

THE EFFECT OF STOCK MANAGEMENT ON THE FINANCIAL PERFORMANCE OF SMES IN THE MOBILE INDUSTRY IN CAPE TOWN, SOUTH AFRICA

By

MARTHAR BGANYA

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Supervisor: Prof. L. Obokoh

Co-supervisor: Dr O. Chakabva

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ABSTRACT

SMEs operating in the mobile industry in South Africa are perceived to be underperforming, partly because of poor stock management. The main aim of this study was therefore to investigate the implications of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa. To address the objectives of the study, a questionnaire survey was undertaken with a sample of 50 SMEs in the mobile industry to obtain quantitative data. The data were analysed using descriptive and inferential statistics through SPSS and Microsoft Excel power pivot. The data were then interpreted using contingency theory in order to acquire a better knowledge of the subject.

The results of the study revealed that the majority of sampled SMEs prepared stock budgets before purchasing stock, and that the most commonly used stock management technique was the economic order quantity. The findings also revealed that inexperienced personnel, a lack of technology, poor store records and inadequate funds were the factors most commonly identified by respondents as hindering the effectiveness of stock management. The study suggests that to tackle the root causes of poor financial performance among South African SMEs in the mobile industry, effective stock management could be crucial.

The study not only fills a gap in the literature about the effects of stock management on the financial performance of SMEs but also adds invaluable insights into stock management in SMEs. The latter could serve to inform future government initiatives aimed at improving their performance. The researcher maintains that owners and managers of SMEs in the mobile industry should commit fully to sound stock management practices in their businesses to improve their financial performance. The study concludes that to reduce costs, SMEs should purchase stock from device manufacturers, using the just-in-time technique, as well as liaise with suppliers to adopt the consignment stock method.



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DEDICATION

I dedicate this research study to my parents, the Revd F. Bganya, and Mrs T.C. Bganya. They have always encouraged me to pursue my dreams, and motivated me to strive for more and never stop learning.



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GLOSSARY

Acronym	stands for	
4IR	Fourth Industrial Revolution	
ABC	Activity-based costing	
CPUT	Cape Peninsula University of Technology	
DER	Debt to equity ratio	
EDI	Electronic data interchange	
EOQ	Economic order quantity	
EPOS	Electronic point of sale	
ERP	Enterprise resource planning	
FIFO	first-in, first-out	
GDP	Gross Domestic Product	
GP	Gross profit	
HDC	Degrees Committee	
JIT	Just in time	



LIFO	last-in, first-out	
MOQ	Minimum order quantity	
MVNOs	Mobile virtual network operators	
NP	Net profit	
REC	Research Ethics Committee	
SA	South Africa	
SARS	South African Revenue Services	
SCM	Supply chain management	
SMEs	Small and medium enterprises	
SMMEs	Small medium and micro enterprises	
SPSS	Statistical Package for Social Sciences software	
STG	Standard treatment guidelines	



1 CHAPTER 1: INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

Stock is a lifeline in most commercial organisations, particularly in stock-intensive industries such as the mobile industry. The mobile industry is a component of the telecommunications industry that focuses on cell phones but also includes electronics, computer hardware and software, as well as wireless and remote technologies used in a diversity of portable devices (Akers, 2020; McMahon, 2020). In the mobile industry, stock ordering, storage and delivery are critical complementary factors that require proper forecasting, control and monitoring. If an organisation can rapidly obtain cash out of its stock without losing its value, the stock improves the business's financial performance. However, if stock management is neglected and stock turnover is very low, serious long-term profitability issues will arise that may lead to liquidity problems (Radasanu, 2016; Otuya & Eginiwin, 2017). Sound stock management is therefore paramount.

This study investigates the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa. The purpose of this opening chapter is to describe the research topic and orientate the reader to its context.

1.2 Background to the research problem

The South Africa (SA) mobile industry is one of the most progressive and advanced industries in the African continent (Businesstech, 2017; Gaille, 2019). South Africa has the most extensive mobile phone presence in Africa, with productive development of internet connectivity and infrastructure growth since 2008 (Mpwanya & Van Heerden, 2015; Businesstech, 2017; Gaille, 2019). The Covid-19 pandemic has accelerated the widespread adoption of mobile data and digital technologies in SA and globally, as remote working and remote learning have become the new norm (Faku, 2020; Hern, 2020; Ndlazi, 2020). Mobile industry penetration and development have created jobs in South Africa as well as new business opportunities for small and medium



enterprises (SMEs), thereby improving infrastructure, productivity and financial performance (Samakosky, 2016; Chikamba, 2019; Elliott, 2019).

Yet despite the importance of the mobile industry to the South African economy, firms operating in this industry are struggling to survive, especially those classified as SMEs. Their failure rate in SA is very high, ranging from 70 to 80% (Fatoki, 2014; Leboea, 2017). This high failure rate undermines the potential of the mobile industry to make a significant contribution towards economic growth, the creation of jobs and the reduction of poverty.

Even though the causes of the high failure rate of SMEs operating in the mobile industry are multiple, one that is often discussed is inefficiency in respect of stock management. A study by Mpwanya and Van Heerden (2017) found that SME mobile providers neglect the management of stock (i.e., mobile phones, starter packs, routers and network equipment) and often take a long time to sell their stock, leading to a decline in profit and even insolvency. This situation was observed by the researcher when she was working as an accountant for an SME in the mobile industry. This SME had been growing rapidly with an average of 1500 contract cellphone activations each month, but kept on battling with liquidity and profitability problems. The assumption was that, because of the high number of activations per month, the SME may have been acquiring and holding excessive stock. Studies by Kanguru (2016) and Radasanu (2016) have revealed that excess volumes of stock negatively affect the financial performance of a business.

In the quest for a sustainable solution to the poor financial performance and the high failure rate of SMEs operating in the mobile industry in South Africa, a focus on stock management could therefore be key. Despite this, little research has been conducted on the management of stock within SMEs operating in the mobile industry of SA. Most studies that have investigated stock management have focused on SMEs in the manufacturing sector (Shin et al., 2015; Otuya & Eginiwin, 2017; Orobia et al., 2020). In order to address this knowledge gap, it is vitally important to investigate the effect of stock management on the financial performance of SMEs operating in the mobile industry in Cape Town, South Africa.



1.3 Rationale of the study

Most studies of the effect of stock management on financial performance have been conducted in countries other than South Africa. Moreover, research has tended to focus on large organisations, particularly those in the manufacturing industry (Shin et al., 2015; Orobia et al., 2020). SMEs in the mobile industry form a retail component with unique features that distinguish the stock management information required by managers from that required in other industries. A unique attribute of the sector is that it provides clients with direct access to virtual commodities, making possible a better customer experience than manufacturers and wholesalers can offer (Paul et al., 2012; Tseng & Yazdanifard, 2015; Simon, 2017).

Another feature that distinguishes these SMEs is that they sell their products to consumers in small volumes as per requirement. Customers can communicate directly with sales representatives using a variety of customer applications. When compared to other sectors, shopping is an easier and more enjoyable experience for consumers. In addition, dealing with SMEs in the mobile industry also surpasses customer expectations as they enhance brand loyalty through packaging, personal shopping consultations and other encounters (Paul et al., 2012; Simon, 2017; Farfan, 2020).

SMEs operating in the mobile industry sector are increasingly critical to the South African economy in terms of job creation and support, as learning and working from home become a reality for many (Faku, 2020; Hern 2020; Ndlazi, 2020). Yet the uniqueness of the sector may render the kind of stock management applied in other sectors unsuitable, and given that this is sector is one of few continuing to experience rapid growth, there is an urgent need to investigate the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa.

1.4 Statement of research problem

1.4.1 Research Problem

Recent SME landscape studies conducted by Anon. (2019a) and Thulo (2019) have shown that most SMEs in SA do not survive more than five years because of the many obstacles they face in



respect of financial resources. For SMEs in the mobile industry, the high cost of stock such as cell phones, starter packs, data and routers, as well as their ever-growing operational expenditure (Opex), including stock-related costs, conduce to stagnation in financial performance (Mpwanya & Van Heerden, 2015; Lang, 2018).

It was observed that despite the advances made by the holding company and the increase in its client database, the SME in question was facing unstable liquidity and problems with profitability. The liquidity and profitability problems may have been caused by holding excessive stock, since devices that are stocked are imported from other countries, a situation that presents logistics challenges and incurs related costs (e.g., storage fees and insurance). Studies by Kanguru (2016) and Radasanu (2016) argue that excess volumes of stock lead to high holding costs, which include insurance, risk of obsolescence, storage, theft and shrinkage, while tying up working capital that could be productively invested elsewhere.

Although there has been research in other sectors on the relation between stock management practices and poor financial performance and failure among SMEs (e.g., Ahmed et al., 2015; Shin et al., 2015; Otuya & Eginiwin, 2017; Orobia et al., 2020), little has been done on the management of stock by SMEs in the mobile industry in SA. The problem investigated by this study is therefore the perception that SMEs operating in the mobile industry in South Africa are underperforming (at least, in part) because of a lack of sound stock management.

1.4.2 Statement of objectives

The study's primary objective is:

To investigate the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa.

1.4.3 Sub-objectives

The following sub-objectives were established in pursuit of the study's primary objective;

To establish the techniques used for forecasting the stock purchases of SMEs in the mobile industry in Cape Town, South Africa



- ➤ To determine the stock management measures used by SMEs in the mobile industry of Cape Town for controlling and monitoring stock
- > To determine the factors that hinder the effectiveness of stock management among SMEs in the mobile industry in Cape Town
- > To establish the correlation between stock turnover and financial performance (i.e., liquidity and profitability) of SMEs in the mobile industry in Cape Town.

1.5 Research question and sub-questions

1.5.1 Research question

The core research question is:

❖ What are the effects of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa?

1.5.2 Sub-Questions

The following sub-questions were formulated to assist the researcher to answer the research question:

- ➤ What are the techniques used in forecasting stock purchases by SMEs in the mobile industry in Cape Town, South Africa?
- ➤ Which measures for controlling and monitoring stock are used by the SMEs in the mobile industry in Cape Town?
- ➤ What factors, if any, hinder the effectiveness of stock management among SMEs in the mobile industry of Cape Town?
- ➤ To what extent does stock turnover affect the financial performance (i.e., liquidity and profitability) of SMEs in the mobile industry in Cape Town?

1.6 Overview of the research methodology

1.6.1 Research Paradigm

To fulfil the study's primary purpose, a positivist paradigm was used to determine quantitatively how key variables correlate, shape events, and produce results. A positivist approach was



adopted because it maintains that reliable information can be established directly from observation or experimenting with natural phenomena by empirical means (Antwi & Hamza, 2015). The positivist paradigm asserts that reality is objective and can be quantified using techniques that are unrelated to the researcher or his or her research tools (Collis & Hussey, 2013:44). The positivist paradigm was adopted rather than the interpretative paradigm as it is more relevant to the quantitative aims of this investigation.

1.6.2 Research approach

In line with the positivist paradigm adopted in the study, a quantitative research method was used to address the research problem. Antwi and Hamza (2015) and Akers (2020) assert that the positivist research paradigm supports a quantitative methodology and is epistemologically objective and value-free. Sheard (2018:429) describes quantitative research as research that deals with numerical information or data that can be converted into numbers when results are recorded.

The intention of employing a quantitative research method in this study was to elicit numerical data on the stock management processes of selected SMEs. The research method enabled the researcher to easily and cost-effectively reach the targeted sample (Etikan et al., 2016). In addition, quantitative research data can be analysed more rapidly because it can make use of statistical software like the Statistical Package for Social Sciences (SPSS) (Rahman, 2017).

1.6.3 Research design

The research design encompasses the research strategies and the methods used for systematically gathering and analysing data (Debose, 2018; Saunders et al., 2019). The research design was based on the principles of causal research. Causal research is effective for ascertaining correlations between variables. It is a highly structured, descriptive research design and is suitable for establishing the effect that an independent variable has on a dependent variable (Pratap, 2019). Since the objective of the study was to evaluate the effect of stock management (independent variable) on the financial performance (dependent variable) of SMEs in the mobile



industry of Cape Town, South Africa, a causal research design was adopted to measure the effect of stock management on the financial performance of SMEs operating in the mobile industry.

1.6.4 Population, sample and sampling method

The research population is the aggregate of individuals from whom a statistical sample pertinent to a given research study can be drawn (Kenton, 2020). The study's target population comprised all the SMEs in South Africa's mobile industry. Through the Bizcommunity online directory, 68 telecoms/mobile industry SMEs were identified, forming the target population (Bizcommunity South Africa, 2020). This number was boosted by the SMEs who were approached, who recommended an additional 30 SMEs operating in the mobile industry that were not on the Bizcommunity database. As a result, the target population expanded to 98 SMEs.

Sampling enables the researcher to acquire sufficient information to address the research question without consulting the whole population (Muhammad et al., 2018). Subject to the criteria of being located in the city of Cape Town and sized according to the South African definition of SMEs, that is, businesses that employ 6 to 250 employees (South Africa, 2019), and taking into account time and cost factors, a sample size of 51% of the population was deemed desirable. Purposive sampling was chosen because it involves selecting a sample from the population that fits the purpose of the study, which helps to answer research questions and achieve the goal of the research (Taherdoost, 2016; Dudovskiy, 2018).

Snowball sampling was used to find the additional 30 SMEs operating in the mobile industry that were not registered on the Bizcommunity database. Snowball sampling is a chain-referral sampling approach whereby one person from a target group refers the researcher to another, who then refers yet another person for as many times as the researcher desires (Beins & McCarthy, 2018:124). The snowball sampling method was employed because only 20 of the 68 SMEs identified from Bizcommunity were based in Cape Town, and 20 participants were fewer than the required minimum of 30 for a quantitative study (Eichler et al., 2018). The study targeted owners, managerial personnel, accountants and stock controllers, all of whom might have been expected to provide significant data to serve the purpose of the study.



1.6.5 Data collection, analysis and interpretation

The data collection instrument used in the study was a survey in the form of a structured questionnaire. Structured questionnaire is also referred to as closed questionnaires; they are a quantitative testing approach typically used in positivist research (Anon., 2016; Trueman, 2020). The survey instrument was chosen for this study because it is not expensive to administer, enables the collection of data from a large number of respondents, and covers a vast range of subjects. They are also convenient in that respondents can be comfortable when filling out the questionnaire in private (McLeod, 2014; Anon., 2016; Trueman, 2020). The structured questionnaire was compiled and designed in accordance with the study's sub-objectives and subquestions. A letter of consent explaining the objectives and importance of the study was attached for respondents' information and signature.

The data collection instrument used was a self-administered, closed-ended questionnaire survey. The researcher collected data through questionnaires handed out or mailed to representatives of SMEs – owners, managers, accountants and stock managers – that is, those involved in making decisions or processing management accounting reports and therefore likely to be well-versed in stock management in their respective enterprises. This method was adopted because it is not expensive to administer, makes it easy to collect information from a huge number of people and allows the researcher to explain the question to the respondents if need be (Anon., 2016; Trueman, 2020). The data collected from the questionnaires was recorded and analysed using the SPSS program. The software helps to ensure the validity and reliability of the input data.

1.7 Ethical considerations

Because the study included human subjects, ethical procedures established by the Cape Peninsula University of Technology's Research Ethics Committee were followed. The following ethical standards were upheld in this research study (cf. Welman et al., 2018; Meagher & Master, 2019):

Confidentiality and anonymity: The respondents who completed the questionnaires remained anonymous. To ensure the security of the participants and the information provided, electronic



data was protected by passwords and no names were included in the discussion of the study results. In addition, all hard copies containing classified information were shredded as soon as possible.

Voluntary participation: The participants participated freely and voluntarily in the research study and were assured that they could withdraw from the study at any point if they wished to.

Informed consent: The respondents in the research study had full ownership of the facts. Before the questionnaires were given to the participants, the consent letter was given to them to read and sign in acknowledgement. The participants were informed and assured that the information gathered would be used only for the study.

Distorting results: No information gathered from the survey and questionnaires has been fabricated, so the results are not skewed. In conducting the research study and in the data analysis and related discussion, the researcher made a concerted effort to achieve the maximum degree of objectivity feasible.

1.8 Delineation of the research

The research study was limited to the selected SMEs in the mobile industry located in Cape Town (according to Ntshonga [2019], conducting a questionnaire survey at Master's level that covers all sectors across the country is simply not feasible).

The following delineation has been applied for valid feedback;

- The respondents were managerial personnel and other decision-makers such as accountants, stock-buyers and stock-controllers since they are engaged in planning or management accounting reporting and are therefore required to have knowledge of stock management in their respective firms.
- The SMEs must have been in business for at least 2 years in the mobile industry and employ between 6 and 250 employees.



1.9 Significance of the research

The findings of the study will be useful in formulating and implementing policies that can assist in the efficient management of stock for SMEs operating in the mobile industry, as well as for other small and medium-sized retail businesses across the country. Moreover, it will provide insight into stock control measures more generally and contribute to the improvement of profitability and liquidity in SMEs through the process of stock management.

As mentioned before, several studies have been conducted on the effect of stock management on financial performance in other sectors, but there is a dearth of such research on SMEs operating in the mobile industry in South Africa. The study therefore aims to make a significant contribution to the existing literature.

The results of the study should help SMEs, especially those dealing in the stock-intensive arena, to acquire sound stock management skills and/or seek the services of accounting experts who are more knowledgeable about stock management. Mobile-related commercial organisations in the era of the Fourth Industrial Revolution (4IR) will be able to use the findings of this study to establish more cost-effective strategies.

1.10 Limitations and constraints

The research was restricted to SMEs located in Cape Town, which means that the findings may not be generalisable to all mobile companies in SA. Yet given that little or no research has been carried out on the effects of stock management on the performance of mobile service providers in South Africa, the potential contribution of this study outweighs its limitations.

The study was initially informed by a limited range of research literature, so the researcher had only a few studies with which to compare the findings of this study to assess its external validity. The research study targeted respondents including, SME owners, managers, accountants and stock controllers, who were hesitant to participate in the study due to their hectic schedules. In order to tackle this challenge, in addition to the mail-out of questionnaires, the researcher hand-



delivered questionnaires to some of the respondents. This happened despite the fact that meeting the participants was more difficult due to Covid-19 restrictions, with many of them working from home.

Since questionnaire surveys typically have a low response rate, nonresponse bias occurs, undermining the results' generalisability to the whole population. The questionnaire was designed to be completed quickly in order to mitigate the possibility of a poor response rate through the use of relatively short closed-ended questions. In addition, although meeting the participants was more difficult due to Covid-19 regulations, the researcher interacted with them in person to urge them to finish the survey and clear up any ambiguities.

Some respondents were hesitant to fill out the survey for fear of risking the disclosure of sensitive information. To anticipate that possibility, the researcher purposefully avoided sensitive questions when designing the questionnaire. The researcher also did not ask for direct access to the SMEs' financial records, even though this would have enabled a more accurate assessment of their financial performance than could be achieved by relying on respondents' subjective views.

1.11 Contribution of research

Although, as previously stated, various studies of other sectors (e.g., Ahmed et al., 2015; Shin et al., 2015; Otuya & Eginiwin, 2017; Orobia et al., 2020) have attributed poor financial performance and the high failure rate of SMEs to poor management of stock, little research has been conducted on stock management by SMEs operating in the mobile industry in SA. The studies cited above were done outside of South Africa, used smaller samples, drew samples from other industries or studied larger companies, pursued different objectives, are dated, or reached contradictory conclusions. Given this gap in research, it is not surprising that understanding of the effect of stock management on the financial performance of SMEs operating in the mobile industry of SA is still vague. This study fills this gap in knowledge by investigating the effect of stock management on the financial performance of SMEs in the mobile industry of Cape Town, South Africa. The study seeks to encourage further research by making recommendations for future studies.



1.12 Outline of the dissertation

The dissertation consists of five chapters, as follows:

Chapter One: Introduction to and background of the study: This chapter sketches the background of the study and presents the research topic, as well as the research problem and questions and the study's aims and objectives. The research population and the research methodology used are described. The chapter also considers the limitations and significance of the study.

Chapter Two: Literature review: The second chapter provides a comprehensive review of the relevant available literature on the research topic, identifying such gaps as exist.

Chapter Three: Research design and methodology: The chapter describes in detail the research method, research design, research population, sampling technique, and the data collection instruments used in the study.

Chapter Four: Data analysis and discussion of findings: The chapter analyses, discusses and interprets the survey questionnaire's results.

Chapter Five: Conclusion and recommendations: The chapter presents the conclusions reached and gives some recommendations for further research.

1.13 Chapter summary

This chapter introduced the research study topic by providing a comprehensive overview of its nature and background, and of the kind of enquiry to be undertaken. The chapter has presented the rationale of the study, comprising the research problem, the research question and research objectives. An overview of the methodology used in the study is provided. Also adumbrated are ethical considerations, the significance of the study, its limitations and the contribution that it hopes to make. Finally, a chapter outline of the thesis is presented. The following chapter discusses in detail the literature that the researcher consulted in order to ground the study in the existing research discourse.



2 CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

A comprehensive literature review is conducted in this chapter, providing a thorough-going theoretical understanding of the field of study. The aim of the chapter is to review management literature relevant to the financial performance of a business. In the process, the chapter will identify gaps in the literature concerning the effects of stock management on the financial performance of SMEs, particularly in the mobile industry. The chapter focuses on the insights of decision-makers at SMEs into the effectiveness of their stock management processes and the problems that stand in the way of sound stock management at these SMEs.

Section 2.2 offers a theoretical framework for the investigation based on the contingency theory of management accounting. Then, in Section 2.3, the definition and classification of SMEs are conversed and the importance of SMEs to the SA economy in Section 2.4. Section 2.5 provides an overview of the mobile industry, while in Section 2.6 the concept of stock management is discussed. This encompasses definitions of basic terms like stock and stock management, types of stock management models, stock control systems, factors affecting the effectiveness in stock management of SMEs, and the importance of effective stock management strategies. Section 2.7 considers financial performance, elucidating notions of profitability and liquidity in relation to stock management. Thereafter, Sections 2.8 to 2.10 highlight the management of stock in the mobile industry, review existing studies on stock management as well as stock management and financial performance. Then, in Section 2.11, there is discussion of the gaps in the prior literature on stock management and in Section 2.12, the chapter is summarised and concluded.

2.2 Theoretical framework

According to Maziriri and Mapuranga (2017) and Vinz (2020), a theoretical framework refers to the theory that provides substance and guidance to a proposed investigation, enabling the researcher to interpret, explain and generalise his/her findings in a persuasive manner. Vinz (2020) notes that a theoretical framework defines the research's fundamental concepts, offers connections between them, and describes pertinent theories based on a literature review. The



results of this study will be interpreted using contingency theory in order to gain a better understanding of the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, SA.

2.2.1 Contingency theory of management accounting

Contingency theory is a method for studying organisational behaviour that elucidates how contingent variables such as culture, technology and the exterior environment influence the design and function of organisations. The assumption underpinning the theory of contingency is that no single type of organisational structure applies equally to all organisations in every circumstance (Islam & Hu, 2012; Maziriri & Mapuranga, 2017). Contingency theory, as applied to this study, asserts that no management accounting techniques – for instance, for stock management –are universally appropriate for all businesses. Their suitability for a given enterprise depends on the situational factors that it faces (Islam & Hu, 2012).

Otley (2016) and Nguyen and Le (2020) identify the contingency factors affecting management accounting technique adoption as organisation size, market competitive intensity, technology and the qualification levels of accounting personnel. Thus, the size of an organisation has an impact on how stock management is administered as a management accounting practice; large organisations, for example, have the resources to employ sound stock management. As a result, there is a positive correlation between the size of the entity and the use of advanced management accounting techniques for stock management. Management accounting techniques also evolve in response to market competition, with a positive correlation between market competition intensity and management accounting approach adoption. Finally, there is a favourable correlation between the adoption of management accounting techniques and the level of qualification of the employees of a company (Otley, 2016; Nguyen & Le, 2020). Thus, the lower the skills or qualification level of the employees, the less the appropriate management accounting techniques will be adopted. A corollary is that the more advanced the level of technology employed by an entity, the more informed their decision making will be and the more likely they are to adopt appropriate management accounting techniques such as sound stock management.



Furthermore, Lopez and Hiebl (2015) emphasized the critical necessity for research into accounting processes in SMEs. According to Wilkerson and Bassani (2020), the adoption and application of management accounting approaches by SMEs should not place arbitrary limits on theoretical explanations for findings and recommendations. In this regard, Abba et al., (2018) insist that a theory of contingency is imperative to research in management accounting. Kemerer (1991) applied contingency principles in an earlier study in management accounting research. The study investigated the effects of structural factors and found that companies that employed just-in-time or other team-based programmes are more likely to provide worker performance information. A study by Kibangou (2019) also applied contingency theory. The study found that strategic management techniques such as drawing up a balance scorecard and budgets could help small businesses enhance their performance. On the other hand, a recent study by Orobia et al., (2020) asserts that sustainable performance in a business is contingent on its unique offerings and the development of this uniqueness over time by fostering the core competencies of the business. Orobia et al., (2020) maintain that when an SME's managers have the skills required, they can use them to improve stock management, which will lead to healthier financial performance.

Contingency theory in management accounting will be of assistance in interpreting the results of this research, to provide a deeper understanding of the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa.

2.3 Definition and classification of SMEs

According to Liberto (2020), no global definition of SMEs exists because the definition of what constitutes an SME varies from country to country. The industry in which the company operates as well as its size are taken into account. The SA National Small Business Amendment Act as revised in 2003 and 2004 defines SMEs in SA as "a separate and distinct business entity, together with its branches or subsidiaries, if any, including cooperative enterprises, managed by one owner or more predominantly carried on in any sector or subsector of the economy". Additionally, the Government Gazette divides small firms into four categories based on their industrial sector, size, employee count, and revenue (South Africa, 2019:111). Given that this is



a study of SMEs operating in the mobile industry, Table 2.1 below illustrates the classification of SMEs operating in the SA mobile industry.

Table 2.1: Classification of SA SMEs in the mobile Industry.

Industry	Class of Enterprise	Total full-time equivalent	Total annual turnover
		of employees paid	of the enterprise
ICT	Micro-Enterprise	0 to 10	Less than or equal to
			R7.5 million
	Small Enterprise	11 to 50	Less than or equal to
			R35 million
	Medium Enterprise	51 to 250	Less than or equal to
			R140 million

Source: (South Africa, 2019:111 National Small Business Amendment Act)

In this research, the focus is on SMEs rather than SMMEs because SMEs are presumed to have the size, sophistication and resources necessary to adopt stock management.

2.4 The importance of SMEs to the SA economy

For a variety of reasons, SMEs are extremely important to the economy of South Africa. First, SMEs are key drivers of employment: according to Liedtke (2019), SMEs employ above 47% of the SA workforce. Leboea (2017:51) maintains that they play a vital role in reducing the unemployment rate in SA since they have a high labour absorption capacity. To accelerate the rate of growth in developing countries such as SA, SMEs would be one of the main areas for consideration by policymakers (Abor & Quartey, 2010; Quartey et al., 2017). By creating jobs, SMEs help to reduce inequality, poverty and other related challenges such as prostitution, abuse, crime and suicide (Ntshonga, 2019).

Secondly, SMEs are important to the SA economy as they contribute more than 20% of the GDP, one of the most widely used economic output or production measures (Liedtke, 2019). Leboea (2017:50) notes, however, that the contribution of SMEs in SA is relatively small compared to



other developing countries like Chile, where they contribute 57% of GDP or even Brazil 59%. In developed countries, this proportion can rise as high as 60% in China and 87% in Germany. Leboea (2017:51) believes that an improvement in GDP contribution will occur when SMEs are fully operational, and only if they are sufficiently resourceful and the challenges facing them are addressed and remedied.

Thirdly, Liedtke (2019) asserts that SMEs are essential to SA as they contribute to the country's revenue system by paying taxes to the South African Revenue Service (SARS). Through the payment of taxes, SMEs provide the SA government with funds for social projects like health services, education and many more.

Fourthly, Fatoki (2014) argues that SMEs contribute significantly to poverty alleviation. Because of the competition and entrepreneurship introduced into the market by SMEs, besides providing employment they are reducing poverty through economic benefits such as innovation, efficiency and growth in production (Leboea, 2017:51).

2.5 An overview of the mobile industry

The mobile industry is a subset of the telecommunications industry concentrating on cell phones, but encompassing electronics, producers of computer hardware, software, wireless and remote technologies that are utilised in a diversity of portable gadgets (Akers, 2020; McMahon, 2020). The mobile industry is also an important element in the Fourth Industrial Revolution (4IR), since 3G/4G networks in conjunction with increasing smartphone adoption are creating demand for 4IR digital media, digital content, facilities and services (McGinnis, 2018; Eiser et al., 2019).

The rise in consumer demand for mobile devices has led to growth in the mobile industry, created employment and improved living standards for populations in SA and around the globe (Akers 2020; McMahon, 2020). In SA 20 to 22 million people make use of a cell phone, which is about 33% of the nation's population. Smartphone consumers are estimated to be growing rapidly to about five million by 2023, as shown in Figure 2.1 below (Statista.com, 2020). During this era of the Covid-19 pandemic, mobile internet, fixed wireless connections, and mobile



applications have become essential instruments for staying operational and in touch with medical professionals, co-workers, and loved ones (GSMA, 2021).

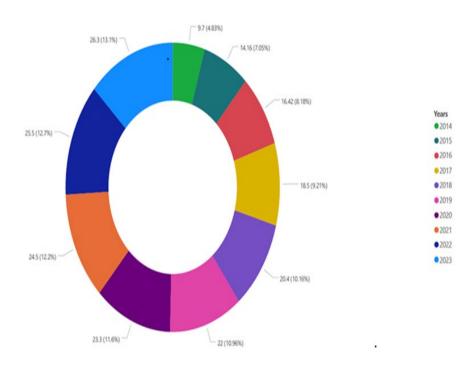


Figure 1.1: Numbers of smartphone consumers in South Africa from 2014 to 2023 (Statista 2020)

2.6 The concept of stock management

2.6.1 Definition of Stock

There are several terms in finance that are used interchangeably in this context, notably stock and inventory. Stock and inventory appear to be highly correlated. The following Table (2.1) features a comparative analysis between stock and inventory (Kings, 2018; Anon., 2019b; CFA Institute, 2020).



Table 2.1: A comparison between stock and inventory

Specifics	Stock	Inventory
Definition	Stock refers to the goods sold by the	Inventory indicates the value of an
	business to the customer that can be	entirety of finished goods, goods-in
	in any form. Stock is merchandise	production and raw materials.
	ready to be sent to consumers.	
Context	It is used in a business context as it	It is applied by accountants in a
	directly impacts the top line of an	bookkeeping or accounting context.
	organisation.	
Valuation	It is valued at market value, that is,	It is valued at the cost incurred by
	the price at which it is sold to	the enterprise through valuation
	consumers.	techniques like LIFO, FIFO and
		Average Cost
Frequency	It is valued at relatively frequent	It is valued not long before the
	intervals and at times daily.	completion of a financial period.
		Thus, it is valued infrequently in
		comparison to stock.
Examples	Biscuits sold by a biscuit company	Is commonly found in manufacturing
	to its consumers.	firms. For example, cars and spare
	Cell phones, tablets sold by a mobile	parts sold by a car dealer to its
	retail outlet.	consumers

For the sake of this research, the word stock is used since it refers to the goods sold by the business to the customer that can assume any form (Kings, 2018; Anon., 2019b; CFA Institute, 2020). SMEs in the mobile industry sell stock such as cell phones, starter packs, data, fibre, VoIP telephones and routers to consumers. Sewak and Vaidya (2020) prefer to define stock as



the products or merchandise stored on the premises of an enterprise or warehouse and available for sale or circulation.

2.6.2 Stock management

According to Bhandari (2018:79), stock management is a management tool that consists of planning, organising, monitoring and controlling the process of stocks from their initial procurement to ultimate destination. A low level of stock unfavourably affects the everyday operation of the business. Then again, a high level of stock can result in losses, stock damage, bad stock, opportunity costs and various holding costs. Between the two lies an optimum level of stock, and to attain and maintain this level of stock in any organisation is the role of stock management. Stock management is in this way concerned with limiting stock expenses (i.e., acquisition/purchase cost, ordering cost and holding cost) (Bhandari, 2018).

Onkundi and Bichanga (2016) describe stock management as the process of effectively overseeing the continuous flow of units into and out of a current stock; it includes controlling the transferal of the units to keep the stock from getting excessively large or reduced to levels that could place the operation of the organisation at risk. Effective stock management aims to minimise the costs associated with stock, including the opportunity cost of the cash held in the stock, the carrying cost, and the cost of requesting and ordering. Figure 2.2, below, illustrates the stock management process.



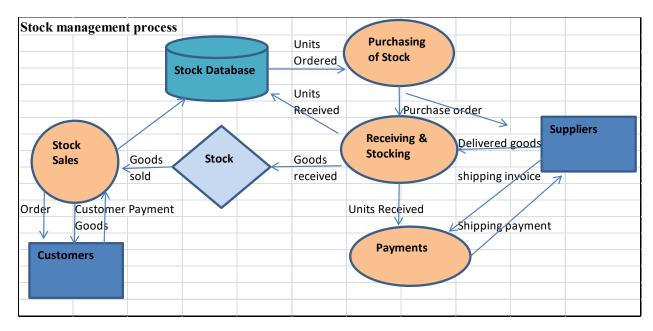


Figure 2.2: Stock management process (Tandem Technologies, 2014)

Eminuei et al., (2019) concisely characterise stock management as the process of effectively supervising, managing and controlling the merchandise for an enterprise. Effective stock management guarantees that the company consistently has the required stock on hand while keeping expenses as low as can be expected in the circumstances. Sound stock management is at the core of supply chain management excellence, providing an optimised strategy for reducing cost while enhancing financial performance.

2.6.3 Types of stock management techniques

According to Alla (2018), stock management is a collection of techniques, tools, methodologies, and strategies for stowing, tracking, delivering, and ordering stock. It is essential to control the movement of stock effectively to maximise liquidity, reduce losses and enhance profits, and this is where stock management techniques come into play. Experts have identified the following stock management tools and techniques: economic order quantity, minimum order quantity, just in time, safety stock inventory, reorder point formula, batch tracking, consignment stock,



perpetual stock management, drop-shipping, six sigma and demand forecasting (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).

- ❖ Economic order quantity (EOQ) refers to the minimum volume of stock one needs to order for a specific period, to meet consumer demand without going out of stock and without turning out obsolete stock. The purpose of the EOQ is to avoid excess stock and to keep the cost of stock as low as possible in the circumstances (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).
- ❖ Minimum order quantity (MOQ) refers to the minimum set quantity of stock that a supplier is prepared to sell. If one cannot buy the MOQ of a particular item, the supplier will not sell it. The reason for least request amounts is to permit suppliers to increase their profits while disposing of more stock more rapidly and clearing out the "bargain shoppers" at the same time (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).
- ❖ Activity-Based Costing (ABC) is a strategy for classifying stock into 3 classes according to how well they sell and how much they cost to hold. This method assists in identifying which commodities need to be reordered regularly and which do not, thereby reducing out-of-date stock and optimising stock turnover (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).
- ❖ Just in time (JIT) stock management means producing what is required, when it is requested, as per volume required. JIT tries to sidestep excess stock and its accompanying costs. It also includes keeping a limited quantity of stock, if there should be any unforeseen peak in demand (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).
- ❖ Safety stock inventory refers to the minimum surplus volumes of stock on hand to safeguard against fluctuations in customer demand as well as lead times. This helps the



supply chain to operate smoothly. The method is used to avoid stock-outs resulting from poor forecasting. The safety stock level should be high enough to meet the delivery schedules of the supplier, adequate to satisfy the demands of the clients, but not so high as to incur losses through holding costs (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).

❖ FIFO and LIFO are accounting techniques used for the valuation of stock and accounting for profitability.

FIFO (first-in, first-out): an accounting technique for valuing stock that maintains that the stock that came in first must be the first to leave or be sold; thus the company should dispose of the oldest stock first (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).

LIFO (last-in, first-out): this principle is the reverse of FIFO, holding that the company should dispose of the most up-to-date stock first to limit the sale of bad stock (Alla, 2018; Anon, 2019b; Shah & Mittal, 2019; Walts, 2020).

- ❖ Reorder point formula is a stock method that enables the company to know roughly when to order stock at the point when the stock has reached the minimum volume that can sustain the business before more must be ordered. The reorder point is higher than the safety stock volume to assist in tough times (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).
- ❖ Batch tracking is also a stock management method that is sometimes alluded to as lot tracking. Batch tracking enables the efficient tracing of merchandise along the circulation chain by batch numbers. It assists with tracking the expiry of stock or tracing flawed goods back to their batch (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).
- ❖ Consignment stock refers to a stock trade arrangement made between the consignor (a vendor or wholesaler) and the consignee (commonly a retailer). The consignor consents



to provide their stock to the consignee prior to payment for the goods. The consignor still owns the stock, hence payment is only made by the consignee when the supplies have been sold. This stock management strategy constructs a win-win partnership as long as the supplier and the consignee are prepared to share the benefits and the risks (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).

- ❖ Perpetual stock management involves the counting of stock as soon as it is received, so that stock both sold and supplied is constantly tracked. The accounting system is therefore constantly updated to reflect stock received, sold, used or returned (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).
- ❖ **Drop shipping** is a stock model that permits the shipping and selling of goods that the retailer does not actually possess. The suppliers, wholesalers or manufacturers produce the merchandise, store it, and then distribute it to the retailers' customers on their behalf (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).
- ❖ Six Sigma is a data-driven stock method that tries to diminish stock defects and enhance the performance of the company. The objective of Six Sigma is to produce faultless products for consumers (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).
- ❖ **Demand forecasting** is a stock management method of predicting what consumers will need to buy, in what quantities when they will need the goods. The company can use familiar quantitative techniques such as analysing past sales data as well as guessing. Demand forecasting assists in making sound decisions in planning stock management, especially when entering a new market (Alla, 2018; Anon., 2019b; Shah & Mittal, 2019; Walts, 2020).

CX Works (2018) observes that stock management models impact several things, including the cost of working capital, goods offerings and customer service. For that reason, it is essential to



have a stock management strategy when determining an overall business strategy. The stock management strategy needs to be aligned with the business objectives to be accomplished. CX Works (2018) notes that there is no universal prescription for stock management since it will depend on the processes, environment and technology characteristic of the organisation. SMEs should make sure that the strategy they choose can improve efficiency and sustain growth.

2.6.4 Importance of an effective stock management strategy

Effective stock management is a good practice for any organisation, since stock management can make or destroy a business. Eminuei et al., (2019:46) note that a stock management strategy includes all the steps taken to monitor and control stock to prevent members of the supply chain from keeping excess or too little stock on hand. Shajema (2018) explains that an effective stock management strategy aids an organisation rapidly to respond to customer demands while avoiding both excessive stock and stock-outs. An effective stock management strategy should achieve the following (Shajema, 2018; Eminuei et al., 2019; Scanco.com, 2020):

- it intensifies the accuracy of stock orders
- > it leads to a more structured warehouse
- it reduces the time and resources spent in search of stock items, avoids stock-outs and over-stocking situations
- it benefits by saving time and cash, and it helps reduce spending on stowage,
- > it improves revenue since consumers will keep on returning for additional goods and services
- > overall, it improves a business's liquidity position, profitability and business financial performance.

Bhandari (2018:80) notes that enterprise resource planning improves the accuracy of stock management, enhances speed and lessens the expenses incurred in the management of stock. He adds that both procurement strategies and staff training or skill levels have an important connection with stock management.

Furthermore, Shajema (2018) explains that effective stock management produces opportunities to build competitive advantage and improve the financial performance of an enterprise. This



involves a decrease in warehouse costs by simply keeping enough stock in a suitable place, with appropriate timing to deliver the right volumes of required stock. A stock management strategy is therefore necessary for the survival and sustainability of businesses, particularly SMEs operating as retail outlets (Eminuei et al., 2019).

2.6.5 Stock control systems

Efficient stock control matters because having excessive stock or no stock undermines the profitability of the business (Daniel, 2017). Stock control can be performed;

- Manually, using codes and stock cards (Daniel, 2017). The stock cards help to identify obsolete and slow-moving stock (Sugiono & Alimbudiono, 2020)
- ➤ Using a computerised stock control system. This is an excellent solution for businesses that deal with a variety of different types of stock, as it enables automatic stock monitoring and order preparation when the re-order level is reached (Daniel, 2017).

Stock control systems are essential to a business's ability to manage inventory accuracy, identify sources of shrinkage, and ensure the proper amount of stock is always available at the right time. Stock control systems assist businesses in determining whether adequate controls are in place to effectively manage risks associated with internal stock control, whether an oversight body is in place to effectively monitor stock control objectives, strategies, and results, and whether the results of such controls are clearly defined and useful (Eminuei et al., 2019).

2.6.6 Factors affecting the effectiveness of stock management by SMEs

Factors that influence the effectiveness of stock management in SMEs include the following (Chan et al., 2017; Olowolaju & Mogaji, 2020):

- inadequate funds
- inexperienced staff
- lack of skills and knowledge among employees
- > poor communication
- > suppliers, poor store records



- > uneven document management
- lack of technology.

2.6.7 Stock turnover as an indicator of stock management

According to Otuya and Eginiwin (2017), stock management practices are influenced by product, operational, and demand-related variables such as delivery time, obsolescence, sales variation, and stock turnover. Stock turnover refers to how sales performance is tracked in relation to stock (Kanguru, 2016; Prabhu, 2021). It is the number of times stock is sold or utilised over a period of time. Prabhu (2021) maintains that stock turnover is a measure of sound stock management, while Kanguru (2016) argues that sound stock management may also provide critical solutions to questions like, What is the stock turnover? And, critically, Is the enterprise incurring exorbitant holding costs due to high volumes of stock?

Otuya and Eginiwin (2017) point out that SMEs with higher stock turnover tend to have better returns than those with lower stock turnover. Stock turnover can be an index of the effect of stock management on the financial performance of a business (Otuya & Eginiwin, 2017; Prabhu, 2021). Efficient stock management can be helpful in achieving greater stock turnover, which leads to better financial performance. This study therefore assesses stock turnover among SMEs in the mobile industry in order to determine the effect of stock management on their financial performance.

2.7 Financial performance measures

2.7.1 Financial performance

Financial performance refers to the degree of accomplishment of an organisation's financial goals. It measures the organisation's financial wellbeing over a specific period. Financial performance encompasses the collection and apportionment of accounts measured by profitability, liquidity, capital sufficiency, creditworthiness, efficacy, leverage, productivity and proficiency. Profitability and liquidity are conjointly essential goals for the business, which might experience serious problems if it sacrifices one at the expense of the other. Financial



performance is, in short, the organisation's ability to oversee, monitor and control its resources. The analysis of financial performance requires financial statement review and interpretation so as to diagnose a firm's liquidity and profitability (Bibi & Amjad, 2017; Fatihudin & Mochklas, 2018; Verma, 2020).

Financial performance is thus assessed by how much healthier an organisation is at the close of the period of review, given the general aim of ensuring that the business is financially stable and makes a profit or at least breaks even (Stobierski, 2020). Shin et al., (2015) insist that better financial performance is achieved by better management of the firm's stock. Stock management enhances a business's profitability and liquidity position, so it is of paramount importance for SMEs to have a viable stock management strategy.

2.7.2 Profitability

Johanns and Hofstrand (2019) assert that the core aim of businesses is profitability, and profitability is determined by the firm's revenue set off against its expenses, or as measured by the margin and return ratios. These profitability ratios assess the financial performance of a firm (Johanns & Hofstrand, 2019; Kenton & James, 2020; Stobierski, 2020). It is therefore critical for a business to measure profitability to ascertain its success as, once not profitable, it may not survive.

2.7.2.1 Profitability measures

Kakeeto et al., (2017) and Carlson (2020) assert that, for both business owners and managers, profitability measures are a vital gauge of progress and viability. The profitability of a business is measured by the margin and return ratios. The proxy indicators that can be used to calculate the profitability of a business are the return on equity, return on assets, as well as the gross profit and net profit or margin (Lwiki et al., 2013; Bibi & Amjad, 2017).

Gross profit (GP) margin is a profitability ratio that measures how effectively a business manages the cost of its stock then passes this cost on to its customers. If the GP Margin of a firm



is high, the profitability of the firm is high. The computation of the GP Margin is GP/Sale (Corporate Finance Institute, 2020).

Net profit (NP) margin tests profitability after all costs including taxation, interest and depreciation are taken into account. The computation of the NP Margin is Net Income / Net Sales (Corporate Finance Institute, 2020).

Return on assets calculates the efficiency with which the business handles its investment in assets and uses them to generate profit. The computation is Net Income / Total Assets. The higher the return on assets ratio, the greater the profitability of the firm (Corporate Finance Institute, 2020).

Return on equity calculates the return on capital contributed by investors in the business, to establish whether the firm is using investors' money well to generate income. When determining whether to invest in the business or not, potential investors look at the return on equity ratio. The computation of the return on equity ratio is Net Income / Stockholders' Equity. The higher the return on equity ratio, the greater the profitability of the firm (Corporate Finance Institute, 2020).

2.7.2.2 Organisational profitability and stock management

The main goal of stock management is to attain safety stock by preventing the holding of too much or too little stock. Safety stock helps the business to achieve manageable holding costs (Orobia et al., 2020). If an organisation's working capital is not managed properly, the funds could end up being tied up in stock for no reason (Kakeeto et al., 2017). This will result in a higher stock conversion period, which affects sales turnover and decreases profitability. It is therefore essential for SMEs operating in the mobile industry to avoid over-stocking, as this not only incurs higher costs (for insurance and storage, etc.) but can also lead to obsolete stock, negatively affecting profitability. On the other hand, if they decrease the stock conversion period and the volumes of stock to safety stock through sound stock management, their profitability will improve (Kakeeto et al., 2017). Otuya and Eginiwin (2017) note that SMEs with higher stock turnover produce better results than those with lower stock turnover. But circumstances in the industries they investigate – Ghana's food industry and Nigeria's manufacturing industry – may



be distinct from those faced by South African SMEs operating in the mobile industry, the subject of this study.

2.7.3 Liquidity

Liquidity can also be used to measure the financial performance of a business. Shahid (2012:33) defines liquidity as having an adequate amount of money in the form of cash, or cash equivalent resources (e.g., stock and account receivables) to meet financial commitments. Ross (2019) also points out that investors, money lenders and managers all look to organisations' financial reports, expanding the liquidity measurement ratios to analyse the liquidity risk. This is normally calculated by comparing liquid assets (such as stock) and short-term liabilities.

Measuring Liquidity

Liquidity ratios are used to determine the liquidity level of an organisation. Such ratios include quick ratio, current ratio, cash ratio, net working capital ratio to total assets, debt to equity ratio (DER) (Fatihudin & Mochklas, 2018). Generally speaking, when using these ratios a proportion of greater than one is favourable. The current ratio measures current assets (assets that can be easily converted to cash in one year) such as stock, cash and debtors, against current liabilities. Current liabilities are payables such as salaries and wages and debt to be paid within a year. The current ratio is computed as follows: Current Ratio = Current Assets / Current Liabilities (Rodeck, 2011; Chen & Scott, 2020).

If the company's current ratio is more than 1, the company will be liquid. If the current ratio is under 1, the company will be illiquid. Rodeck (2011) notes that the effect of stock on an organisation's liquidity relies on which measure is being used. Stock affects liquidity under the current ratio but does not impact liquidity when the quick ratio is used. The current ratio measurement is contingent on how the company sells its stock. If the company can rapidly obtain cash for its stock without it losing its worth, the stock improves its liquidity, and viceversa. But if the customer only purchases the stock after it has been held for a long time, it negatively affects liquidity.



2.7.3.1 Organisational liquidity and stock management

Evans (2016) has noted that the major dangers of holding excessive stock are loss of profit, excessive carrying costs and liquidity problems. Stock management is therefore critical to the maintenance of an SME's liquidity position (Rodeck, 2011). When purchasing goods in bulk a firm may get a discount from the supplier and/or secure better credit terms, but this may lead to the firm's holding excessive stock and reduce its liquidity. Bibi and Amjad (2017) assert that stock management is crucial to enterprises since it affects the firm's profitability and liquidity. A firm should closely monitor both profitability and liquidity as sacrificing one or the other may cause serious problems down the line.

2.8 Management of stock in the mobile industry

While studies on stock management by SMEs in the mobile industry are scarce, the ones included in this section are relevant to the present study.

Epusi (2013) investigated mobile phone dealers in Nairobi, Kenya. His study examined approximately 100 respondents selected through random sampling, about 65% of the target population of 155 listed mobile phone dealers in Nairobi. The study noted that a considerable number of the SMEs surveyed neglected the management of their stock in relation to the threat posed to the environment by mobile devices. Although they were aware of this, they did not heed the guidelines supplied by environmental bodies for mobile stock management. According to Epusi (2013), the management of stock causes environmental impacts both in the forward logistics that deliver mobile stock and services to end-users, and in reverse logistics, which recycle mobile stock to refurbished phones. Moreover, many respondents were knowledgeable about green products and suppliers and were prepared to give consideration to the purchase of refurbished mobile phones.

Epusi's (2013) study revealed that the refurbished phones accommodate the needs of customers who appreciate the lower cost, although refurbished phones may manifest technical problems that have a major influence on stock returns, leading to additional costs. The study did not assess the effect of stock management on the financial performance of refurbished phone retailers.



Additionally, the study was conducted in Kenya, and although Kenya has a high mobile phone penetration comparable to South Africa's, the generalisability of the study's findings is questionable in the South African context and in addressing the objectives of this study.

In a more recent study, Mpwanya and Van Heerden (2017) explored supply chain costs encompassing stock and related matters in the South African mobile phone industry. The study investigated one mobile retailing group and three mobile network operators, using semi-structured interviews to collect data for a qualitative, case-study approach. The study showed that operating expenses incurred by stock purchases and related costs in mobile phone businesses are colossal, and that information on the management of stock and stock supply in the mobile phone industry in South Africa is highly limited. Companies should, therefore, continuously embark on cost reductions such as holding lower stock levels to improve business performance. The study found that better liquidity can be achieved by stock management through the maintenance of balanced stock levels, higher stock returns and the greater use of resources. Other avenues for reducing expenses and increasing efficiency and profitability in the mobile phone industry included the outsourcing of certain support activities and the direct purchasing of stocks by device manufacturers.

Mpwanya and Van Heerden (2017) argue that regulators should reassess the South African mobile telecoms policies by allowing SME mobile retailers to purchase handsets directly from device manufacturers to boost efficiency, from the perspective of both retailers and end-users. This would reduce stock costs and enable a better deal for consumers, thereby improving financial performance.

Mpwanya and Van Heerden's (2017) research took the form of a qualitative case study, however, whereas quantitative research would have been able to summarise large tracts of information, with greater accuracy and no bias. Although informative, Mpwanya and Van Heerden's (2017) study was conducted among large and small mobile phone firms in the industry, employed a limited sample size and did not reveal the effect of stock management on the financial performance of the SMEs involved.



2.9 A review of prior studies on stock management

There is a dearth of studies on the effect of stock management on SMEs operating in the mobile industry, particularly in respect of financial performance. Consequently, this segment reviews studies previously conducted on stock management in other sectors, both in South Africa and elsewhere.

In Phokara, the largest city in Nepal, Bhandari (2018) conducted research on stock management, focusing on factors that affect its efficiency at Janapriya Multiple Campus. The research study was based on data from 21 samples out of the 28 Janapriya campuses. The investigation noted that the best possible stock record, stock data, and capable and qualified store representatives are significant indices of the effectiveness of stock management. The study also found that there should be adequate funds, skilful store accounts representatives, development and training for store employees, a few standard suppliers and a simple procedure for budget release. However, the study provides no guidance on how effective stock management can be achieved in organisations with liquidity and profitability problems, like the SMEs that are the subject of the present enquiry. Moreover, there is no indication of how stock or stock management decisions improve the financial performance of an organisation.

Trap et al., (2001) researched stock management in Zimbabwe, focusing on the impact of supervision and adherence to treatment procedures in the field of healthcare. The study was conducted while health workers were being trained in drug management (incorporating stock management and coherent drug usage). To assess the effect of the supervision and the usefulness of the training programme, complying with the standard treatment guidelines (STG) and the stock management were assessed in a randomised controlled trial. The study analysed three divisions within health facilities, comprising 23 samples of those supervised for the utilisation of the STG, 21 samples on stock management for each group as a control for the other area of supervision, and 18 samples of groups that did not receive supervision. On-the-spot management by an exceptionally well-prepared drug store staff occurred at the time of the investigation and the 3 months after the fact.



Trap et al., (2001) revealed that through subsequent supervision, overall stock management was significantly enhanced in comparison with the control group. The study also revealed that supervision has a more positive effect on improving performance than regulating and demonstrating skills for improvement. Supervision seemed very important, particularly since the facilities had limited funds available for expenditure on stock. However, Trap et al., (2001) focused more on upskilling the pharmacy technicians to impact prescribing practices and thus improve stock management practices. The study was conducted in Zimbabwe did not directly address all the objectives of this study. It is also dated since it is more than twenty years old and there have subsequently been many changes in stock management procedures.

In a study conducted by Monisola (2013), inventory management was assessed among SMEs in the southwest of Nigeria. The study evaluated the reasons why SMEs lack sound inventory management practices and do not apply scientific inventory management models. The manufacturing sectors assessed by the study operate in the wood, metal products, textiles and food sectors in the southwest of Nigeria. For the 320 SMEs in various sectors of manufacturing industries selected, 66.25% responded to the questionnaires for the study. The study found that there is a huge rift between theory and practice in inventory management and making decisions regarding inventory on the part of SMEs. There was little evidence of the proper execution of inventory management techniques, valuation, ratios and processing to enable informed decision making in SMEs. This is because, generally, SMEs base their decisions on rule of thumb and their previous business experiences. Most SMEs did not make use of the perpetual inventory process, processing their inventory records manually.

Monisola (2013) found that the absence of adequate data and a sufficiently skilled workforce among the SMEs led to their failure to adopt scientific inventory management techniques. He therefore suggests that SMEs should establish structures to educate their workforce on the use of inventory techniques, while prioritising the adoption of Information Communication Technology applications for data management. While this recommendation is germane to the present study, Monisola (2013) does not evaluate the effects of stock management on liquidity and profitability.



All the studies hitherto reviewed were undertaken outside SA. In a unique study conducted in SA, Moletsane (2018) investigated the impact of an enterprise resource planning supply chain management process for the reduction of stock-outs. This was a case study in the city of Cape Town (CCT) in SA. As a metropolitan municipality, the CCT is one of the organisations that have adopted an enterprise resource planning ERP system to improve service delivery to residents in the province. ERP systems can generate numerical records on stock-outs, but such reports are not sufficient to trace the stock-outs back to their root causes within the CCT SCM processes. For that reason, it is hard to determine the most suitable way of reducing the causes and the volumes of stock-outs. Moletsane's (2018) study ascertained that the reasons for out-ofstock problems were "procedures, service delivery, suppliers, stock-outs, human resources, and systems". However, the study did not reckon the overall monetary significance of the stock-outs for the organisation, nor did it explore supplier-related reasons for out-of-stocks in a supplier self-service environment. This means that it did not contemplate the effect of stock management decisions on the financial performance of the organisation. The generalisability of the study findings to SMEs is questionable in that a lack of resources may prevent them from licensing ERP, a core component in stock and supply chain management.

In another study conducted in South Africa, Kanguru (2016) investigated stock management techniques among SMMEs in the Cape Metropole. The study revealed that the inventory-management practice that most SMMEs were using was the rule of thumb, an inventory management practice that depends on common sense and experience when deciding the volumes of stock to order and to keep on hand. It was found that the rule of thumb method was passably effective among SMMEs for stock management techniques such as stocktaking, forecasting, budgeting, warehousing, sound ordering practice and warehouse role segregation.

At the same time, Kanguru (2016) reported that the rule of thumb method can lead to a lot of challenges, such as the failure to keep up with customers' demand, stock-outs, errors by incompetent employees, theft, as well as physical inventory not reconciling with stock records. The application of Kanguru's (2016) findings to SMEs may be questionable since his study was limited to SMMEs in the fast-moving consumer goods sector, and applicable approaches for



effective stock management in the retail mobile sector may differ. The study did not address the effects of stock management practices on the financial performance of these entities and therefore does not address the objectives of this study.

In another provincial South African study, Munedzimwe (2017) investigated medicine stock management in primary health care facilities. The study explored elements affecting the management of stocks of medication and causing stock-outs at four primary health care facilities in the study region. A qualitative case study methodology was used after a theoretical framework was developed from a review of relevant literature. This framework guided the gathering of information and data analysis. The study findings showed that the factors affecting stock management were the lack of expertise and physical resources at health care facilities. Inadequate supervision and a lack of support resulted in employees at the facilities not following the prescribed methodology for medicine stock management. The study also discovered that there was poor communication between management, workers, and the pharmaceutical warehouse from which the facilities acquired their stock. Though informative, Munedzimwe's (2017) study focused on the factors influencing stock management in health facilities. The generalisability of its findings to SMEs in the mobile industry is therefore questionable.

2.10 A review of prior studies regarding stock management and financial performance

There appear to be no studies on the effect of stock management on the financial performance of SMEs in the mobile industry of South Africa. This segment reviews studies conducted in other countries and other sectors, particularly the manufacturing sector, and with a particular focus on inventory management and financial performance.

Lwiki et al., (2013) investigated how the inventory management practices of Kenyan sugar manufacturing companies impact their financial performance. This was achieved by evaluating the degree to which sugar manufacturing firms employ the lean inventory system, technology and strategic supplier alliances. All eight Kenyan sugar manufacturing firms were canvassed in the research survey, with structured and semi-structured questionnaires being used to gather primary data. Secondary data used included yearly financial and statistical reports on the sugar



industry. To measure the impact of inventory management practices on the firm's financial performance, descriptive statistics and correlation analysis were employed.

The study revealed that more management-oriented models incorporate the JIT, MRP and ERP approaches. To meet consumer demand, some firms calculated safety stock levels with the aid of computer technology. This was enabled by comparisons among consumer demand, stock levels and delivery of stock, using an electronic data interchange (EDI) system that allows direct communication without human intervention (Lwiki et al., 2013).

Lwiki et al., (2013) reported a positive correlation between inventory management practices and return on sales of 0.74. The study also found a positive correlation between inventory management practices and return on equity of 0.65. On the other hand, the study showed that only a few firms used electronic point of sale (EPOS) and EDI technologies. Two firms investigated recorded negative average sales and equity returns. In a nutshell, the study found a positive correlation between inventory management practices and the financial performance of the firms. These findings are not, however, necessarily applicable to South African SMEs operating in the mobile industry. The stock models and technologies recommended for enhancing financial performance may be inaccessible or not feasible for South African SMEs.

Shin et al., (2015) investigated the manufacturing industry in the United States, focusing on how inventory management efficiency affects profitability. Their study examines financial statement data for US manufacturing firms to explore the relationship between the firms' inventory management efficiency and their profitability. The study revealed that just-in-time (JIT) inventory systems are the cornerstone of new inventory management strategies. JIT is a management concept that lessens waste and improves quality in all business operations. It is an inventory strategy that seeks to decrease excess stock and related stock costs to boost financial performance. The JIT inventory system was significantly enhanced by the ERP system and the internet, making possible the monitoring of information and sharing of production and accounting information for real-time study. The result was lean production through the reduction of waste.



Shin et al., (2015) found that a lower stock-to-sales ratio for a product correlated with a higher profit margin for the enterprise. They also found that small firms can become relatively more profitable from improved inventory productivity than medium and large firms. Larger manufacturing companies tended to have already maximised their potential inventory efficiency by introducing technologically advanced inventory management systems. But by increasing their inventory efficiency, smaller companies acquired greater scope for improving performance and competitive edge. The study has limited applicability to South African SMEs operating in the mobile industry, having investigated the effect of inventory management on profitability but not on liquidity. Thus, it falls short of meeting all of the study's objectives.

In Nigeria, Evans (2016) researched the effect of inventory management on liquidity and cash flow control, focusing on 150 SMEs in Shomolu-Yaba, Lagos. The SMEs investigated were from different sectors including manufacturing, wholesale, retail and service. The study concluded that a large number of SME operators have a comprehensive understanding of how inventory management impacted their cash flow. They understood that stock-taking and checking would help them to recognise the stock to be recycled and avoid encountering stock-outs.

Evans (2016) also investigated the techniques employed by these SMEs in monitoring their debtors and creditors relative to their cash-flow supervision. One such technique was maintaining a detailed debtors' list that itemised all outstanding debts and payment terms. This helped the businesses to manage the stock sold on credit and decrease the likelihood of bad debt. The account holders who were consistent in their instalment payments received discounts on merchandise bought from the SMEs, helping to diminish the debt ratio against current assets.

Evans (2016) correspondingly investigated the measures used by the SMEs to manage their inventory levels relative to profit and liquidity. Holding excessive stock results in preventable expenditure on storage fees, carrying expenses and insurance expenses. These expenses directly impact the financial performance of the SMEs, resulting in lower levels of liquidity and the



inability to meet short-term liabilities. Most SMEs do not have a huge capital base, which encourages them to do whatever they can to restrict operating costs. Accordingly, 89% of the SMEs investigated considered the rate of demand when determining their stock ordering levels. Besides keeping track of the stock, this process helps to reduce the cost of holding unwanted or obsolete stock.

Besides being Nigerian-based, Evans's (2016) study did not cater for organisations without the convenience of suppliers willing and able to supply stock just in time, nor for organisations using reverse logistics. In South Africa, mobile devices are imported from wholesalers and retailers in other countries, and the supply chain can be long and slow-moving.

In another study, Otuya and Eginiwin (2017) investigated SMEs in Delta State, Nigeria, participating in the furniture, wholesale manufacturing and food industries. The study focused on inventory management and SME profitability. The authors noted that SMEs should be aware of costs relating to the management of their stock as well as the potential cost of poor inventory throughput. This would help them to analyse the utility of stock models. Thirty SMEs were chosen using random sampling, and the study results showed that profitability was influenced positively by stock turnover. For that reason, it was concluded that inventory management is of paramount importance to the firm's financial performance and enterprises should keep appropriate stock for better profitability. The study extolled the merits of the just-in-time stock management approach. The purpose of the study was to evaluate the influence of inventory/stock management on the profitability of SMEs, and the methodology adopted was descriptive research.

Although instructive, the study does not address the question of liquidity, and the JIT approach may not be feasible in the mobile industry in South Africa because most of the stock is imported from countries like China.

In 2016, Radasanu published a study on safety stock, service levels and inventory management. The author noted the prevailing view that the primary goal of stock management was to lessen the value invested in stock since this directly affected the return on assets. Radasanu (2016)



argues that the primary objective of stock management is rather to decide the value and combination of stock that support a high service level for consumers while maximising the organisation's financial performance. Companies typically ascertain their customer demand fluctuations and presume there are an excessive number of factors involved in foreseeing demand variability. But in inventory management, the level of service is used to gauge the performance of stock practices and enhance the possibility of not being out-of-stock and not dropping sales. Safety stock is the inventory that is stored to avoid out-of-stock. The purpose of safety stock is not entirely to eradicate stock-outs, but mostly to avoid them. Organisations prefer to preserve a high level of safety stock to avoid demand variability leading to incompetence and high working capital prerequisites. Safety stock enhancement may enable enterprises to accomplish savings and escalate stock turnover.

Radasanu (2016) also maintains that deciding the adequate stock level is one of the most crucial and critical challenges facing operations management. If the organisation carries excess volumes of inventory, it ties up cash in working capital. If the organisation carries too small a volume of inventory, it risks stock-outs and decreased service levels. There should therefore be a balance between stock expenses and customer experience. One of the principal challenges is figuring out the safety stock level to accomplish the ideal client service level. Unfortunately, a rules-based methodology is likely to result in a "one size fits all" approach to stock management. This implies that the rule-based approach will provide the right volume of stock for certain items, an excessive volume of inventory for other items and too little stock to meet the service levels requisite for other items. Radasanu therefore suggests that the most precise and effective technique for computing safety stock is to use a statistical approach to set and meet the service level objectives, while maintaining minimal stock levels to keep operating expenses low. It is vital for management that a model be tested before its final implementation to guarantee that it is functioning properly as well as to determine its effects on the stock levels. However, gathering all the data required for the statistical model calculation is no easy task, requiring expertise that might be lacking in SMEs. Every stock holding unit requires its own reorder point calculations and measurement for its own safety stock. Thus, the findings of this study may not be applicable



to SMEs operating in the SA mobile industry, and they may not address all of the objectives of the present study.

Recently, Orobia et al., (2020) investigated the financial performance of small businesses in Uganda, focusing on managerial competence and inventory management. The study surveyed 304 small enterprises in Uganda via questionnaire, and found that superior financial performance was significantly aligned with managerial competence and inventory management. What is more, it was discovered that effective inventory management is a significant component of managerial competence. Although recent, the study by Orobia et al., (2020) may be of limited applicability since it was conducted in Uganda and did not focus on the mobile industry.

A study by Ahmed et al., (2015) investigated the impact of inventory management on the financial performance of conglomerate companies in Nigeria. The study revealed the value of the JIT inventory system as the key to lean manufacturing and trading. Ahmed et al., (2015) found that if the inventory cycle is controlled and managed efficiently the firm's profitability will improve. The corollary is that any discrepancies in inventory management would affect the firm's profitability negatively.

Ahmed et al., (2015) suggest that while firms seek to ensure that they hold low inventories they should also ensure that their stock is checked to ensure that only the required inventory is held. This will eliminate delays in work in progress as well as the delivery of finished goods. Ahmed et al., (2015) only focused on the effect of stock on profitability and did not test the effect on liquidity as well. Additionally, because their study did not focus on the mobile industry and was done in Nigeria, their conclusions may not apply to SMEs operating in the mobile industry in SA.

In a unique study in South Africa, Marita (2013) investigated the optimisation of cash flow through inventory management enhancements at Atlantis foundries in the Western Cape. The study pointed out that the investors no longer focus only on profit but also emphasise cash. This idea informs commonplace adages such as "Cash is King". The recognition that reported income



is to a large extent subject to accounting decisions concerning applied GAAP brings cash more centre-stage in the minds of investors. This has persuaded companies to concentrate on inventory management to boost their cash position. Marita (2013) argues that in order to improve liquidity with high delivery targets, greater delivery promptness and low stock levels are required. The study investigated the opposing correlation between inventory expansions and decline in cash-flow position. However, the study was conducted more than eight years ago, was based on the manufacturing industry, and may not have much bearing on SMEs in the mobile industry.

Another local study conducted by Ngubane et al., (2015) focused on the stock management systems used by SMMEs in SA's manufacturing industry. The research data was gathered from questionnaires administered to 21 SMMEs in the northern suburbs of Cape Town and analysed using a quantitative approach. The study describes inventory/stock management as one of the most significant factors in competitiveness and the key operating performance measure for small enterprises in the manufacturing industry. Ngubane et al., (2015) show that the growing competitive edge of companies importing and exporting manufactured products from other countries like China and India at very low cost poses challenges for most small businesses in the manufacturing industries, which typically struggle to grow. The study proposes that SMMEs formalise their in-house structures and systems to become more competitive.

Ngubane et al.,'s (2015) study reported that roughly 80% of small enterprises do not survive beyond their initial 4 years of existence. Commonly the survival of SMMEs is negatively affected by ineffective management of stock, which in turn affects manufacturing, operations, client relations and productivity. The study found that while most respondents knew about proper stock management systems, they did not use them. Even if they used informal stock management systems, customised inventory management strategies were also implemented. The generalisability of these findings may be limited with respect to SMEs in the mobile industry.

2.11 Gaps identified in prior literature

The following gaps have been identified from the foregoing literature review;



- Most of the prior studies were not conducted in South Africa and therefore their findings may not be generalisable to a South African context
- ❖ Most of the studies in the area of research drew on examples from other sectors, particularly the manufacturing industry, or sampled large companies. Their findings may therefore not be applicable to SMEs operating in the mobile industry
- Some of the studies are dated, having been conducted more than five years ago, and therefore their findings may no longer be entirely valid
- ❖ There has been no research specifically on the effect of stock management on the financial performance of SMEs operating in the mobile industry in Cape Town, South Africa. This is the obvious gap that the present study is addressing.

It is doing this by seeking answers to the following questions:

- ❖ What are the techniques used in forecasting stock purchases by SMEs in the mobile industry in Cape Town, South Africa?
- ❖ Which measures of controlling and monitoring stock are used by the SMEs in the mobile industry in Cape Town?
- ❖ What factors, if any, hinder the effectiveness of stock management by SMEs in the mobile industry in Cape Town?
- To what extent does stock turnover affect the financial performance (i.e., liquidity and profitability) of SMEs in the mobile industry in Cape Town?

2.12 Summary and conclusion

The purpose of this chapter was to review previous research on the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa. In so doing, the chapter has provided a theoretical framework for the study, based on the contingency theory of management accounting. In this chapter, SMEs were defined and classified, and their importance to the SA economy was outlined. The chapter also provided an overview of the mobile industry, before moving on to discuss the concept of stock management. The discussion encompassed the definition of basic terms like stock and stock management, types of stock management models, stock control measures, factors affecting the effectiveness of stock



management in SMEs and the importance of effective stock management strategies. The chapter also introduced the notion of financial performance, elucidating the concepts of profitability and liquidity in relation to stock management. Thereafter, the chapter highlighted the management of stock in the mobile industry and reviewed prior studies on stock management and the relationship between stock management and financial performance. Lastly, the chapter presented the gaps identified in the existing body of literature and restated the research questions that have yet to be answered.

Given these gaps, it is clear that a comprehensive understanding of stock management among SMEs in SA remains elusive. The present study would therefore appear to be entirely appropriate and timely. The next chapter discusses in depth the research design and technique used to accomplish the study's objectives.



3 CHAPTER 3: METHODOLOGY

3.1 Introduction

A research methodology is a theoretically informed set of procedures followed by a researcher to carry out a research study and ensure that it produces valid and reliable results to address the research problem and objectives (Sileyew, 2019; Jansen & Warren, 2020). In this chapter, the study's research methodology is described and discussed to address the following research objectives:

- > To establish the techniques used for forecasting stock purchases of SMEs in the mobile industry in Cape Town, South Africa
- ➤ To determine the stock management measures used by SMEs in the mobile industry in Cape Town for controlling and monitoring stock
- > To determine the factors that hinder the effectiveness of stock management in SMEs in the mobile industry in Cape Town
- > To establish the correlation between stock turnover and financial performance (i.e., liquidity and profitability) among SMEs in the mobile industry in Cape Town.

To accomplish these goals, a questionnaire survey was used to collect quantitative data, which was then analysed using descriptive and inferential statistics. Segment 3.2 discusses and justifies the research paradigm used in this study, while Segment 3.3 justifies the survey method used in this study. Segment 3.4 discusses the research population and the sampling methods employed in this study. Following that, Segment 3.5 provides an overview of the questionnaire design, and Segment 3.6 details the questionnaire's pilot research. Segment 3.7 addresses the data collection procedure used in this study; segment 3.8 identifies the data analysis methods adopted; and 3.9 discusses the precautions taken to assure the questionnaire's reliability and validity as a research instrument. Segment 3.9 continues by outlining the limitations of the survey questionnaire approach used in this study. Segment



3.10 talks about ethical issues that are relevant to the study, and Segment 3.11 sums up and ends the chapter.

3.2 Discussion and justification of the research paradigm adopted in the study

According to McGregor (2017:13), a research paradigm is a perspective on research that is built on common assumptions, values, conceptions and practices relating to the nature of the reality being investigated. The research paradigm may thus vary according to research objectives and how these objectives are best achieved. An understanding of the research paradigm used for a study enables the researcher to clarify the inherent assumptions in the research process and how they match up with the methodology used. Positivism and interpretivism are the two dominant perspectives in social science research (Myers, 2019).

The positivist paradigm is concerned with how variables correlate, shape occasions and cause results in quantitative terms. The positivist approach holds that reliable information can be obtained directly from observation of or experimentation with natural phenomena by empirical means (Antwi & Hamza, 2015). The positivist paradigm also postulates that reality is objective and can be quantified using methodologies and research equipment that are not dependent on the investigator (Collis & Hussey, 2013:44; Myers, 2019).

Conversely, the interpretative paradigm takes into account the views and values of researchers to address the problems posed by the research, since research and reality are inseparable (Zukauskas et al., 2018). Conclusions reached depend on the researcher, the methods he or she uses and interaction with the subject of the study (Myers, 2019). The interpretative paradigm focuses on qualitative analysis rather than quantitative analysis.

This quantitative study is governed by the positivist paradigm, which is a more objective and thus more reliable approach than the interpretative paradigm, which promotes the use of subjective qualitative data (Zukauskas et al., 2018:126). A positivist study is well-suited to the use of closed questionnaires that can be statistically analysed (Zukauskas et al., 2018).



3.3 Justification for the questionnaire survey methodology

For this study, a questionnaire survey methodology has been chosen, a quantitative testing approach and a tool of positivist analysis (Anon., 2016; Trueman, 2020). The survey instrument was chosen for this study because it is not expensive to conduct, makes it easy to gather data from a large number of respondents, and covers a vast range of subjects. The method is also more convenient as respondents are likely to be more comfortable when filling out the questionnaire in private without the possible influence of a researcher's presence that could lead to bias (McLeod, 2014; Anon., 2016; Trueman, 2020). Structured questionnaires are typically made up of closed-ended questions, the answers to which researchers can quickly and easily collect, quantify and analyse through a range of statistical software packages (Humble, 2020:46).

3.4 Research population, sampling technique and sample size

3.4.1 Research population

A research population refers to the whole pool of relevant subjects from which a statistical sample can be drawn (Kenton, 2020). The targeted research population in this study comprised all the SMEs operating in the mobile industry in Cape Town, South Africa. Through the Bizcommunity online directory, 68 SMEs in the mobile telecoms industry were identified, forming the research population. To increase the number of participants, the SMEs who were approached were prompted to recommend an additional 30 SMEs operating in the mobile industry who were not on the Bizcommunity database. As a result, the target population expanded to 98 SMEs. Beins and McCarthy (2018:124) note that it can be difficult to access undocumented populations, so researchers need to utilise creative techniques to contact them, such as referrals. The referrals also help the researcher to obtain diverse information that s/he would not otherwise have had access to. The study targeted owners, managerial personnel, accountants and stock controllers, as they were regarded as the personnel capable of providing significant data to serve the purpose of the research.



3.4.2 Sampling technique and sample size

Since target populations are often large, an adequate sampling frame must be compiled, as sampling can provide the researcher with sufficient information to answer the research questions without consulting the entire population (Muhammad et al., 2018). A sample of 20 SMEs was identified, that is, 30% of the 68 mobile industry SMEs listed on the nationwide Bizcommunity database. The size of the SMEs was limited to the official South African definition of firms employing 6 to 250 employees (South Africa, 2019). The sample size of 30% was initially considered sufficient, given their location in the city of Cape Town, and the factors of time and cost that affect feasibility. Purposive sampling was used.

Purposive sampling involves selecting participants or events deemed capable of providing significant data that serves the purposes, of the study helping to respond to the research questions and attain the research goals (Taherdoost, 2016; Dudovskiy, 2018). The selected participants therefore comprised owners, managerial personnel, accountants and stock controllers.

The snowball sampling method was thereafter employed because only 20 of the 68 SMEs originally identified from Bizcommunity were located in Cape Town and it was decided that 20 respondents were fewer than the minimum of 30 required for a thorough or authoritative quantitative study (Eichler et al., 2018). Snowball sampling was therefore employed to recruit an additional 30 SMEs operating in the mobile industry. Snowball sampling is a form of chain-referral sampling whereby one individual from a target population refers the researcher to another individual, who then refers him or her to yet another person, as many times as the researcher desires (Beins & McCarthy, 2018:124). These 30 referrals were all located in the city of Cape Town and their company sizes ranged from 6 to 250 employees in accordance with the South African criteria for SMEs (South Africa, 2019). In this way, the sample size was increased to 50 SMEs, a sample of 51%, as shown in Table 3.1. Beins and McCarthy (2018) correctly point out that the snowball sampling technique is particularly effective when one is struggling to reach a population that is inaccessible or hard to get to.



Table 3.1: Target population sample based on the Bizcommunity business directory database and referrals

Target population	Total	Sampling	Sample
SMEs operating in the mobile	68	SMEs operating in the mobile	20
industry in SA on Bizcommunity		industry in Cape Town on	
business directory database		Bizcommunity business directory	
		database	
Target population as derived from	68	Sample on Bizcommunity	20
Bizcommunity business directory		business directory database	
database			
Referrals obtained during piloting	30	Referrals obtained during piloting,	30
		all in Cape Town	
Target population plus referrals	98	Original sample plus referrals	50
Total target population %	100%	Total Sample	51%

(Source: Researcher's own compilation)

3.5 Design and composition of the questionnaire

3.5.1 General description of the questionnaire design

As mentioned before, the study utilised a structured questionnaire for data collection, the questions being directly derived from the study's objectives. The questionnaire encompassed only five sections for ease of navigation, adding up to six pages inclusive of the consent letter. The letter introduced the researcher and described the nature and purpose of the research, assuring the respondents that any information they disclosed would be kept confidential and anonymous. It would be used exclusively for the study and involve no risk of any sort to themselves.

The questionnaire began with general questions about the respondents' personal and professional backgrounds. These were followed by questions about the techniques used in forecasting stock purchases, measures for controlling and monitoring stock, and factors hindering the effectiveness



of stock management. Questions on the effects of stock turnover on liquidity and profitability were asked at the end.

Sensitive issues pertaining to revenue and the payment of taxes were avoided to entice potential respondents to finish the questionnaire. Moreover, deliberate attempts were made to exclude any questions directed at a specific response, respondent or mobile company.

The questionnaire was kept simple and user-friendly to encourage the potential respondents to participate. It included fourteen closed-ended questions that required responses on a five-point Likert scale, yes-or-no responses, or multiple choice. The time it took to complete the survey was reduced to an average of 25 minutes.

3.5.2 Description of the specific sections in the questionnaire

The questionnaire consisted of five sections, comprising 14 closed-ended questions (see Appendix B). The main benefit of the close-ended question is that measurement can be more uniform and therefore more reliable. Closed-ended questions can be easily administered, coded, analysed, and can generate full answers while avoiding irrelevant responses (Anon., 2016; Trueman, 2020). The questions were organised into the following sections: Section A, which dealt with general information including the personal and business profile of the respondent; Section B, which dealt with techniques used in forecasting stock purchases; Section C, on the subject of measures for controlling and monitoring stock; Section D, which dealt with factors that hinder the effectiveness of stock management; and Section E, which focused on the effects of stock turnover on liquidity and profitability.

3.5.3 Section A: General information

The first section encompassed questions formulated to obtain information on the personal profile of the respondent as well as on his or her business. Section A of the questionnaire consisted of five multiple-choice questions, on the number of years the business had been in operation, the number of employees in the business, the position of the respondent in the business, whether his or her qualifications were accounting-related, the experience of the respondent and the level of educational achievement. The aim of this segment was to confirm that the participant met the



demarcation criteria. Any answer within this segment that did not fulfill the demarcation criteria rendered the entire questionnaire invalid. Section A was also used to obtain information that would be used in the analysis of data obtained from other segments of the questionnaire to discover whether the respondent's profile had any impact on his or her responses.

3.5.4 Section B: Techniques used in forecasting stock purchases by SMEs in the mobile industry

The second section was designed to address the first research objective, which was to establish the techniques used in forecasting stock purchases among SMEs in the mobile industry in Cape Town, SA. The section comprised one question, question 6, which involved 6 parts (a-f). The question was framed to rate the firm's usage of techniques for forecasting stock purchases to manage the stated risks. These questions required a response on a five-point Likert scale (Strongly disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5).

The techniques investigated covered the dimensions of both quantity and time in the forecasting of stock purchases. The questions asked whether they prepared stock budgets before purchasing stock, whether they used common sense to determine the quantity of stock for purchase, used some economic order quantity technique, used just-in-time and/or used the consignment stock arrangement.

3.5.5 Section C: Stock management measures used by SMEs in the mobile industry

The third section addressed the second research objective, which was to determine the stock management measures used by SMEs in the mobile industry in Cape Town for controlling and monitoring stock. There were three questions in section C, questions 7, 8 and 9. Question 7 comprised 8 parts (a-h) formulated to rate the usage of measures to control and monitor stock. These questions required a response on a five-point Likert scale (Strongly disagree = 1, Disagree= 2, Neutral= 3, Agree= 4, Strongly Agree = 5).

The measures investigated were whether stock control was performed manually or using a computerised system, whether the company had dedicated staff to manage the warehouse, whether clear procedures for receiving and issuing stock from the warehouse were followed by



staff, and whether management verified and authorised stock movement. Also probed were whether every movement of stock is recorded on stock cards, and whether stock records were maintained via periodic physical records or on a perpetual system.

Question 8, "Does your company conduct stocktaking?" invited a "yes" or "no" response, and was designed to ascertain whether or not SMEs in the mobile industry of Cape Town, SA conducted stocktaking and to filter respondents proceeding to question 9. Question 9, "How often does your company conduct stocktaking?", required respondents to advise if the stocktake was conducted daily, weekly, monthly, bi-annually, or annually.

3.5.6 Section D: Factors that hinder the effectiveness of stock management among SMEs in the mobile industry

The fourth section of the questionnaire was designed to address the third research objective, which was to determine the factors that hinder effective stock management among SMEs in the mobile industry in Cape Town. There was one question in the section, Question 10, which involved 6 parts (a-f). The questions were formulated to assess factors standing in the way of effective stock management among SMEs in the mobile industry in Cape Town. These questions required a response on a five-point Likert scale (Strongly disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5).

The factors listed as possibilities were inadequate funds, inexperienced staff, lack of skills and knowledge among employees, poor communication, poor store records, and lack of technology.

3.5.7 Section E: Correlation of stock turnover and financial performance

The last section, section E, sought to address the last research objective, to establish what correlations existed between stock turnover and the financial performance (i.e. liquidity and profitability) of SMEs in the mobile industry in Cape Town. The section had two parts, the first part, Questions 11 to13, comprising multiple-choice questions, and the second part featuring a question (Question 14) to be answered according to the five-point Likert scale, namely Question 14.



Question 11, "How would you describe the rate at which your company's stock is sold (stock turnover)?" required the respondents to advise if stock turnover in their business was, low medium, or high, and Question 12, "How would you describe your company's cash position (liquidity)?" invited a response of "good", "moderate" or "bad" and was designed to ascertain the relative liquidity of the SMEs surveyed. Question 13, "How would you describe your company's returns?" invited an "obtaining loss", "breakeven" or "obtaining profits" response.

The last question (14) was formulated to ascertain the effect that stock turnover had on the financial performance of SMEs in the mobile industry in Cape Town, South Africa. This required a response on a five-point Likert scale (Strongly disagree = 1, Disagree= 2, Neutral= 3, Agree= 4, Strongly Agree = 5). Through this question perceptions of the effect of the company's stock turnover on its liquidity and profitability were revealed.

3.6. Pilot study

Prior to data collection, the questionnaire underwent a pilot test with five academics to ensure that the wording was understandable to the participants. These were not part of the final number of respondents. The five academics with questionnaire design experience assessed the questionnaire and provided critical feedback on it. Academics were asked to describe their comprehension of each question and to identify any potential defects in the questionnaire that would not make it user-friendly. This process was also used by the researcher to determine how long the questionnaire took to complete.

Some defects in the questionnaire were found in the course of the pilot study, such as a lack of clarity in certain instructions, leading questions, incoherence in issues and the inclusion of two issues in a single question. These shortcomings were corrected until the questionnaire was deemed sufficiently clear, succinct and user-friendly to enable efficient data collection. After pilot testing and amendments based on respondent input, the questionnaire was resubmitted to the supervisor for final consultation and approval. The questionnaire was also submitted to two internal reviewers before it was sent to the Cape Peninsula University of Technology (CPUT)'s Higher Degrees Committee (HDC).



3.6.1 Submission of the questionnaire to the supervisor

The researcher prepared and forwarded the questionnaire's preliminary draft to her supervisors. The changes recommended by the supervisors were duly incorporated into the final version of the questionnaire.

3.6.2 Submission of the questionnaire to the Higher Degrees Committee of CPUT

The HDC approved the questionnaire and authorised its distribution to targeted participants.

3.6.3 Obtaining ethical clearance to conduct the study

Prior to initiating the study, the researcher was required to get approval from the university's Research Ethics Committee (REC) in the form of an ethical clearance certificate. After submitting all the needed paperwork to the REC, the researcher received a letter of approval. The documents concerned were the completed REC5 forms, proof of registration, the research proposal, letters of permission from external organisations to conduct the research study, the consent letter (Appendix A) and the survey questionnaire (Appendix B). After receiving the ethical clearance certificate (Appendix C), the researcher had met all the academic, ethical and legal requirements for data collection in social research.

3.7 Data collection process

After obtaining clearance to proceed with the study, the researcher approached owners and managing directors over and above the five approached previously to obtain the requisite permission letters. Although they were informed of the study's purpose, the majority voiced reservations about participating and raised questions about the aim of the study. Despite this, the researcher went ahead with the study, distributing the questionnaire to the SME representatives who had consented to take part. Participants were required to sign an informed consent form prior to receiving a questionnaire to complete at their convenience.

The respondents were given a fortnight to complete the questionnaire, which was to be returned via email or collected in person by the researcher on an agreed-upon date and time. Some of the respondents requested to fill out the questionnaire while the researcher was present. But due to Covid-19 regulations, and with the majority of the participants working from home at least some



of the time, the emailing of questionnaires was deemed to be the most suitable approach. The mail-out approach was also appropriate because it was cost-effective and saved time. However, some participants took too long to read the email, so the researcher had to use the hand-delivery method as well. The hand-delivery method was useful because it allowed the researcher to explain in greater detail the aim of the study, its methodology, and ethical considerations such as respondent anonymity and the confidentiality of information disclosed. This appeared to encourage potential respondents to participate in the study. To obtain all the completed questionnaires, the researcher had to make numerous follow-up phone calls and make several follow-up visits.

3.8 Description of data analysis methods adopted

The information gathered from the completed questionnaires was analysed using both descriptive and inferential statistics. Microsoft Excel Power Pivot and SPSS version 27.0 were utilised for data analysis purposes. The data set was tested for Pearson correlation and regression analysis. With the help of a CPUT statistician, each question and response were coded for analysis in both SPSS and Microsoft Excel Power Pivot. Before the data could be analysed, the coded file was submitted to the statistician for validation. Data were captured for each question from every properly completed questionnaire. It was classified according to frequency and shown in bar graphs, tables, and pie charts using descriptive statistics. Pearson correlation analysis was performed in order to establish the degree of correlation between stock turnover and the financial performance (i.e., liquidity and profitability) of the SMEs concerned.

The SPSS software used made it easier for the researcher to identify data-entry mistakes and outliers. SPSS software was also used because it contains pull-down menus that make accessing frequency, descriptive, and inferential statistical techniques faster and more efficient. SPSS includes additional functions that help researchers evaluate statistical data. In addition, it provides a wide range of charts and graphs and simplifies the process of generating complex figures through the use of pull-down menus (Chamanlal, 2014; Walliman, 2018). The data acquired in this study were analysed using both descriptive and inferential statistics.



Microsoft Excel Power Pivot was used to analyse the data, particularly the demographic data since due to Covid-19 challenges there was a delay in SPSS feedback from the CPUT statistician who had shown the researcher how to analyse data using Microsoft Excel Power Pivot. This program is user-friendly and can create a pivot table for the analysis of various types of data. It enables the saving of data in tabular format, that is, in rows and columns, as well as enabling one to engage with the data in various ways (Ferrari & Russo, 2017; Statanalytica, 2021).

3.8.1 Descriptive statistics

Descriptive statistics organise and summarise data in a straightforward manner. The arithmetic mean, mode, and median, as well as dispersion measurements such as standard deviation and variance are commonly used to describe the data (Holcomb, 2016). To summarise and illustrate the data gathered in this study, percentages and graphs were employed. In addition, for the five-point Likert scale questions, the arithmetic mean was utilised to summarise and rank the replies. A standard deviation was calculated for these scale questions to indicate the degree of agreement between respondents' replies on a on a specific topic, with less than one suggesting agreement and greater than one indicating disagreement or at least a mixed reaction

3.8.2 Inferential statistics

Inferential statistics enables researchers to draw conclusions about a population by analysing data from a sample. They enable researchers to infer the relationships between variables and to generalise findings, that is, to extrapolate the findings of an experimental study to a larger population (Holcomb, 2016:14). A binomial test was employed in this study to see if there were any significant variations in the proportion of respondents who responded "Yes" to questions that required a "Yes" or "No" response, particularly question 8. A correlation analysis was performed to assess whether there was a connection between stock turnover and financial performance (liquidity and profitability) among SMEs in the mobile industry in Cape Town, SA.

3.8.2.1 Correlation analysis

The analysis aimed to determine if the variables had a positive correlation and, if so, how strong it was. Although there are various methods for computing correlations between variables, the researcher used SPSS to do the correlation analysis using Pearson correlation analysis, which is



the most often used technique (Dudovskiy, 2018; Mackridge & Rowe, 2018). Pearson correlation is a bivariate analysis for determining the direction and degree of connections between two variables (Dudovskiy, 2018; Mackridge & Rowe, 2018). The correlation strength ranges from zero to one, with zero indicating no correlation and one indicating perfect correlation. In this study, if the Pearson's correlation coefficient is calculated as closer to one than zero, it indicates that stock management practices affect the financial performances of SMEs. A negative correlation means that the dependent variable goes down when the independent variable goes up. A positive correlation means that the dependent variable goes up when the independent variable goes up (Mackridge & Rowe, 2018).

3.9 Measures to ensure reliability and validity

According to Mohajan (2017) and Wagemaker (2020), reliability and validity are the cornerstones of research and are key features of evaluating the worth of any measuring instrument in research.

3.9.1 Reliability of the research instrument

Reliability reflects how accurate a measurement or calculation can be; it refers to the degree to which the results remain constant over time and accurately reflect the overall population under study (Wagemaker, 2020).

The questionnaire's reliability was tested to guarantee that similar results could be obtained if the questionnaire was directed at a similar group using a similar approach at a different time. This occurred during the pilot testing. Five academics with substantial experience in questionnaire design evaluated the questionnaire and determined that it was unambiguous, straightforward, clear, and comprehensible. Moreover, the questionnaire was found to be capable of producing the same findings when administered to the same respondents at different times (Wagemaker, 2020:12). To further test the questionnaire's reliability, a Cronbach's Alpha Coefficient reliability test was performed (Saunders et al., 2012; Arai et al., 2021) The Cronbach's Alpha Coefficient for the questionnaire's Likert scale questions is shown in the table below.



Table 3.2: Cronbach's Alpha Testing

Reliability Statistics			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	
.949	.952	22	

Key Items in the Questionnaire	Cronbach	Cronbach's
	Alpha	Alpha Std.
6. Kindly rate the usage of the following techniques by your		
business to forecast stock purchases to manage the stated risks.	0.951	0.954
7. Kindly rate the usage of the following measures by your		
business to control and monitor stock.	0.949	0.952
10. Kindly rate the following factors, if they hinder the		
effectiveness of stock management in your company	0.950	0.953
14. To what extent do you agree with the following statements		
on the effects of stock turnover on business financial		
performance?	0.948	0.951
Average Cronbach's Alpha Coefficient	0.949	0.952
	(0	

(Source: Author)

Note: the average Cronbach's Alpha Coefficient equals the total Cronbach's Alpha multiplied by the number of questions. Cronbach's Alpha coefficients for the questionnaire items were 0.949 for raw variables and 0.952 for standardised variables. Given the questionnaire's Cronbach's Alpha Coefficient value of greater than 0.7, it was determined to be reliable and internally consistent (Bruwer, 2010). According to Streiner (2003) and Arai et al., (2021), a Cronbach's Alpha Coefficient is acceptable if it exceeds 0.6, and above 0.7, it reflects a high degree of internal consistency and reliability.



3.9.2 Validity of the research instrument

Validity refers to the extent to which one can draw realistic conclusions about people or populations based on test results that reflect the field of study (Loewenthal & Lewis, 2019; Wagemaker, 2020:12). Another way of putting this is to say that validity refers to the degree to which a data-collection instrument accurately measures what it is designed to assess (internal validity) and if this accurately results in a valid conclusion (external validity) (Ewing & Park, 2020; Kaplan, 2020; Wagemaker, 2020:12).

3.9.2.1 Internal validity

Internal validity, according to Kaplan (2020), measures the extent to which an experiment examines what it is supposed to examine, namely the causal influence of independent variables on dependent variables. Internal validity can be of various types, but for present purposes, only construct and content validity were regarded significant, and these are detailed further below.

Construct validity

The term "construct validity" refers to the degree to which a research instrument accurately measures or operationalizes the construct under investigation (Aparasu & Bentley, 2014; Ewing & Park, 2020). Construct validity, in essence, addresses the following questions: Does the research instrument actually measure what it is supposed to assess? How pertinent are the survey questions to the study's objective? (Huisamen & Weyers, 2014; Ewing & Park, 2020).

A useful tool for determining construct validity is to conduct pilot testing (Jaccard & Jacoby, 2020). Five academic specialists with substantial experience in questionnaire design examined the questionnaire for this study. Their input was solicited by asking them to identify any potential flaws in the questionnaire that would jeopardise its construct validity. To improve that construct validity, the questionnaire was modified in ways suggested by the experts.

Another way of ensuring a questionnaire's construct validity is to link the sub-questions to the main one (Jaccard & Jacoby, 2020). In this study, the questions in the questionnaire were formulated essentially as elaborations of the first, second, third and fourth research sub-questions.



Content validity

The degree to which a research tool encompasses all facets of a given construct is referred to as content validity (Khan & Singh, 2021). To establish content validity, we also asked the five academics with extensive experience to advise on whether the research instrument covered all the components of the study's research objectives. The questionnaire was amended based on their recommendations to incorporate items that were thought to boost coverage, while eliminating those that were considered non-contributing. These were removed to consolidate the questionnaire's content validity.

3.9.2.2 External validity

External validity, as defined by Kaplan Test Prep (2020; cf. Khan & Singh, 2021), is a measure of how true to life or generalisable the findings of a study are to other settings, situations and periods. If an experiment has a high level of external validity, it accurately reflects how things work in the real world. For this study, the sample size of 50 SMEs in the mobile industry was deemed adequate as it included all the mobile industry SMEs listed on the Bizcommunity online directory for Cape Town, as well as additional referrals. Care was taken to include in the sample businesses located in various suburbs in Cape Town, to ensure that the findings were representative of the SMEs in the mobile industry as a whole and enhance their generalisability. As a result, external validity is determined to have been achieved in this survey.

3.10 Limitations of the questionnaire survey

According to Sreejesh et al., (2015), one of the limitations of the questionnaire survey is non-response bias. Non-response bias can arise when desired respondents decline to participate in the survey or do not respond to specific questions due to features that differentiate them from those who agree to complete the questionnaire or answer all questions of the questionnaire. Non-response bias diminishes the variability of the sampled population, culminating in a sampling bias that may render it unrepresentative of the studied population, thereby reducing the external validity of the findings (Okafor, 2013; Sreejesh et al., 2015).



Various decision-makers from a large number of mobile industry SMEs were approached, including managers, owners and accountants. They were encouraged to participate in the survey to reduce the impact of non-response bias. Additionally, the profiles of respondents were scrutinised to ensure that different SMEs in the mobile industry had answered the questionnaire. The researcher herself convinced several SMEs within the mobile industry to participate in the survey by explaining that all the information gathered would remain confidential and used solely for educational reasons.

Another limitation on questionnaires is a low response rate, which is also capable of rendering the results unrepresentative of the targeted population (Sreejesh et al., 2015). The risk of a poor response rate was minimised by including in the sample all the SMEs operating in the mobile industry in Cape Town, as indicated on Bizcommunity South Africa (2020). Furthermore, the questionnaire had solely closed-ended questions to reduce its length and increase participation.

3.11 Ethical considerations

Because the data collection instrument was a questionnaire, the study required approval from the CPUT's Faculty of Business and Management Sciences Ethics Committee. An application for ethical clearance was therefore submitted to the committee. The rules require that study participants must be safeguarded against social, physical and psychological injury, as well as any other adverse consequences of their participation in the research.

To adhere to the ethical standards for professional conduct in the social sciences during research, the ethical considerations detailed below were taken into account during the research for this study (Welman et al., 2018; Meagher & Master, 2019).

3.11.1 Informed consent

To adhere to the Ethics Committee's strict requirements, the researcher obtained permission from the external organisations (the sampled SMEs) to undertake a questionnaire survey. The researcher then visited some of the potential participants in person as well as contacted some by telephone to invite them to take part in the research. The researcher stated the study's aim to



potential respondents and emphasised that participating in the study was entirely optional and they were free to withdraw from the study at any moment. Furthermore, the researcher reassured potential participants that the information gathered would be utilised only for the study. Letters of consent were then handed out to some targeted participants. Others were emailed because the majority of the participants were intermittently working from home due to Covid-19 regulations. Prospective respondents were asked to read consent letters and, if necessary, ask clarifying questions. The questionnaire was handed over or emailed only after the consent of the respondent was obtained through a written signature.

3.11.2 Confidentiality and anonymity

Numerous precautions were taken to ensure the individuals' anonymity and the confidentiality of the information provided. To begin with, the respondents were informed that the dissertation would not contain any information such as personal or business names or addresses. Secondly, participants were given the option of remaining completely anonymous, and they were assured that any details they supplied would be kept strictly confidential and used exclusively for research reasons. Thirdly, data was collected anonymously to conceal the respondents' identities. The respondents were also informed that the study's findings would be made available to them upon request and otherwise be available on the CPUT website.

3.11.3 Voluntary participation

In order to ensure voluntary participation, the questionnaires were answered only by volunteers who were fully informed about the research project and had not been influenced by the researcher. The respondents were welcomed to participate on the explicit understanding that they were not obligated to do so and that there would be no negative consequences for declining. They were also assured that they might withdraw from the study at any moment should they wish to do so.

3.11.4 Distorting results

The information gathered from the survey and questionnaire was not fabricated. The researcher endeavoured to retain the maximum degree of objectivity as possible in the conduct of the research, including in the data analysis and related discussion.



3.12 Conclusion

The chapter discussed the researcher's research methodologies, highlighted the steps she took to assure the validity and reliability of the findings, and outlined the ethical standards for social research that she attempted to follow during the period of the study. The following chapter will present, discuss, and analyse the study's findings.



4 CHAPTER 4: ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter will present the findings of a questionnaire survey done in Cape Town, SA, to ascertain the effect of stock management on the financial performance of SMEs in the mobile industry. The findings were analysed and discussed, to assess whether the study's objectives have been met and the research questions answered.

The chapter commences by recapitulating the study's research objectives in Section 4.2. The response rate is then discussed in Section 4.3, followed by an account of the respondents' business and personal profiles in Section 4.4. Section 4.5 analyses and discusses the results regarding techniques used on forecasting stock purchases by SMEs in the mobile industry, while Section 4.6 focuses on the results in respect of stock management measures used by SMEs in the mobile industry. Section 4.7 contains an analysis and discussion of the results regarding factors that hinder the effectiveness of stock management in SMEs in the mobile industry, whereas Section 4.8 contains an analysis and discussion of the findings regarding the correlation between stock turnover and financial performance. Lastly, Section 4.9 gives an overview of the chapter as well as a conclusion to it.

4.2 Recapitulation of the objectives of the study

To accomplish the study's major objective of investigating "the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa," the researcher established the following sub-objectives:

- > To establish the techniques used for forecasting stock purchases by SMEs in the mobile industry in Cape Town
- To determine the stock management measures used by SMEs in the mobile industry in Cape Town for controlling and monitoring stock



- > To determine the factors that hinder the effectiveness of stock management among SMEs in the mobile industry in Cape Town
- > To establish the correlation between stock turnover and the financial performance (i.e. liquidity and profitability) of SMEs in the mobile industry in Cape Town, South Africa.

4.3 Response rate

Using the purposeful sampling technique, 50 questionnaire were distributed to SMEs in the mobile industry in Cape Town. Out of the 50, 40 were completed and 10 were not. The reason for non-completion was either refusal or the belief that stock management was irrelevant to the firm concerned. The 40 completed questionnaire represented a response rate of 80% (see Table 4.1). Given that the sample size was greater than the required minimum of 30 for a quantitative study, it is reasonable to assume that the sample size was representative of the target population (Eichler et al., 2018). As a proportion, it was higher than that used in other comparable research studies (Ahmad, 2012; Ocran et al., 2017). Furthermore, a 50% response rate for a research study is considered adequate, 60% good and 70%, excellent (Mugenda & Mugenda, 2003; Musando, 2013). In this context, an 80% response rate was ideal.

Table 4.1: Response rate

Description	Number of respondents	Percentages of respondents
Number of respondents invited	50	100%
to participate		
Declined to participate	(4)	(8%)
Misplaced questionnaire	(0)	(0%)
Do not do stock management	(6)	(12%)
Completed questionnaires	40	80%
received		

(Source: Researcher's own compilation)

4.4 Respondents' business and personal profile



The participants were requested to supply information about their respective business and personal profiles in Section A of the questionnaire. The business information required included the duration of the entity's operation and the number of employees, whereas the personal profile requested the respondent's position within the organisation, tenure in their present role and academic level. This information was intended to make sure that the people who were chosen for the study met the criteria for delineation and that those chosen had differing characteristics to reduce poor response bias.

4.4.1 Respondents' businesses: length of time in operation

With respect to the number of years that the respondents' enterprises had been in operation, analysis of the results reveals that 70% of the entities had been in existence for 6 to 15 years (6 to 10 and 11 to 15 years) (see Table 4.2), 20% had been in existence for 1 to 5 years, and 10% had been in operation for between 16 and 20 years. According to these findings, 80% of the enterprises had been in operation for at least 5 years and so had enough time to establish stock management processes, making them ideal for this study. Since the failure rate of SMEs in SA is high (Fatoki, 2014; Leboea, 2017), the information about these successful businesses should be useful to SMEs struggling to survive.

Table 4.2: Respondents' businesses: length of time in operation

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	0 to 5 years	8	20.0	20.0	20.0
	6 to 10 years	14	35.0	35.0	55.0
	11 to 15 years	14	35.0	35.0	90.0
	16 to 20 years	4	10.0	10.0	100.0
	Total	40	100.0	100.0	



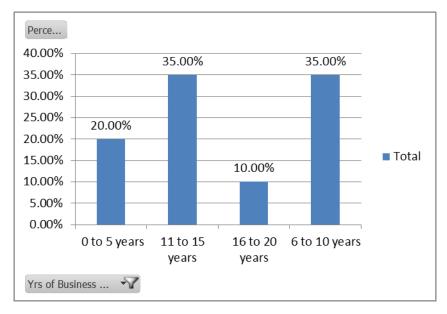


Figure 4.1: Respondents' businesses: length of time in operation

4.4.2 Respondents' businesses: number of employees

In terms of employee numbers, the results showed that 60% of businesses employed 50 to 250 people, whilst 25% reported that their enterprise employed 6 to 20 workers. Ten per cent of respondents reported 21 to 50 employees, while 5% had 1 to 5 employees in their companies. This meant that 95% of the sampled businesses could be classified as SMEs (with more than 5 but less than 250 employees), making them ideal participants in this study.

Table 4.3: Number of employees

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	0 to 5 employees	2	5.0	5.0	5.0
	6 to 20 employees	10	25.0	25.0	30.0
	21 to 50 employees	4	10.0	10.0	40.0
	51 to 250 employees	24	60.0	60.0	100.0
	Total	40	100.0	100.0	



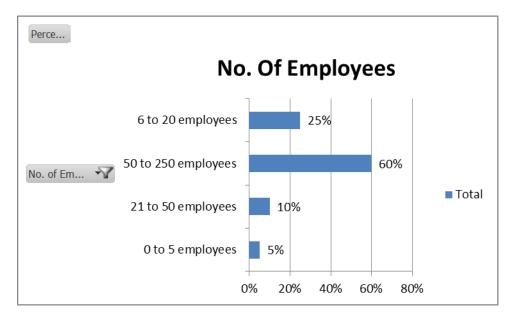


Figure 4.2: Respondents' businesses: number of employees

4.4.3 Respondents' position in the business

Forty per cent of respondents reported being accountants, 40% managers, 15% owners and managers and 5% owners (see Table 4.4 and Figure 4.3). Even though 60% of the respondents were not accountants, they were all involved in internal decision-making, which requires management accounting information and means that they should have been familiar with the stock management practices used within their company.

Table 4.4: The position of respondents within their business

				Valid	Cumulative
		Frequency	Percent	Percent	Percent
Valid	Accountant	16	40.0	40.0	40.0
	Manager	16	40.0	40.0	80.0
	Owner	2	5.0	5.0	85.0
	Owner & Manager	6	15.0	15.0	100.0
	Total	40	100.0	100.0	



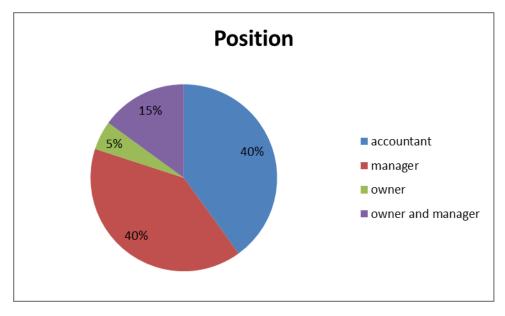


Figure 4.3: The position of respondents within their business

4.4.4 Respondents' years of experience

According to Table 4.5 and Figure 4.4 below, 45% of respondents had been in their present role for 1 to 5 years, another 45% for 6 to 10 years and 10% for more than 11 years. These results show that 55% of respondents had worked in their current jobs for more than 6 years, which means they should have been able to answer questions about how the business works.

Table 4.5: Number of years in the position

Valid T	Frequency	Percentage	Valid Percentage	Cumulative Percentage
0 to 5 years	18	45%	45%	45%
11 to 15 years	4	10%	10%	55%
6 to 10 years	18	45%	45%	100%
Grand Total	40	100.00%	100.00%	



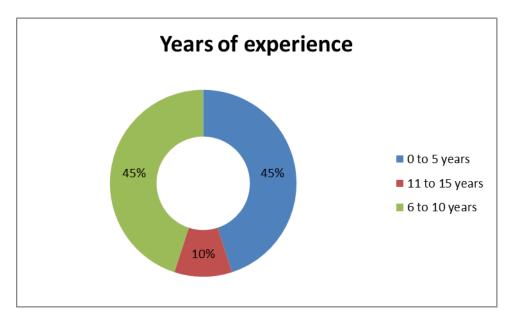


Figure 4.4: Number of years in the position

4.4.5 Respondents' levels of educational achievement

As shown in Table 4.6, only 10% of respondents had a matric qualification, 25% had national diplomas, 60% had bachelor's degrees, and 5% were Chartered Accountants. It can consequently be concluded that those who completed the survey had obtained adequate education to run or manage their firms. The vast majority of respondents (90%) had at least a diploma, indicating that they were well educated and hence should have been able to complete the questionnaire survey competently.

Table 4.6: Respondents' levels of educational achievement

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's degrees	24	60.0	60.0	60.0
	Chartered Accountant	2	5.0	5.0	65.0
	Grade 12	4	10.0	1.0	75.0
	National Diploma	10	25.0	25.0	100.0
	Total	40	100.0	100.0	





Figure 4.5: Respondents' Levels of educational attainment

4.4.6 Summary of the demographic information

In sum, the respondents were well-positioned for this study because of the following;

- ➤ 80% of the firms had been in operation for more than 5 years, giving them adequate time to adopt stock management processes, making them ideal for this study
- > 95% of the sampled firms could be classified as SMEs (more than 5 but less than 250 employees), making them a good fit for this study
- Although only 40% of respondents were accountants, the remaining 60% were all involved in the organisation's decision-making, which necessitates management accounting information. They should thus have been familiar with the stock management practices in their business
- > 55% of respondents had more than 6 years of experience in their respective positions and therefore could be anticipated to be well-informed about the business's operations



➤ The vast majority of respondents (90%) had at least a diploma, indicating that they were well educated and hence should have been able to complete the questionnaire survey competently.

4.4.7 Non-response bias

As reflected in the above, a diverse sample of respondents was chosen for this study because they held various roles, possessed different educational backgrounds, and worked in SMEs of various sizes in the mobile industry. One can conclude that the questionnaire was answered by respondents positioned across a wide range within the spectrum of possible participants. This, in conjunction with the high response rate of 80%, has resulted in a reduction of the non-response bias often inherent with questionnaire surveys.

4.5 Techniques used for forecasting stock purchases by SMEs in the mobile industry

Section B of the questionnaire consisted of a single question with six parts (6 a-f) designed to rate the usage of techniques for forecasting stock purchases. The respondents were asked to rate their level of agreement or disagreement with 6 statements using a five-point Likert scale with the following weightings: Strongly disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5.

As depicted in detail in Fig. 4.6, 5% and 85% strongly agreed and agreed, respectively, meaning that 90% "agree" (see also Table 4.7, below) that their firms prepare stock budgets before purchasing stock, while a total of 10% "disagree" that their firms prepare stock budgets before purchasing stock. To facilitate presentation, the percentages of those who strongly agreed or agreed with the assertions were combined for presentation in Table 4.7. Those who could not agree or disagree with the statements – being unable to commit to a distinct stance – were grouped together as disagreeing with them. This technique is justified since it guaranteed that only those who strongly agreed or agreed with the claims were recorded as such. It has been utilised effectively in other management accounting research (Mjongwana & Kamala, 2018; Ntshonga, 2019).



As depicted in Table 4.7 below, 65% disagreed that their firms relied on common sense to ascertain the quantity of stock to be purchased while, 35% agreed. Moreover, 40% agreed that their business received stock from suppliers as and when it is required rather than consistently carrying large volumes of stock (just-in-time stock control). The majority of the respondents (90%) disagreed that their business received stock from suppliers prior to payment on the consignment system. Just on 50% agreed that their business calculated the order quantity to minimise total holding and stock ordering costs (economic order quantity). The current study's findings are similar to those of Maduekwe and Kamala (2016), who reported that 67% of SMEs in the Cape Town used stock budgets. The findings are also consistent with those of Kibangou (2019), who found that 70.7% of firms used budgets and 29.3% did not.

Mean and standard deviation were used in further statistical analysis using SPSS to demonstrate the data's spread and highlight the respondents' diversity. The derived means were identical to the percentages given. More than half the statements have standard deviations of less than one, indicating that the respondents were in agreement with one another.

The findings above also corroborate the contingency hypothesis, which holds that the applicability of accounting practices to a particular institution is contingent on situational elements such as technology, organisational size, market competitive strength, and the level of accounting staff qualification (Islam & Hu, 2012; Maziriri & Mapuranga, 2017). For instance, the size of an organisation has an impact on its employment of stock management as a management accounting procedure or tool, since larger companies tend to have the resources to employ sound stock management. There is therefore a positive correlation between the size of the entity and the adoption of sound and advanced stock management accounting techniques.



Table 4.7: Rating of the techniques used by the business to forecast stock purchases

Usage of the techniques used by the business	Percentage	Respondents	Standard
to forecast stock purchases	usage of		Deviation
	techniques to		
	forecast stock		
		N=40	
		Mean	
The firm prepares stock budgets before	90.0%	3.90	0.545
purchasing stock			
The firm relies on common sense to determine	35.0%	3.20	0.758
the quantity of stock to be purchased.			
The business receives stock from suppliers as	40.0%	3.45	0.597
and when it is required rather than carrying the			
large volumes of stock at once (just-in-time)			
The business receives stock from the suppliers	10.0%	3.00	1.468
before payment; the suppliers still own the stock			
and the payments will be made once the stock			
has been sold (consignment stock)			
The business calculates the order quantity that	50.0%	1.65	1.027
minimises the total holding and stock ordering			
costs (economic order quantity)			



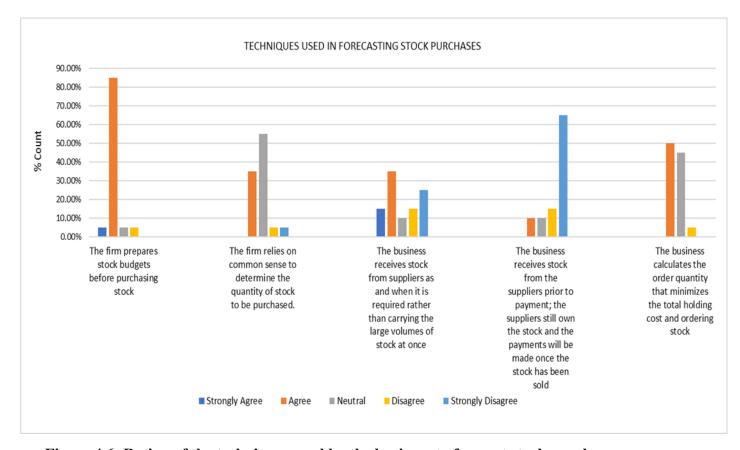


Figure 4.6: Rating of the techniques used by the business to forecast stock purchases

4.6 Stock management measures used by SMEs in the mobile industry

Section C of the questionnaire was designed to address the second research objective, that is, to determine the stock management measures used by SMEs in the mobile industry in Cape Town for controlling and monitoring stock. There were three questions in section C, questions 7, 8 and 9. In Question 7, there were 8 parts (a-h). The questions, formulated to rate the usage of measures used to control and monitor stock in the mobile industry in Cape Town, required a response on a five-point Likert scale (Strongly disagree = 1, Disagree= 2, Neutral= 3, Agree= 4, Strongly Agree = 5).

As depicted in Fig. 4.7, 5% and 75% strongly agreed and agreed respectively, totalling 80% who agreed that their firm's stock control was performed manually (see also Table 4.8). On the other



hand, 20% disagreed that their firm's stock control was performed manually. To make it easier to understand, the percentages of those who strongly agreed or agreed with the assertions were combined and presented in Table 4.8 as "percentage that agrees with the statement". In addition, the respondents who neither agreed nor strongly agreed with the remark are grouped together as disagreeing with it, as the terms imply the absence of a distinct opinion. This technique is justified since it guaranteed that only those who indicated that they strongly agreed or agreed with the claims were reported as such, and – as pointed out previously – it has been used successfully in other management accounting research (Mjongwana & Kamala, 2018; Ntshonga, 2019).

Furthermore, as shown in Table 4.8 below, 55% of respondents reported that stock control was performed using a computer system, while only 35% indicated that their firms had dedicated staff to manage the warehouse. A total of 50% confirmed that their workers followed defined protocols for receiving and issuing stock from the warehouse, while 45% confirmed that the movement of stock was verified and authorised by management. Moreover, only 30% reported that every movement of stock is recorded on stock cards, 60% stated that their stock records were maintained according to periodic physical records, while 30% of the respondents reported that stock records were maintained on a perpetual system. The mean values of the findings reflected the preceding percentages. The standard deviations were greater than one for more than half of the statements. These findings revealed a mixed reaction, with nearly equal percentages of respondents agreeing and disagreeing with the assertions.

The preceding findings also mirror those of Kanguru (2016), who found that only 40% of SMEs surveyed used computers to manage stock. In an earlier study in Ghana, it was found that manual notebooks were used by 57% of Ghanaian SMEs for recording transactions and approximately 1% used computer software for tracking stock (Agyei & Marfo-Yiadom, 2011).

These results corroborate the contingency theory, which asserts that there is no universally applicable accounting system that applies equally to all organisations in all circumstances (Otley, 2016:46). The effectiveness of various components of an accounting system is contingent upon



the unique conditions in which an enterprise found itself. In the context of this study, different stock management practices are perceived differently according to the unique scenarios in which SMEs find themselves.

Table 4.8: Rating of the usage of measures by SMEs to control and monitor stock

Measures for controlling and monitoring stock	Percentage usage of monitoring stock measures	Respondents	Standard Deviation
		N=40	
		Mean	
Stock control is performed manually.	80%	3.45	1.260
Stock control is performed using a computer system.	55%	3.30	1.506
The company has dedicated staff to manage the warehouse.	35%	2.60	1.374
There are clear procedures followed by the staff for receiving and issuing stock from the warehouse.	50%	3.25	0.954
The movement of stock is verified and authorised by the management.	45%	3.20	1.043
Every movement of stock is recorded on the stock cards.	30%	2.25	1.463
Stock records are maintained based on periodic physical records.	60%	3.50	0.751
Stock records are maintained based on a perpetual system.	30%	2.80	1.522



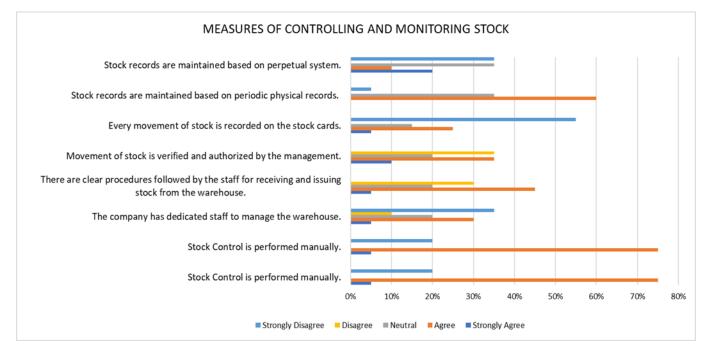


Figure 4.7: Rating of the usage of measures by SMEs to control and monitor stock

Question 8, "Does your company conduct stocktaking?" invited the informants to answer "yes" or "no" in order to ascertain whether or not SMEs in the mobile industry in Cape Town conducted stocktaking and to filter the respondents proceeding to question 9, "How often does your company conduct stocktaking?" This answer required a choice from among daily, weekly, monthly, bi-annually, or annually.

The data from question 8 depicted in Table 4.9 and summarised in Fig. 4.8 provides information about stocktaking practices. A Binominal Test was performed and the findings indicate a statistically significant difference in the percentages. A large majority, 90%, of the respondents reported that their business conducted stocktaking, whereas 10% claimed not to engage in stock taking. Fig. 4.8 also depicts that 90% of those who conduct stocktaking do so monthly.

According to the results, the majority of the sampled enterprises conduct stocktaking, which is a good practice for stock control. Stock control is essential for a business to maintain stock accuracy, spot causes of shrinkage, and ensure there is always the right amount of stock at the right time. Stock control systems help the business to know whether controls are in place



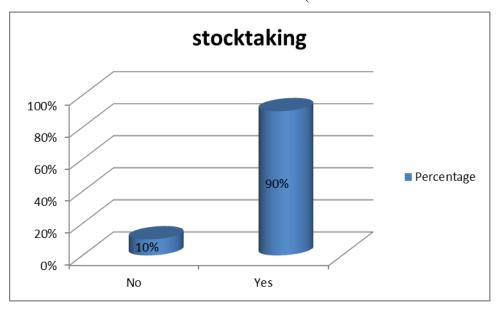
effectively to manage risks relating to internal stock control, whether there is an oversight body for the effective monitoring of objectives, strategies and results regarding stock control, and to determine whether the expected stock control results are clearly defined and monitored (Eminuei et al., 2019).

In sum, considering that 90% of the respondents conduct stocktaking on a monthly basis, one can conclude that stock control in conjunction with stocktaking is perceived to be essential for SMEs. This result is consistent with the findings of Fatoki (2014), which revealed that most (57%) of SMEs in SA conducted stocktaking, as well as the findings of Kanguru (2016), who reported that most SMEs (83%) in the Cape Metropole, South Africa, conducted stocktaking.

Table 4.9: Whether or not stocktaking is conducted

Binomial Test

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2- tailed)
Q8	Group 1	1	36	.90	.50	.000
	Group 2	2	4	.10		
	Total		40	1.00		





Stocktaking

100%
80%
60%
40%
20%
0%
Percentage

Figure 4.8: Whether or not stocktaking is conducted

(Source: Researcher's own compilation)

Figure 4.9: Frequency of stocktaking

4.7 Factors that hinder the effectiveness of stock management among SMEs in the mobile industry

Section D of the questionnaire addressed the third research objective, namely to determine the factors that hinder the effectiveness of stock management among SMEs in the mobile industry in Cape Town. In question 10, respondents were asked to identify factors hindering the effectiveness of stock management in their business, using a five-point Likert scale with weightings: Strongly disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, Strongly Agree = 5.

For the sake of clarity, the percentages of the respondents who agreed and strongly agreed to factors that hinder the effectiveness of stock management were incorporated and recorded as "Agree" in Table 4.10. Those who disagreed or strongly disagreed or who remained neutral were reported as "Disagree". This technique is acceptable since it assures that only individuals who



expressed agreement were reported as such, and it has been used successfully in other management accounting research (Mjongwana & Kamala, 2018; Ntshonga, 2019).

As depicted in Table 4.10, below, the factor that hindered the effectiveness of stock management the most was perceived to be inexperienced staff (60%). This was followed by a lack of technology (45%), poor store records (40%), and inadequate funds (35%). Other factors agreed upon by only a minority of respondents included poor communication (15%) and lack of skills and knowledge on the part of employees (10%).

These findings contrast with those of prior studies that identified the factors that hinder stock management in SMEs as a lack of awareness among top management of the importance and utility of management accounting, a lack of innovation, suppliers with poor store records, and a lack of technology and the learning and sharing of knowledge and skills (Chan et al., 2017; Olowolaju & Mogaji, 2020). On the other hand, this study's findings are consistent with those of Maduekwe and Kamala (2016), Mjongwana and Kamala (2018) and Ntshonga (2019), who have reported that SMEs are hindered from adopting management accounting practices because of high implementation costs, the length of time required for implementation, a shortage of employees, a lack of resources, a shortage of qualified professionals and a lack of skills.

Moreover, the scores for inexperienced staff were (Mean = 3.45, SD = 0.815), lack of skills and knowledge among the employees (Mean = 3.0, SD = 0.453) and poor communication (Mean = 3.20, SD = 0.823). These findings showed a standard deviation of less than one, indicating agreement among the respondents on the above-mentioned statements about factors that hinder the effectiveness of stock management for SMEs in the mobile industry. However, fewer statements had results that were just above one, indicating a mixed reaction in that the proportions of people who agreed with the statement and those who disagreed were nearly equal.

These findings are consonant with contingency theory, which states that certain contingency factors have to be present for an organisation to implement sound stock management. These include technology, knowledge and expertise, qualified accounting staff and sufficient numbers



of staff. According to the theory, the sampled SMEs in the mobile industry face challenges when attempting to implement sound stock management because of these factors. In addition, the smallness of these entities may render their adoption of sound stock management practices cost-ineffective.

Table 4.10: Rating of factors according to whether or not they hinder the effectiveness of stock management in the company

Factors that hinder the effectiveness	Percentage that	Respondents	Standard
of stock management	agreed with the		Deviation (SD)
	statement		
		N=40	
	Agree	Mean	
Inadequate funds	35%	2.80	1.137
Inexperienced staff	60%	3.45	0.815
Lack of skills and knowledge among	10%	3.00	0.453
employees			
Poor communication	15%	3.20	0.823
Poor store records	40%	3.60	1.033
Lack of technology	45%	3.25	1.104



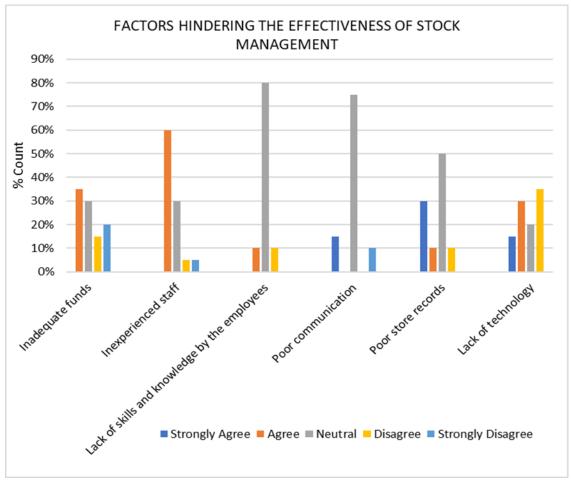


Figure 4.10: Rating of factors according to whether or not they hinder the effectiveness of stock management in the company

4.8 Correlation between stock turnover and financial performance

The last section of the questionnaire, section E, consisted of two categories, the first consisting of multiple-choice questions – Questions 11 to 13 – and the second, Question 14, requiring an answer on the five-point Likert scale. This section was sought to address the fourth research objective, to establish the correlation between stock turnover and the financial performance of SMEs (i.e., liquidity and profitability) in the mobile industry in Cape Town, South Africa.



In Question 11, the respondents were requested to indicate whether their business had a low, medium, or high stock turnover rate. As shown in Table 4.11 and Figure 4.11, 60% of the respondents indicated a medium turnover of stock, 35% reckoned it was low and 5% said it was high. These results were used to assess the impact of stock turnover investigated in Question 14. Previous studies have revealed that if stock management is neglected and stock turnover is very low, serious long-term profitability problems will arise, which may lead to liquidity issues as well (Radasanu, 2016; Otuya & Eginiwin, 2017).

Table 4.11: Description of the rate at which company's stock is sold (stock turnover)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High	2	5.0	5.0	5.0
	Low	14	35.0	35.0	40.0
	Medium	24	60.0	60.0	100.0
	Total	40	100.0	100.0	



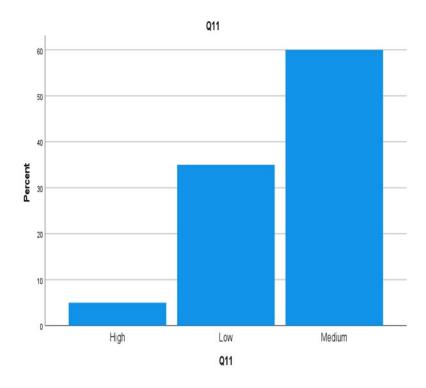
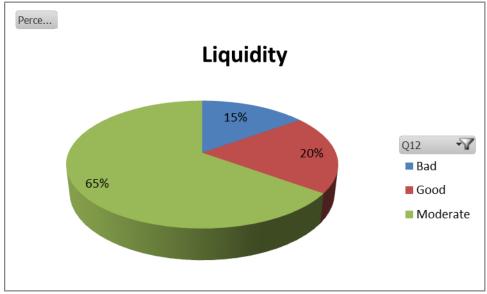


Figure 4.11: Description of the rate at which company's stock is sold (stock turnover)

In Question 12, the respondents were asked to describe their enterprise's cash position (liquidity), choosing among the responses "good", "moderate" and "bad". This is illustrated in Figure 4.12, which shows that 65% of the respondents described their business's liquidity position as moderate, 20% as good and 15% as bad. When this question is juxtaposed with Question 11, it appears that when stock turnover is very low, liquidity will also be bad, whereas when stock turnover is high, liquidity will be good. These results concur with those of Radasanu (2016) and Otuya and Eginiwin (2017), who found that when stock turnover is very low, serious long-term profitability issues will arise that may lead to liquidity problems.





(Source: Researcher's own compilation)

Figure 4.12: Description of company's cash position (liquidity)

Question 13, "How would you describe your company's returns?", which required a choice of response from among "obtaining loses", "breakeven" and "obtaining profits", sought to ascertain whether SMEs in the mobile industry in Cape Town were profitable. As shown in Figure 4.13, 60% of the respondents described the returns of their businesses as breakeven, 20% as making losses and 20% as obtaining profits. Moreover, when these figures are aligned with the responses to Question 11, it emerges that when stock turnover is low, the enterprises make a loss, when stock turnover is moderate the enterprises break even, and when stock turnover is high the SMEs make a profit. These findings concur with those of Radasanu (2016) and Otuya and Eginiwin (2017), who found that when stock turnover is very low, serious long-term profitability problems will arise.





Figure 4.13: Description of the company's returns

Having described their business stock turnover, liquidity position and returns, the respondents were asked in Question 14 to rate the effects of stock turnover on business financial performance. The purpose of questions 11-14 was to establish what correlation existed between stock turnover and the financial performance (i.e. liquidity and profitability) of SMEs in the mobile industry in Cape Town, SA. In this regard, stock turnover was used as a measure of the effect of stock management. As was argued in Chapter 2, stock turnover can be an indicator of sound stock management. This argument is supported by Prabhu (2021) as well as by Otuya and Eginiwin (2017).

The findings – as encapsulated in Table 4.12 – reveal that most respondents agreed that stock turnover has a positive effect on profitability (90%). A large number of respondents also agreed that stock turnover has a positive effect on the cash position (liquidity) of the business (70%). To ensure clarity and succinctness, the percentages of those who agreed or strongly agreed were added to the second column of Table 4.12 and expressed as "percentage that agreed with the statement." In addition, as has previously been done, those who expressed neither agreement nor disagreement with the remark are represented as disagreeing with it. This approach is acceptable



because it ensures that only those who indicated that they strongly agree or agree with the assertions are reported as such, and because it has been successfully employed in previous management accounting research (Mjongwana & Kamala, 2018; Ntshonga, 2019).

At least 70% of respondents agreed with both of the statements about the effects of stock turnover on the financial performance of SMEs operating in the mobile industry, albeit to a varying extent. The findings were Mean = 3.25, SD = 1.325 for the effects of stock turnover on liquidity. These findings revealed a mixed response, with approximately equal proportions of participants agreeing and disapproving. A further finding was Mean = 3.95, SD =0.749 for the effects of stock turnover on profitability. This means that if the SMEs in the mobile industry practised sound stock management, this would enhance stock turnover, reduce expenses and improve customer experience, and profitability would be increased. These findings are consistent with those of Lwiki et al., (2013) and Kakeeto (2017), who found that stock management has a positive impact on organisational profitability.

To sum up, the SMEs with higher stock turnover performed better than those with lower stock turnover. Stock management is critical for achieving greater stock turnover, which in turn results in greater profitability and a more favourable liquidity position for a business. Otuya and Eginiwin (2017) also reported that the SMEs with higher stock turnover appeared to perform better than those with lower stock turnover. Bibi and Amjad (2017) argue that stock management is crucial to enterprises since it indirectly affects the firm's profitability and liquidity. Firms should therefore closely monitor both profitability and liquidity, as sacrificing either one could lead to serious problems for the enterprise.

Table 4.12: Rating the effect of stock turnover on financial performance

Effects of stock turnover on business financial performance	Percentage that agree to a great extent	Respondents	Standard Deviation (SD)
		N=40	
	Great extent	Mean	
The company stock turnover has a positive effect on the cash position	70%	3.25	1.235



(liquidity) of the business.		
The company stock turnover has a positive effect on the profitability of the	3.95	0.749
business.		

(Source: Researcher's own compilation)

4.8.1 Correlation Analysis

Pearson correlation analysis was performed using SPSS on the responses to questions 11-13 to establish the degree of correlation between stock turnover and the financial performance of SMEs in the mobile industry in Cape Town, SA. As depicted in Table 4.13, it was found that there was a 0.655 positive correlation between stock turnover and liquidity as well as a 0.710 fairly strong positive correlation between stock turnover and profitability. The results therefore reveal that stock management has a positive effect on the financial performance of a business. These findings are consistent with those of Danlami (2016), who examined the impact of stock management on the financial performance of Nigerian conglomerate firms. For the Pearson correlation, Danlami's (2016) research findings indicated a positive and significant correlation between stock management and financial performance. Similarly, a study by Orobia et al., (2020) investigated whether stock management plays a mediating role between managerial competence and financial performance. Their results revealed a 0.50 positive correlation between stock management and financial performance for small enterprises, as well as a 0.663 positive correlation between managerial competency and financial performance.

Table 4.13: Correlation between stock turnover and financial performance

Correlation between stock turnover and liquidity			Correlation between stock turnover and profitability					
Correlations				Correlations				
		Q11	Q12			Q11	Q13	
Q11	Pearson Correlation	1	.655	Q11	Pearson Correlation	1	.710**	
	Sig. (2-tailed)		.000		Sig. (2-tailed)		.000	
	N	40	40		N	40	40	
Q12	Pearson Correlation	.655**	1	Q13	Pearson Correlation	.710**	1	
	Sig. (2-tailed)	.000			Sig. (2-tailed)	.000		
	N	40	40		N	40	40	



The preceding findings further corroborate the contingency theory, which asserts that an accounting practice's suitability for a given business is dependent on the entity's contingent circumstances, such as market competition, technology and the qualification levels of accounting personnel (Islam & Hu, 2012; Maziriri & Mapuranga, 2017). It appears that certain contingent factors that make management accounting techniques such as stock management suitable for organisations already exist among SMEs. For instance, the more advanced the level of technology employed by a business, the better informed their decision-making will be and the more likely it will be that they adopt appropriate management accounting techniques such as sound stock management. The prevalence of low-cost technology has made it accessible to entities of all sizes, which nevertheless face the challenge of hiring properly qualified accountants.

4.9 Summary and conclusions

The purpose of this chapter was to analyse and discuss the results of the study conducted to investigate the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, SA. The chapter analysed and discussed the responses to questions on the techniques used in forecasting stock purchases by SMEs in the mobile industry, the stock management measures they employ, the factors that hinder the effectiveness of stock management, as well as the correlation between stock turnover and financial performance among the SMEs concerned.

The results revealed that the majority of SMEs (90%) prepare stock budgets before purchasing stock, while a minority use common sense to decide the quantities of stock to be purchased. It was also found that the most commonly used stock management technique was the economic order quantity (50%), followed by just-in-time (40%) and the consignment stock method (10%).

Concerning the use of stock management measures, 80% agreed that their firms' stock control was performed manually, while 55% said it was performed using computer systems. Only 50% confirmed that defined procedures for receiving and issuing merchandise from the warehouse



were followed, while 45% confirmed that the movement of stock had to be verified and authorised by management. A mere 30% reported that every movement of stock was recorded on stock cards. Most respondents (60%) stated that stock records were maintained on a periodic physical basis, while 30% reported that stock records were maintained according to the perpetual system. Moreover, 35% of respondents said their companies had dedicated staff to manage the warehouse. This indicates that a large percentage of the SMEs are either computerised or have excellent manual record-keeping and stock-taking processes.

Regarding factors that hinder the effectiveness of stock management, inexperienced staff (60%) was the problem most commonly identified by respondents, followed by a lack of technology (45%), poor store records (40%), and inadequate funds (35%). Other factors included poor communication (15%) and lack of skills and knowledge on the part of employees (10%).

With regard to the correlation between stock turnover and the financial performance of the SMEs operating in the mobile industry, 60% of the respondents indicated that their stock turnover was medium, 35% said it was low and 5% said it was high. The liquidity position of their business was described as moderate by 65% of the respondents, good by 20% and bad by 15%. Moreover, 60% of the respondents said their business's returns were breakeven, 20% were sustaining losses and 20% were making a profit. The vast majority of respondents (90%) agreed that a company's stock turnover had a positive effect on profitability. A substantial percentage of respondents (70%) agreed that stock turnover had a positive effect on the cash position (liquidity) of the business. The results showed a 0.655 positive correlation between stock turnover and liquidity, as well as a 0.710 (fairly strong) positive correlation between stock turnover and profitability. As a result, the study has revealed that stock management has a positive effect on the financial performance of a business.

The rigour with which the researcher conducted her investigation enabled her to reach credible and reliable conclusions, which are detailed in Chapter 5. Also in Chapter 5, the implications, contributions, and constraints of the study will be discussed, as well as recommendations made for future research studies.



CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study aimed to investigate the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, SA. The study was driven by the topicality of the subject and the dearth of research devoted to it. A questionnaire survey was administered to accomplish the study's objective. This chapter revisits the study's problem statement and research questions to determine how effectively the findings addressed its research objectives and questions. Subsequently, conclusions are drawn and recommendations are made.

The chapter begins by restating the research problem and objectives from Chapter 1. Following that, in Section 5.3, is a summary of the review of literature on stock management and financial performance. An encapsulation of the study's research design and methodology, as presented in Chapter 3, ensues in Section 5.4. Thereafter, Section 5.5 summarises and concludes the analysis and discussion of the study's findings, as reported in Chapter 4. Section 5.6 makes certain recommendations arising from the study while Section 5.7 adumbrates its contribution and significance. This is followed by an account of the study's shortcomings in Section 5.8 and recommendations for future research in Section 5.9. Section 5.10 summarises and concludes the chapter.

5.2 Chapter 1: Research problem, main question, sub-questions and objectives

5.2.1 Problem statement

The problem investigated in this research study is that SMEs operating in SA's mobile industry are perceived to be underperforming, partly due to a lack of sound stock management.

5.2.2 Objective Statement

The study's primary objective was:

To investigate the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa.



5.2.3 Research objectives

To fill the gap evidenced by a scarcity of research concerning the effect of stock management on the financial performance of SMEs, the following objectives were formulated:

- To establish the techniques used for forecasting stock purchases by SMEs in the mobile industry in Cape Town, South Africa
- > To determine the stock management measures used by SMEs in the mobile industry in Cape Town for controlling and monitoring stock
- > To determine the factors that hinder the effectiveness of stock management among SMEs in the mobile industry in Cape Town
- > To establish the correlation between stock turnover and the financial performance (i.e., liquidity and profitability) of SMEs in the mobile industry in Cape Town, SA.

5.2.4 Main research question

The following core research question was formulated to address the research gap concerning the effect of stock management on financial performance:

❖ What are the effects of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa?

5.2.5 Research sub-questions

To delve deeper into the primary research question, the following investigative sub-questions were constructed:

- ➤ What are the techniques used in forecasting stock purchases by SMEs in the mobile industry in Cape Town, SA?
- ➤ Which measures of controlling and monitoring stock are used by SMEs in the mobile industry in Cape Town?
- ➤ What factors, if any, hinder the effectiveness of stock management among SMEs in the mobile industry in Cape Town?



➤ To what extent does stock turnover affect the financial performance (i.e., liquidity and profitability) of SMEs in the mobile industry in Cape Town, SA?

5.3 Chapter 2: Summary of and conclusions drawn from prior literature on stock management and financial performance

The purpose of Chapter 2 was to analyse, describe and synthesise the findings of prior studies on stock management and financial performance. The chapter identified problems in stock management that affect SMEs. It revealed certain gaps in the literature on decision-makers' views of the usefulness of existing stock management practices and the factors that prevent SMEs from practising sound stock management.

The chapter commenced by outlining a theoretical framework based on the contingency theory of Management Accounting. This was followed by the definition and classification of SMEs as well as a brief discussion of their significance to the SA economy. An overview of the mobile industry was provided, and the concepts of stock management and financial performance were discussed. This was followed by a review of prior studies on the management of stock in the mobile industry, and on stock management and financial performance.

Emanating from the review of existing literature, the gaps set out below were established:

- ❖ Most of the prior studies were not conducted in South Africa and therefore the generalisability of their findings is questionable in a South African context
- ❖ Most of the studies on the subject matter used samples from other sectors, particularly the manufacturing industry, or large companies. This casts doubt on the relevance of the findings to SMEs in the mobile industry.
- ❖ Some of the studies were dated, having been conducted more than 5 years ago, and therefore their findings may no longer be valid
- ❖ There is a dearth of research studies on the effect of stock management on the financial performance of SMEs operating in the mobile industry in Cape Town, South Africa, constituting a gap that needs to be addressed by new research.



Given the scarcity of relevant research and the nature of the research questions to be answered, this study seemed both necessary and timely.

5.4 Chapter 3: Research design and methodology

Chapter 3's purpose was to discuss the research methods utilised to collect the data necessary to accomplish the study's objectives. Quantitative data was acquired using a questionnaire survey and analysed using descriptive and inferential statistics. The chapter began by describing and justifying the positivist paradigm that underpins the investigation, going on to justify the questionnaire survey methodology utilised in the study. The chapter next described the research population, sample technique, and questionnaire design.

The chapter described a pilot survey run by the researcher to ensure that the questionnaire was clear, succinct, and comprehensible. An account of the data collection process followed, as well as a description of the data analysis methods used and the steps taken to verify the research instrument's reliability and validity. Then some notice was given to the limitations of the questionnaire survey methodology used and the actions taken to overcome them. Finally, attention was paid to the ethical considerations respected by the research.

As a result of careful consideration of the research methodology, and the measures taken to verify the research instrument's reliability and validity, the researcher concluded that the methodology was appropriate to address the research objectives of the study.

5.5 Chapter 4: Summary of analysis and discussion of results

This chapter analysed and discussed the results of the questionnaire survey conducted to investigate the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, SA. The results were presented and discussed in separate parts devoted to each of the study's four objectives. The findings that respond to the research objectives are summarised as follows:



5.5.1 Research objective 1: Techniques used for forecasting stock purchases by SMEs in the mobile industry

As far as the techniques used by SMEs in forecasting stock purchases were concerned, the results revealed that the majority of SMEs (90%) prepare stock budgets before purchasing stock, while a minority relies on common sense to determine the quantity of stock to be purchased. It was found that the most commonly used stock management technique was the economic order quantity (50%), followed by just-in-time (40%) and the consignment stock method (10%).

5.5.2 Research objective 2: Stock management measures used by SMEs in the mobile industry

Concerning the use of stock management measures, the findings revealed that 80% of respondents reported that their firms' stock control was performed manually, while 55% said it was performed using computer systems. Furthermore, 50% confirmed that there were clear procedures followed by their staff for receiving and issuing stock from the warehouse, while 45% indicated that the movement of stock was verified and authorised by management. In addition, only 30% reported that every movement of stock is recorded on stock cards; 60% of respondents noted that stock records were maintained according to periodic physical checks, while 30% reported that they were maintained on a perpetual system basis. Moreover, 35% of respondents explained that their companies had dedicated staff to manage the warehouse. Overall, this indicates that the SMEs were either computerised or had excellent manual record-keeping systems and stocktaking practices.

5.5.2 Research objective 3: Factors that hinder the effectiveness of stock management among SMEs in the mobile industry

Regarding the factors that hinder the effectiveness of stock management, the findings revealed that inexperienced staff (60%) was the factor most commonly identified by respondents. This was followed by a lack of technology (45%), poor store records (40%), and inadequate funds (35%). Other factors reported by a minority of respondents included poor communication (15%) and lack of skills and knowledge on the part of employees (10%).



5.5.2 Research objective 4: Correlation of stock turnover and financial performance

Concerning the correlation of stock turnover and financial performance, the findings revealed that 60% of the respondents characterised their stock turnover as medium, 35% said it was low and 5% said it was high. The liquidity positions of their businesses were described as moderate by 65% of the respondents, good by 20% and bad by 15%. At the same time, 60% of the respondents said their business's returns were breakeven, 20% were sustaining losses and 20% were making a profit. Moreover, the majority of the respondents (90%) agreed that a company's stock turnover had a positive effect on profitability. In addition, a substantial percentage of respondents (70%) agreed that stock turnover had a positive effect on the cash position (liquidity) of the business. Furthermore, the study showed a 0.655 positive correlation between stock turnover and liquidity, as well as a 0.710 (fairly strong) positive correlation between stock turnover and profitability. As a result, the study demonstrated that stock management is perceived to have a positive effect on the financial performance of a business.

Overall, the findings indicated that sound stock management has a positive effect on the financial performance of SMEs in the mobile industry in Cape Town, SA.

5.6 Recommendations

On the basis of the findings, the following recommendations are provided for distinct categories of stakeholders.

5.6.1 Recommendations for the owners of SMEs

The findings revealed that sound stock management has a positive effect on the liquidity and profitability of SMEs. The researcher therefore recommends that owners and managers of SMEs in the mobile industry pay attention to the introduction and maintenance of sound stock management practices in their businesses to improve their financial performance.

SMEs operating in the mobile industry and other sectors should be educated on the benefits of fully committing to sound stock management practices in their operations through frequent training and workshops, regardless of the obstacles they encounter or the deterrents they face. It is also of paramount importance for SMEs to practise sound stock management in order to assess



their risks and uncertainties, as well as to reduce stock-related wastages. Failure to monitor and control stock in their business is detrimental to their profitability as well as their liquidity. Sound stock management can make the difference between failure and success.

5.6.2 Recommendations for the government and Department of Small Business Development

These recommendations are cognisant of the critical contributions that SMEs make towards economic growth, job creation and poverty reduction, as well as the challenges that the SME participants in the study enabled the researcher to identify. These challenges include high levels of taxes, difficulties acquiring financing and either no or insufficient government assistance. The researcher therefore proposes that the state, through the Ministry of Small Business Development, assist the SME sector by developing and sustaining a highly favourable environment for economic growth. The researcher also recommends that the government offer subsidies to SMEs and encourage commercial banks to lend to them, even if this means that the government has to guarantee loans made to SMEs. It is also imperative for the government to consider lowering taxes and providing tax incentives to SMEs in their early years of operation when this is most needed. The government should provide incentives for SMEs' decision-makers to attend seminars on management accounting – for instance, on stock management practices – to improve the survival rate of SMEs.

5.6.3 Recommendations for mobile service providers

The major problems perceived to be contributing to stagnating financial performance in SMEs in the mobile industry are high stock costs and excessive related stock costs, such as storage fees and insurance (Mpwanya & Van Heerden, 2015; Lang, 2018). The respondents complained that SMEs operating in the mobile industry have inadequate funds, inexperienced staff, a lack of skills and expertise by employees, poor communication, poor store records, as well as a lack of technology, all of which affect the performance of a business. To address the root cause of poor financial performance (i.e., liquidity and profitability problems) among SMEs in the mobile industry, the researcher contends that sound stock management could be one of the key strategies.



Problems that have resulted from poor stock management could have been prevented by the efficient control and monitoring of stock. Priority should be given by decision-makers to acquire a better understanding of stock budgets, ordering processes, stocktaking, bulk buying, stock forecasting, use of warehousing facilities and barcoding, strategies that they can adopt and manage for better financial performance.

Since cash flow is a major problem in most SMEs in the mobile industry, the researcher recommends that mobile service providers, if possible, purchase stock from device manufacturers, use the just-in-time method as much as possible, as well as try to negotiate with suppliers to adopt the consignment stock approach. This could result in considerable stock and related cost reduction as well as better service offerings at lower prices for the customers. Moreover, several studies have shown how collaborations among mobile operators can play a significant role in cost reduction. For instance, Mpwanya and Van Heerden (2017) suggest that mobile operators could consolidate their strategic relationship in order to reduce high telecommunications costs. Sabat (2008) recommends that to minimise their Opex, mobile operators should consider engaging in network sharing agreements, whereas each network operator still keeps its license to deliver wireless voice and data services to its consumers.

5.7 Significance and contribution of the study

5.7.1 Significance of the study

Despite the uncertain situation of many developing nations' SME sectors, such as South Africa's, the vital role that SMEs play in sustaining economic growth in emerging economies should not be forgotten. Optimal stock management can have a substantial effect on the financial performance of small businesses. As previously stated, there appears to be little or no comprehensive data on the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, SA, particularly in comparison to the contribution that it has made in other industries, such as manufacturing in other African countries. The study therefore aims to significantly contribute to the extant literature on the effects of stock management and its influence on the financial performance of SMEs, specifically in the mobile industry.



The study's findings should be critical to the Department of Small Business Development, which provides financial and non-financial support services to foster the survival and blossoming of SMEs. The study's results provide valuable insight into the effect of stock management on the financial performance of SMEs and thus identify a vital way of improving profitability and liquidity in SMEs. These findings could be used to guide the department's future endeavours when contemplating initiatives to promote the survival rate of SMEs.

The study's results will help organisations, especially those that deal in a stock-intensive arena, to acquire sound stock management skills, or persuade them to invest in accounting experts with the required expertise to manage stock effectively.

The findings of this study may also be useful to researchers contemplating similar surveys in other areas, sectors and industries, as well as with larger companies. They might adopt the research methodology and questionnaire survey used in this study to delve deeper into the effect of stock management on financial performance in ways not covered in this study. Additionally, the study serves as a catalyst for other South African and African scholars to conduct similar studies in other locations that can help to better understand the effects of stock management on the financial performance of SMEs, possibly resulting in more effective interventions to increase their survival rates. Finally, educational institutions could integrate the study's findings into their curricula by providing short courses on sound stock management to encourage SMEs to adopt associated practices.

5.7.2 Contribution of the study

This study contributes to the body of knowledge regarding the effect of stock management on financial performance in numerous ways. It is the first to investigate the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa. It contributes to the literature by uniquely investigating the effect of stock management on financial performance in a critical but neglected business sector in Cape Town, SA.

In addition, this study provides unique insights into the kind of stock management that is suitable for SMEs. Most previous studies have been carried out in other geographical areas, but this study



presents unique empirical evidence in the South African context that can conduce to the improvement of profitability and liquidity among SMEs. The study also uniquely employs contingency theory to emphasise the importance of contingent circumstances to any understanding of the effect of stock management on financial performance.

5.8 Limitations of the study

While the conclusions of this research study are significant, the study has certain inevitable limitations:

- The results of this study represent the opinions of mobile industry decision-makers only in Cape Town, SA, and may not apply to other parts of the country
- ❖ The study was limited to the owners, managers, and accountants of SMEs in the mobile industry in Cape Town, South Africa. It is possible that they are not the only decision-makers in the industry who are knowledgeable regarding stock management
- ❖ The researcher was at times required to remain with the respondents to help them answer all of the questions. Moreover, a significant amount of time was lost during the first week of conducting the research as most of the forms were returned incomplete by the respondents. As a result, the researcher was compelled to return to the companies and contact respondents in order to assist them with filling out the questionnaires. This additional contact may or may not have influenced the results
- ❖ Despite the fact that the study used a self-administered, closed-ended questionnaire survey, there were certain flaws, such as the possibility of non-response bias and a low response rate because some SMEs did not engage in stock management. However, as mentioned in Chapter 3, numerous precautions were taken to mitigate the consequences of these limitations
- ❖ The data was not submitted for a normality check, and the inferential analysis used only significant variables.

The researcher believes that these limitations do not outweigh the contribution of the study to the body of knowledge on stock management and financial performance, especially in the geographical context of Cape Town, South Africa.



5.9 Suggestions for further research

To enhance the generalisability of the study's findings, it is suggested that further research on the effect of stock management on the financial performance of SMEs be conducted, taking into account the following considerations.

- ❖ Since this study employed a quantitative method, it might be complemented by qualitative research. An in-depth case study might be undertaken to gain a deeper understanding of the factors that hinder SMEs from adopting management accounting techniques, particularly stock management. Such a study might employ open-ended questions to enable a more thorough-going analysis of the topic under study
- ❖ Further research could use factor analysis, Chi-Square tests, and time-series analyses to investigate the effect of stock management on the financial performance of SMEs, to obtain a more detailed statistical analysis of the contributions made by independent variables to dependent variables in cause and effect relationships
- ❖ As previously conceded, owners, managers and accountants were considered to be the decision-makers in SMEs. Others who should have been included may have been overlooked, a factor that might be remedied by future studies
- ❖ This research study focused on the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town; future research might focus on SMEs in other Metropoles or even large companies operating in the mobile industry
- ❖ The study's findings were drawn from a sample of 50 SMEs. In order to enhance the generalisability of the findings, future research might choose to employ a larger sample size.

5.10 Conclusion

The mobile industry in South Africa is one of the most progressive and advanced industries on the African continent, contributing significantly to economic growth, job creation, and poverty



reduction. Despite this contribution, firms operating in the industry, particularly SMEs, struggle to survive because of the high cost of telecommunication products. High telecommunication costs (i.e., of their stock such as cell phones, starter packs, data and routers), as well as their ever-growing Opex such as high stock-related costs, are perceived to be the major problem contributing to stagnant financial performance among SMEs in the mobile industry.

The main objective of the study was "to investigate the effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa". To address the objectives of the study, a questionnaire survey was conducted to collect quantitative data, which was then analysed using descriptive and inferential statistics through SPSS and Microsoft Excel power pivot.

According to the findings, the vast majority of respondents (90%) agreed that a company's stock turnover has a positive effect on its profitability. A further substantial percentage of respondents (70%) agreed that the company's stock turnover has also a positive effect on the cash position (liquidity) of the business. In a nutshell, the findings of this study revealed that the majority of SMEs in the mobile industry decision-makers agreed that sound stock management has a positive effect on the financial performance of SMEs in the mobile industry of Cape Town, South Africa. The implication is that careful, efficient and effective stock management could be one of the keys to reducing high costs for better financial performance and sustainability.



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APPENDIX A: CONSENT TO PARTICIPATE IN THIS RESEARCH STUDY

Dear Respondent,

You are invited to participate in a research study entitled: The effect of stock management on financial performance of SMEs in the mobile industry of Cape Town, South Africa, in fulfilment of the requirements for the degree of Master of Management Accounting in the Faculty of Business and Management Sciences at the Cape Peninsula University of Technology. My name is Marthar Bganya and my student number 212180479.

The aim of the study is to investigate the effect of stock management on the financial performance of SMEs in the mobile industry of Cape Town, South Africa. By investigating the effect of stock management on the financial performance of SMEs, this research could inform owners on the benefits stock management as a solution that would help them improve performance, better manage and grow their business. By responding to this questionnaire, you will already be contributing towards a positive intervention in the field of entrepreneurship, stock management for SMEs across South Africa and business management.

The information obtained from Questionnaire will be strictly for academic purposes and, please be assured that all of the information provided will be treated with respect, honesty and strictly confidential. In addition, participation in this study is voluntary and you have the right to opt out at any time if you wish to do so.



APPENDIX B: QUESTIONNAIRE

SECTION A: GENERAL INFORMATION

1. How long has your business been operating	? (Please insert an X in the appropriate box).
0-5 years [] $11-15 years$	[] More than 20 years[]
6 - 10 years [] $16 - 20 years []$	[]
2. How many employees does your business h	ave? (Please insert an X in the appropriate box).
0 – 5 employees []	21 – 50 employees []
6 – 20 employees []	51 – 250 employees []
3. What is your position within the business?	(Please insert an X in the appropriate box).
Owner []	Manager [] Other []
Owner and manager []	Accountant[]
If other, please specify here:	
4. How long have you been in this position? (A	Please insert an X in the appropriate box).
0-5 years [] $11-15 years$	[] More than 20 years []
6 - 10 years [] $16 - 20 years$	
5. What is highest qualification? (<i>Please inser</i>	t an X in the appropriate box).
Lower than grade 12 []	National diploma []
Grade 12 []	Bachelor's degree []
National higher certificate []	Other []

SECTION B: TECHNIQUES USED IN FORECASTING STOCK PURCHASES



fored	Kindly rate the usage of the following techniques by your business to east stock purchases manage the stated risks. (Please insert an X in the copriate box for each technique. Strongly disagree = 1, Disagree= 2, tral= 3, Agree= 4, Strongly disagree = 5)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
6a.	The firm prepares stock budgets before purchasing stock.	1	2	3	4	5
6b.	The firm relies on common sense to determine the quantity of stock to be purchased.	1	2	3	4	5
6c.	The business calculates the order quantity that minimizes the total holding cost and ordering stock (Economic order quantity).	1	2	3	4	5
6d.	The business receives stock from suppliers as and when it is required rather than carrying the large volumes of stock at once (Just in time).	1	2	3	4	5
6e.	The business receives stock from the suppliers prior to payment; the suppliers still own the stock and the payments will be made once the stock has been sold (Consignment stock).	1	2	3	4	5
6f.	Other: (please specify below)					

SECTION C: MEASURES OF CONTROLLING AND MONITORING STOCK



7. Kindly rate the usage of the following measures by your business to control and monitor stock. (Please insert an X in the appropriate box for each measure. Strongly disagree = 1, Disagree= 2, Neutral= 3, Agree= 4,						Agree
Stro	ngly disagree = 5)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
7a.	Stock Control is performed manually.	1	2	3	4	5
7b.	Stock Control is performed using computer system.	1	2	3	4	5
7c.	The company has dedicated staff to manage the warehouse.	1	2	3	4	5
7d.	There are clear procedures followed by the staff for receiving and issuing stock from the warehouse.	1	2	3	4	5
7e.	Movement of stock is verified and authorized by the management.	1	2	3	4	5
7f.	Every movement of stock is recorded on the stock cards.	1	2	3	4	5
7g	Stock records are maintained based on periodic physical records.	1	2	3	4	5
7h.	Stock records are maintained based on perpetual system.	1	2	3	4	5
7i.	Other: (please specify below)					

*Please respond to the following question by inserting an "X" in the appropriate box

δ.	Does your company cond	uct stocktaking?		
	Yes []	No []		
9.	If yes, in question 8, how	often does your comp	any conduct stocktakin	ıg?
	Daily []	Weekly []	Monthly []	Biannually []
	Annually []	other [], please	specify	



<u>SECTION D: FACTORS HINDERING THE EFFECTIVENESS OF STOCK</u> <u>MANAGEMENT</u>

10	0. Kindly rate the following factors, if they hinder the effectiveness of stock management in your company. (Please insert an X in the appropriate box for each measure. Strongly disagree = 1, Disagree= 2, Neutral= 3, Agree= 4, Strongly disagree = 5)	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
10a.	Inadequate funds	1	2	3	4	5
10b.	Inexperienced staff	1	2	3	4	5
10c.	Lack of skills and knowledge by the employees	1	2	3	4	5
10d.	Poor communication	1	2	3	4	5
10e.	Poor store records	1	2	3	4	5
10f.	Lack of technology	1	2	3	4	5
10g.	Other: (please specify below)					

SECTION E: EFFECTS OF STOCK TURNOVER ON LIQUIDITY AND PROFITABILITY

*Please respond to the fol	llowing question by inserting an "	X" in the appropriate box	
11. How can you descri	ribe the rate at which your compan	y's stock is sold (stock turnover	r)?
Low []	Medium []	High []	
	123		



12. How can you descri	be your company's cash position (liquidity)?
Good [] 13. How can you describe y Obtaining Loses []	Moderate []	Bad []
13. How can you descri	be your company's returns?	
Obtaining Loses [] Breakeven []	Obtaining Profits []

14. To what extent do you agree with the following statements on the effects of stock turnover on business financial performance? (Please insert an X in the appropriate box for each measure. Strongly disagree = 1, Disagree= 2, Neutral= 3, Agree= 4, Strongly disagree = 5)			Disagree	Neutral	Agree	Strongly Agree
14a.	The company stock turnover has a positive effect on the cash position	1	2	3	4	5
	(liquidity) of the business.					
14b.	The company stock turnover has a positive effect on the profitability	1	2	3	4	5
	of the business.					

Thank you very much for your precious time and participation. If you would like feedback on the findings of this study, please e-mail, Marthar at the following e-mail address: 212180479@mycput.ac.za.



APPENDIX C: ETHICAL CLEARANCE



P.O. Box 1906 | Bellville 7535 Symphony Road Bellville 7535 South Africa Tel: +27 21 4603291

Email: fbmsethics@cput.ac.za

Office of the Chairperson Research Ethics Committee **FACULTY: BUSINESS AND MANAGEMENT SCIENCES**

The Faculty's Research Ethics Committee (FREC) on 4 May 2021, ethics APPROVAL was granted to Marthar Bganya (212180479) for a research activity for Master of Management Accounting at Cape Peninsula University of Technology.

Title of dissertation / thesis / project:	The effect of stock management on financial performance of SMEs in the mobile industry of Cape Town, South Africa
	Lead Supervisor (s): Prof L Obokoh / Dr O Chakabva

Decision: APPROVED

m h.	12 May 2021
Signed: Chairperson: Research Ethics Committee	Date

The proposed research may now commence with the provisions that:

- The researcher(s) will ensure that the research project adheres to the values and principles expressed in the CPUT Policy on Research Ethics.
- Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study requires that the researcher stops the study and immediately informs the chairperson of the relevant Faculty Ethics Committee.
- 3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
- 4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards to the protection of participants' privacy and the confidentiality of the data, should be reported to the Committee in writing accompanied by a progress report.
- 5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study. Adherence to the following South African legislation is important, notably compliance with the Bill of Rights as provided for in the Constitution of the Republic of South Africa, 1996 (the Constitution) and where applicable: Protection of Personal Information Act, no 4 of 2013; Children's act no 38 of 2005 and the National Health Act, no 61 of 2003 and/or other legislations that is relevant.
- 6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
- 7. No field work activities may continue after two (2) years for Masters and Doctorate research project from the date of issue of the Ethics Certificate. Submission of a completed research ethics progress report (REC 6) will constitute an application for renewal of Ethics Research Committee approval.

Clearance Certificate No | 2021 FBMSREC 027



APPENDIX D: CRONBACH ALPHA TESTING

Relia	ability Statistic	s
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.949	.952	22

	Q6,a	Q6.b	Q6.c	Q6.d	Q6.e	Q6.f	Q7.a	Q7.b	Q7.c	Q7.d	Q7.e	Q7.f	Q7.g	Q7.h	Q10.a	Q10.b
Q6.a	1.000	.943	.943	943	.943	.943	.943	.943	.943	.943	1.000	.943	943	.943	.943	.943
Q6.b	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
Q6.c	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
Q6.d	943	-1.000	-1.000	1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	943	-1.000	1.000	-1.000	-1.000	-1.000
Q6.e	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
Q6.f	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
Q7.a	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
Q7.b	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
Q7.c	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
Q7.d	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
Q7.e	1.000	.943	.943	943	.943	.943	.943	.943	.943	.943	1.000	.943	943	.943	.943	.943
Q7.f	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
Q7.g	943	-1.000	-1.000	1.000	-1.000	-1.000	-1.000	-1.000	-1.000	-1.000	943	-1.000	1.000	-1.000	-1.000	-1.000
Q7.h	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
Q10.a	.943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000
010 h	943	1.000	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	1.000	943	1 000	-1 000	1 000	1 000	1 000

Q6.f	Q7.a	Q7.b	Q7.c	Q7.d	Q7.e	Q7.f	Q7.g	Q7.h	Q10.a	Q10.b	Q10.c	Q10.d	Q10.e	Q10.f	Q14.a	Q14.b
.943	.943	.943	.943	.943	1.000	.943	943	.943	.943	.943	.943	.943	943	.943	.490	.943
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	-1.000	-1.000	-1.000	-1.000	943	-1.000	1.000	-1.000	-1.000	-1.000	-1.000	-1.000	1.000	-1.000	612	-1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
.943	.943	.943	.943	.943	1.000	.943	943	.943	.943	.943	.943	.943	943	.943	.490	.943
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	-1.000	-1.000	-1.000	-1.000	943	-1.000	1.000	-1.000	-1.000	-1.000	-1.000	-1.000	1.000	-1.000	612	-1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
1.000	-1.000	-1.000	-1.000	-1.000	943	-1.000	1.000	-1.000	-1.000	-1.000	-1.000	-1.000	1.000	-1.000	612	-1.000
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000
.612	.612	.612	.612	.612	.490	.612	612	.612	.612	.612	.612	.612	612	.612	1.000	.612
1.000	1.000	1.000	1.000	1.000	.943	1.000	-1.000	1.000	1.000	1.000	1.000	1.000	-1.000	1.000	.612	1.000



Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q6.a	86.40	371.300	.941		.943
Q6.b	86.40	350.300	.998		.941
Q6.c	86.20	367.200	.998		.942
Q6.d	88.00	477.000	998		.967
Q6.e	86.20	367.200	.998		.942
Q6.f	86.00	384.500	.998		.944
Q7.a	86.20	367.200	.998		.942
Q7.b	86.20	367.200	.998		.942
Q7.c	86.20	367.200	.998		.942
Q7.d	86.00	384.500	.998		.944
Q7.e	86.40	371.300	.941		.943
Q7.f	86.20	367.200	.998		.942
Q7.g	88.00	477.000	998		.967
Q7.h	86.20	367.200	.998		.942
Q10.a	86.20	367.200	.998		.942
Q10.b	86.20	367.200	.998		.942
Q10.c	86.20	367.200	.998		.942
Q10.d	86.20	367.200	.998		.942
Q10.e	88.00	477.000	998		.967
Q10.f	86.20	367.200	.998		.942
Q14.a	86.80	379.200	.600		.948
Q14.b	86.20	367.200	.998		.942

Summary Item Statistics										
	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items			
Inter-Item Correlations	.474	-1.000	1.000	2.000	-1.000	.701	22			



Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q6.a	86.40	371.300	.941	*	.943
Q6.b	86.40	350.300	.998		.941
Q6.c	86.20	367.200	.998		.942
Q6.d	88.00	477.000	998		.967
Q6.e	86.20	367.200	.998	,	.942
Q6.f	86.00	384.500	.998		.944
Q7.a	86.20	367.200	.998		.942
Q7.b	86.20	367.200	.998		.942
Q7.c	86.20	367.200	.998		.942
Q7.d	86.00	384.500	.998		.944
Q7.e	86.40	371.300	.941		.943
Q7.f	86.20	367.200	.998		.942
Q7.g	88.00	477.000	998		.967
Q7.h	86.20	367.200	.998		.942
Q10.a	86.20	367.200	.998		.942
Q10.b	86.20	367.200	.998		.942
Q10.c	86.20	367.200	.998		.942
Q10.d	86.20	367.200	.998		.942
Q10.e	88.00	477.000	998	,	.967
Q10.f	86.20	367.200	.998		.942
Q14.a	86.80	379.200	.600		.948
Q14.b	86.20	367.200	.998		.942



APPENDIX E: EDITOR'S LETTER

Epsilon Editing

17 Kew Gardens 21 Park Drive Gqeberha 6001

dgncornwell@gmail.com

Tel. 084-9897977

10 February 2022

TO WHOM IT MAY CONCERN

This serves to confirm that the Master's thesis by Marthar Bganya (CPUT student number 212180479), "The effect of stock management on the financial performance of SMEs in the mobile industry in Cape Town, South Africa," has been proofread and edited to my satisfaction for English idiom and correctness of expression. The referencing has been checked against the CPUT Harvard standard.

Professor D G N Cornwell (PhD, Rhodes University)

Comwell