the study fails to reject the hypotheses that information restriction and threat control had a statistically significant influence on the performance of the surveyed SMEs during the Covid-19 pandemic crisis. On the other hand, the hypothesis control constriction had an influence on business performance is rejected.

5.8 Chapter Summary

The chapter implemented the methodological techniques detailed in the preceding chapter and presented the results of the study. Predominantly from the informal sector, it was noted that nearly 80% of the surveyed SMEs had been in operation for at least five years, 61.2% of them had a maximum of 3 employees and 51.6% reported an annual turnover/revenue of ZMW600,000 or less. Using a simple majoritarian rule, the results show that these SMEs exhibited threat rigidity tendencies of information restriction, operational downscaling and control constriction with the first two having had an influence on their eventual performance.

CHAPTER 6

DISCUSSION AND CONCLUSIONS

6.1 Introduction

With the analysis in the previous chapter providing answers to the research questions, the current chapter offers a discussion of the findings and the overall conclusions of the study. The discussion compares the study's findings with what is existing in literature while also attempting to explain some of the underlying reasons behind the observed findings by combining historical perspectives and results from the study's qualitative data. Meanwhile, the conclusion summarizes the study in terms of the objectives, key findings, hypothesis test results, recommendations, limitations and suggestions for future research undertakings.

6.2 Discussion of Findings

6.2.1 Strategic Management Practices Adopted by Zambian SMEs during the Covid-19 Pandemic

Irrespective of the size, strategic management is widely considered as a pillar for establishing the direction of business entities and, therefore, shaping the actions taken under different circumstances. During crises, specific strategic management practices adopted by business tend to gravitate towards those that help in building resilience (Boin & Van Eeten, 2013; Khanzad & Gooyabadi, 2021).

Given the foregoing, the study undertook to understand different strategic management practices adopted by retail sector SMEs in Zambia in order to navigate through the Covid-19 pandemic. The study finds that SMEs adopted a range of different management strategic practices. The study notes that the share of surveyed SMEs who reported having practiced information restriction, scaled down operations and restricted the control of their business to top management stood at 58%, 52.9% and 51.5%, respectively.

Using a simple majoritarian rule, the foregoing implies that retail SMEs in Lusaka reacted to the Covid-19 defensively as far as strategic management practices were concerned in line with the predictions of the Threat Rigidity Theory (Staw, et al., 1981). Besides theory, there a number of empirical studies that support the results of this paper (Coyne & Coyne, 2008; Gulati, et al., 2010;

Lim, et al., 2020; Rodrigues, et al., 2021; Govindarajan, et al., 2021; Kamphuis, et al., 2012). For example, Kamphuis et al. (2012) finds that when faced with threats, businesses tend to experience restrictions in information processing, assume more controlling leadership, engage less in group discussions, and also exhibit a reduction in coordinating and supporting behavior.

Given that crises usually create unprecedented unpredictability in so far as the future path of the business environment is concerned (Brown & Rocha, 2020), two reasons have been advanced for the defensive reaction of business entities to events that threaten their operations. First, being defensive entails preserving the value of business and thus avoiding further losses (Klyver & Nielsena, 2021). Second, and from a psychological perspective, being defensive finds merit in the fact that individuals' priority when hit by a crisis is basic safety and survival (CDC, 2019) and, as such, this applies to decisions they make on behalf of organizations they operate.

In addition to the above generic explanations to the findings, the study asked the participants of the study to provide explanations behind their strategic management behaviors. The results for those that reported being defensive on at least two of the three dimensions (information restriction, operational scale alteration and control constriction) studied in this paper are displayed in Table 17 below. The textual data was analyzed using thematic and content analysis approaches. The former used in grouping the reasons for strategic behavior choices while the latter helped in identifying the frequency with which a particular theme (or reason) appeared in the furnished responses.

Among the reasons cited, insufficient demand and limited access to (and delayed delivery of) imported supplies topped the list, having been mentioned or implied 43 and 23 times. Others did indicate intentions of minimize losses (this was more prevalent among those that had to let go of some of the employees) and fear of the unknown (not knowing how severe the pandemic would negatively affect their operational environments. Beyond their voluntary actions, as many as 8 SMEs mentioned government directives as the reason for the defensive reaction to the pandemic-related crisis

Table 16: Distribution of Reasons Why SMEs Reacted Defensively to the Covid-19 Crisis

Theme (Reason for Strategic Management Action)	Frequency
Insufficient demand	43
Limited access to imported supplies	23

Loss minimization	17
Fear of the unknown	11
Government directives	8
Operational model rigidity	3

Despite the simple majoritarian rule pointing to a conclusion of surveyed SMEs adopting defensive management practices in reaction for to the Covid-19 pandemic crisis, the proportion of those that behaved otherwise (offensive) was quite high in excess of 40% in all the three dimensions of focus. Generally, this agrees with the findings of Stephan et al. (2021) who note that 39.4% of surveyed 5,206 SMEs from 23 countries responded to the Covid-19 pandemic offensively and were able to identify opportunities housed within the pandemic woes. Although to a lower extent, there are other studies that observe that some SMEs approach crises offensively (Teece, 2007; Alessandri, et al., 2014; Saebi, et al., 2017; Shi, et al., 2017).

The reasons for their strategic management choices were also analyzed in a similar manner as above and the associated results are displayed in Table 18 below. This analysis was restricted to those entities that behaved offensively to at least two of the three dimensions under consideration. Availability of technological enablers was by far the most cited reason among those that opted to adopt offensive strategic management practices with 56 mentions followed by the need to survive the crises period with 14 mentions. Some took advantage of the proliferation of companies offering delivery services while others were pushed by the persistence of restrictive containment measures the government put in place.

Table 17: Distribution of Reasons Why SMEs Reacted Offensively to the Covid-19 Crisis

Theme (Reason for Strategic Management Action)	**Frequency**
Availability of technological enablers	56
Need for survival	14
Increase in suppliers of delivery services	7
Persistence of government's containment measures	6

6.2.2 Nature of Adopted Strategic Management Practices and Business Performance

Apart from identifying the adopted strategic management and their nature (offensive or defensive), the study undertook to establish whether the nature of the adopted approaches mattered more than

the other in influencing business performance. Against a number of empirical investigations that find a positive relationship between being offensive and business performance (Stoker, et al., 2018; Osiyevskyy, et al., 2020; Miocevic, 2021; Klyver & Nielsena, 2021; Stephan, et al., 2021; Garretsen, et al., 2022), the results in this paper are mixed.

That is, some dimension of offensive strategic management practices that supported superior business performance while others did not. On one hand, and conditional on firm and respondent specific characteristics, SMEs who resorted to downscaling their operations were found to have performed better than their counterparts who did not or did the opposite. On the opposite end, those that chose to restrict information pursuit (restricting information search and processing to known horizons while discarding information related to unknown territories) performed worse than those that pursued knowledge generation. Meanwhile, neither control constriction nor control expansion mattered in business performance during the pandemic.

The foregoing findings have important implications to SMEs especially in times when their operating environment is characterized by a crisis. First, the optimal strategic management strategies for navigating challenging environments may need to have a mix of offensive and defensive actions. Gulati et al. (2010) who studied strategic responses of businesses who faced three global srecessions between 1980 and 2002 come to a similar conclusion. Particularly, the authors find that those that cut costs in order to survive today while simultaneously investing for tomorrow's growth have the highest chance of outperforming peers.

Second, and given the preceding, the findings of this study imply that SMEs need to be deliberate in identifying which dimensions of their business need offensive reactions and which ones need defensive reactions. In many cases, the former is needed for fully exploiting the upside potential (opportunities) presented by a crisis while the latter is for minimizing the impact of the associated downside risks.

6.3 Conclusions

Given the immediate past Covid-19 pandemic which resulted in immense economic consequences as well as marked human loss, the study undertook to establish the strategic management practices adopted by Zambian SMEs during the Covid-19 pandemic and how they affected their

performance. With particular focus on retail SMEs in Lusaka province in Zambia, it sought to address the three specific objectives as presented below;

i. To establish what strategic management practices that SMEs in Zambia adopted in order to navigate challenges associated with the Covid-19 pandemic.
ii. To ascertain the extent to which SMEs' strategic management reactions were offensive or defensive towards the Covid-19 pandemic.
iii. To state how strategic management practices adopted by Zambian SMEs during the Covid-19 pandemic affected their performance.

To help with meeting the above, the study adopted a pragmatic research approach which permits the use of mixed methods research design. With quantitative data being of primary focus, it successfully collected data from 333 SMEs who had in operation for at least 4 years at the time of the survey.

The mean age of the respondents was about 41 years and 53.1% of them had tertiary level education. Slightly over 66% of the businesses were male-owned and 7 every 10 of the surveyed SMEs were operating informally (not registered with PACRA). Further, over 60% of them had employees up to a maximum of 3 and about half of them had an annual turnover of no more than ZMW 600,000.

Considering that data on strategic management practices and business performance were collected using a Likert scale questionnaire, they were initially subjected to Exploratory Factor Analysis (EFA) in order to examine the validity and reliability of the scale of measurement as well as uncovering its underlying structure in terms of the dimensionality of the factors.

EFA also enabled the computation of factor scores, single composite indices for each respondent and on each factor, which are normally distributed with a mean of zero and a variance of one. Leveraging on the signs (positive or negative) of the factor scores, percentages of SMEs that adopted defensive (information restriction, control constriction and threat rigidity) and offensive (knowledge expansion, control expansion and threat flexibility) strategic management practices were computed.

Using a simple majoritarian rule, the finds that surveyed SMEs adopted defensive strategic management practices in their attempt to navigate through the challenges that were presented by

the Covid-19 pandemic. This was done through limiting their scope of information search and processing, downscaling their operation as well as control constriction. These choices were largely influenced by insufficient demand for their products, limited access to import markets, desire for loss minimization and fear of the unknown.

On further investigating whether SMEs were justified in their preferences for execution of defensive strategic management actions as far as performance was concerned, the study found mixed results. Particularly, those who chose to scale down their operations were found to have performed better than their counterparts who did not. On the contrary, those that decided to restrict their scope of information search and processing had poorer performance outcomes than those that opted to do the opposite.

Away from wide concentration on the negative impact of the Covid-19 pandemic, the study's main contribution was uncovering copying mechanisms of SMEs as far as strategic management practices were concerned as well as how those mechanisms affected their performance. From both the practical and academic perspectives, it is hoped that the findings in the study help in providing an understanding on how SMEs respond to crisis environments. Theoretically, the study has shown that business entities employ a combination of flexibility and rigidity for better performance outcomes.

Table 18 below summarizes the results of the hypotheses stated in chapter 3.

Table 18: Summary of Hypothesis Testing Results

SN	Hypotheses		Conclusion
1	H_0	The crisis associated with the Covid-19 pandemic did not information restriction	The null hypothesis is not rejected as majority (58%) of surveyed SMES reported having practiced information restriction
	H_1	The crisis associated with the Covid-19 pandemic createed information restriction	
2	H_0	The crisis associated with the Covid-19 pandemic created threat control	The null hypothesis is not rejected as majority (52.9%) of surveyed SMEs reported having scaled down operations (threat control action) in response to the Covid-19 pandemic
	H_1	The crisis associated with the Covid-19 pandemic did not create threat control	
3	H_0	The crisis associated with the Covid-19 pandemic created control constriction	The null hypothesis is not rejected as majority (51.5%) of surveyed SMEs reported having practiced control constriction
	H_1	The crisis associated with the Covid-19 pandemic did not create control constriction	
4	H_0	Information restriction did not have an effect on the performance of SMEs during the Covid-19 pandemic	The null hypothesis is rejected as SMEs who responded to the pandemic with information

	H_1	Information restriction affected the performance of SMEs during the Covid-19 pandemic	restricted performed poorer than their counterparty who did not
5	H_0	Threat control did not have an effect on the performance of SMEs during the Covid-19 pandemic	The null hypothesis is rejected as SMEs who took control of the threat by scaling down operations performed better than those that did not
	H_1	Threat control affected the performance of SMEs during the Covid-19 pandemic	
6	H_0	Control constriction did not have an effect on the performance of SMEs during the Covid-19 pandemic	The null hypothesis is not rejected as there was no difference in the performance between those who adopted control constriction and those who did not
	H_1	Control constriction affected the performance of SMEs during the Covid-19 pandemic	

6.4 Recommendations

On the basis of the findings of the summarized in the foregoing section, the following recommendations are made;

i. SMEs need to cultivate a proactive approach as regards scanning their operating environment for opportunities that may come along with challenges driven by crises.
ii. Deliberate efforts are needed in appropriately identifying business areas that may require different strategic management reactions as regards being offensive or defensive.
iii. For each strategic management reaction, SMEs constant and continuously monitoring and evaluation for purposes of establishing whether the chosen strategies are resulting in intended outcomes or not.

6.5 Limitations and Suggestions for Future Research

Despite attempts to keenly follow established scientific methods that led to the generation of the findings of this study, there are a number of limitations that consumers of the report need to be watchful of. Key ones are as below;

i. Although a probabilistic sampling technique was used in generating the participating SMEs in this study, generalization of the findings is only applicable to the population from where the surveyed SMEs were drawn (Lusaka SMEs operating in the retail space).
ii. The study was based on a cross-sectional design which only allows for the capturing of the state of the world at the time of collecting data only. As such, these results may not be time invariant in terms of their applicability because the SME universe is time-dynamic.

The above limitations notwithstanding, the study offers important aspects of SME strategic management practices undertaken during times of crises. For future research, it would be interesting to replicate a similar study in such sectors as manufacturing or services for purposes understanding the behaviors that obtained in those spaces.

6.6 Chapter Summary

The study investigates the strategic management practices of Zambian SMEs during the Covid-19 pandemic, focusing on the retail sector in Lusaka. It identifies a predominant defensive approach among SMEs, characterized by information restriction, scaled-down operations, and control constriction. However, a significant minority of SMEs exhibit an offensive strategy, seizing opportunities amidst the crisis. The nature of strategic management practices influences business performance, with downsizing operations positively impacting performance and restricting information pursuit negatively affecting it. The study emphasizes the importance of a balanced approach, combining offensive and defensive strategies tailored to specific business dimensions. Recommendations include cultivating a proactive approach, identifying appropriate strategic management reactions, and continuous monitoring and evaluation. Limitations include the study's focus on a specific geographic area and sector, and future research could explore SME behaviors in different contexts. Overall, the study contributes to understanding SME responses to crises and offers practical implications for strategic management.

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APPENDICES

Appendix 1 - Questionnaire

The University of Zambia

Graduate School of Business

SME Strategic Management Practices during the Covid-19 Pandemic in Zambia: An Empirical Test of the Threat Rigidity Hypothesis

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Belinda Miyanda Muyuni

MBA General

For more information or any queries, kindly get in touch on 0977 315995

Dear Respondent,

I am a student at the University of Zambia in my final stage pursuing an MBA qualification. As partial fulfillment for the award of a Master's degree, I am conducting a study titled: "***SME Strategic Management Practices during the Covid-19 Pandemic in Zambia: An Empirical Test of the Threat Rigidity Hypothesis."***

You have been randomly sampled to provide information for the topic indicated above. The information being collected is purely for academic purposes as such, it will be treated with maximum confidentiality. Subsequently, you are not supposed to indicate your name or any personal information that can lead to revealing of your identity.

Your co-operation will be greatly appreciated.

For more information or any queries, kindly get in touch with the following:

Project Supervisor: Prof. Jackson Phiri (0966 693 731)

SURVEY QUESTIONNAIRES

PART ONE: BACKGROUND CHARACTERISTICS

1. What is your age in completed years? ……

2. What is your gender?

   Male ☐

   Female ☐

3. What is your highest level of education?

   Up to Primary School ☐

   Secondary School ☐

   Tertiary Certificate/Diploma ☐

   Bachelor's Degree/its Equivalency ☐

   At Least Master's Degree ☐

4. Was your business in existence before 2020?

   Yes ☐

   No ☐

5. Do you have operations in Lusaka Province?

   Yes ☐

   No ☐

6. For how long has this business been in operation?

   Less than 5 years ☐

   Between 5 and 6 years ☐

   Between 7 and 8 years ☐

   Between 9 and 10 years ☐

   More than 10 years ☐

7. How many employees does your business have including yourself?

   Just myself ☐

   Between 2 and 3 ☐

   Between 4 and 5 ☐

Between 6 and 7 ☐

More than 7 ☐

8. What is your firms average annual revenue?

Below ZMW 400,000 ☐

Between ZMW 400,000 and ZMW 600,000 ☐

Between ZMW 600,001 and ZMW 800,000 ☐

Between ZMW 800,001 and ZMW 1,000,000 ☐

More than ZMW 1,000,000 ☐

9. Is your business registered with PACRA?

Yes ☐

No ☐

PART TWO: FIRM BEHAVIOR DURING THE COVID-19 PANDEMIC

A: Information Restriction

A1: Using a rating scale from the lowest point of 1 to the highest point of 5, please select the number that indicates your level of agreement or disagreement with each of the following statements.

Key: 1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree

ID	Statement	1	2	3	4	5
1	During the Covid-19 pandemic, quests for new information related to the crisis were curtailed					
2	During the Covid-19 pandemic, the flow of information in our company was limited					
3	During the Covid-19 pandemic, interactions with others to acquire new information were minimized					
4	During the Covid-19 pandemic, we held the view that continued search for information regarding the business environment was not good for our business					

A2: Given your responses in A1 above, what are the factors that influenced your actions?

B: Knowledge Expansion

B1: Using a rating scale from the lowest point of 1 to the highest point of 5, please select the number that indicates your level of agreement or disagreement with each of the following statements.

Key: 1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree

ID	Statement	1	2	3	4		5
1	During the Covid-19 pandemic, there was increased quests for new information related to the crisis						
2	During the Covid-19 pandemic, there was improved flow of information in our business						
3	During the Covid-19 pandemic, interactions with others for purposes of acquiring new information were encouraged						
4	During the Covid-19 pandemic, we always kept an eye out for new business ideas when looking for information						

B2: Given your responses in B1 above, what are the factors that influenced your actions?

C: Control Constriction

C1: Using a rating scale from the lowest point of 1 to the highest point of 5, please select the number that indicates your level of agreement or disagreement with each of the following statements.

Key: 1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree

ID	Statement	1	2	3	4		5
1	During the Covid-19 pandemic, employees promptly carried out instructions issued by people in management						
2	During the Covid-19 pandemic, employees that deviated from instructions issued by people in management were quickly corrected						
3	During the Covid-19 pandemic, activities of the employees were closely monitored to make sure they were within the expected parameters						
4	During the Covid-19 pandemic, management made most of the decisions for employees						
5	During the Covid-19 pandemic, employees were required to frequently provide detailed updates						

C2: Given your responses in C1 above, what are the factors that influenced your actions?

D: Control Expansion

D1: Using a rating scale from the lowest point of 1 to the highest point of 5, please select the number that indicates your level of agreement or disagreement with each of the following statements.

Key: 1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree

ID	Statement	1	2	3	4	5
1	During the Covid-19 pandemic, employees were encouraged to make decisions for themselves					
2	During the Covid-19 pandemic, decisions were made through consensus with the rest of employees					
3	During the Covid-19 pandemic, all employees were involved and well-informed about organizational issues that affected them					
4	During the Covid-19 pandemic, employees were encouraged to participate in most decision-making actions					
5	During the Covid-19 pandemic, new ideas from the team were regularly adopted					

D2: Given your responses in D1 above, what are the factors that influenced your actions?

E: Scaling Down Operations

E1: Using a rating scale from the lowest point of 1 to the highest point of 5, please select the number that indicates your level of agreement or disagreement with each of the following statements.

Key: 1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree

ID	Statement	1	2	3	4	5
1	During the Covid-19 pandemic, deliberate actions were taken to reduce our scale of operation					
2	During the Covid-19 pandemic, deliberate actions were taken to reduce the number of employees					
3	During the Covid-19 pandemic, deliberate actions were taken to scale down skills development activities for employees					
4	During the Covid-19 pandemic, deliberate actions were taken to reduce costs associated with advertising					
5	During the Covid-19 pandemic, efforts aimed at development of new products/services were postponed					
6	During the Covid-19 pandemic, we did not see any benefit in trying to devise new ways of delivering our products/services					

E2: Given your responses in E1 above, what are the factors that influenced your actions?

F: Scaling Up Operations

F1: Using a rating scale from the lowest point of 1 to the highest point of 5, please select the number that indicates your level of agreement or disagreement with each of the following statements.

Key: 1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree

ID	Statement	1	2	3	4	5

1	During the Covid-19 pandemic, deliberate actions were taken to enhance our scale of operation					
2	During the Covid-19 pandemic, deliberate actions were taken to increase the number of employees					
3	During the Covid-19 pandemic, deliberate actions were taken to promote skills development activities for employees					
4	During the Covid-19 pandemic, deliberate actions were taken to improve our advertising campaigns					
5	During the Covid-19 pandemic, efforts aimed at development of new products/services were postponed					
6	During the Covid-19 pandemic, we saw it beneficial to devise new ways of delivering our products/services					

F2: Given your responses in F1 above, what are the factors that influenced your actions?

PART THREE: PERFORMANCE OF BUSINESSES DURING THE COVID-19 PANDEMIC

Using a rating scale from the lowest point of 1 to the highest point of 5, please select the number that indicates your level of agreement or disagreement with each of the following statements.

Key: 1 = Strongly Disagree | 2 = Disagree | 3 = Neutral | 4 = Agree | 5 = Strongly Agree

ID	Statement	1	2	3	4	5
1	Compared to our expectations, our revenue performance during the Covid-19 pandemic was worse					
2	Compared to our expectations, we struggled to have a satisfying number of customers for our goods/services					
3	Our cash flows during the Covid-19 pandemic were worse than we expected					
4	Compared to our expectations, our costs were too high to be justified by our overall business performance during the Covid-19					
5	Our profits/losses during the Covid-19 pandemic were worse than we expected					

The End.

Appendix 2: Introduction letter

Appendix 3: Publications

Muyuni, B. M., & Phiri, J. (2024). SME Strategic Management Practices during the COVID-19 Pandemic in Developing Countries: An Empirical Test of the Threat Rigidity Hypothesis. *Open Journal of Business and Management, 12, 540-562*. https://doi.org/10.4236/ojbm.2024.121033