The effects of capital structure on the operational efficiency of Small and Medium-Sized Manufacturing Enterprises (SMSME) in Pietermaritzburg, South Africa

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DEDICATION

Not a day goes by that you are not missed, I thought it might get easier as time went by, but it doesn't. Your life was a blessing, your memory a treasure, you are loved beyond measure. I dedicate this thesis to my guardian angel, my late mother, **Qhamukile Bonisiwe Dlamini,** may your precious soul continue to rest in peace. I also like to dedicate this thesis to my father, my superhero, **Robert Zenzele Nxumalo,** I'm eternally grateful to Almighty God for blessing me with such an amazing Father. You played a significant role as a father which cannot be adequately expressed in words. Words will never be able to express my thanks to you.

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ABSTRACT

The study examined the effects of capital structure on the operational efficiency of SMSME (SMSME) in Pietermaritzburg, Kwa-Zulu Natal, South Africa (SA). The objective of the research work was to evaluate the difficulties that SMSME in PMB face in accessing financial aid from financial institutions. Furthermore, to examine the factors that influence the operational efficiency of SMSME in PMB. Finally, to determine the impacts of capital structure on the operational efficiency of SMSME in PMB.

The study was cross-sectional and utilized a quantitative research method. The primary data gathering instrument was a survey questionnaire. The researcher used an adjusted sampling procedure that yielded a sample size of 107, but the researcher decided to employ the whole target population of 148, which resulted in 141 responses. The information was gathered by survey questionnaires and analyzed with the Statistical Package for the Social Sciences (SPSS).

According to the findings of this research work, most manufacturing SMEs could not access funding because of the information gap. Some of the most notable findings suggested that SMEs lack the requirements to access the loan. Internal sources of funding are preferred by most SMEs since they are easier to get and less expensive. The findings show that the capital structure of the organization is influenced by the business size, its age, its profitability, and its assets. The longer a business has been around and the larger it is, the more it indicates that it can withstand difficult economic times. Instead of making decisions on capital structure based on broad overviews, the study advised that businesses should examine closely and compare the cost of capital to the value that may be gained from it when deciding on the capital structure composition. This will assist managers in ensuring a profit at the end of the day.

This finding contradicts the findings of most research done in developed countries, which suggest that capital structure and the performance of a firm (operational efficiency)

possess a positive relationship. The findings of this study reveal that, even though some government funding and support groups have been there for a long time, small firms are still uninformed of them, and those that are aware are underutilizing them. The findings of the research work supported the pecking order theory which suggests that a firm should utilize internal sources to keep away from asymmetric information costs. However, if the sources internally are not sufficient to finance the operations of the business, they can look at the external sources to finance.

Keywords:

Capital structure, Operational efficiency, Access to financial assistant and SMSME (SMEs)

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LIST OF ABBREVIATIONS

DR   : Debt Ratio

DUT   : Durban University of Technology

GDP   : Gross Domestic product

GEM   : Global Entrepreneurship Monitor

GMM   : Generalized method of Moments

KZN   : Kwa-Zulu Natal

NIM   : Net interest Margin

PMB   : Pietermaritzburg

RAROA   : Risk-Adjusted Return on Assets

RAROE   : Risk-Adjusted Return on Equity

RCOE   : Return on Capital Employed

ROA   : Return on Assets

SMEs   : Small and Medium-sized Enterprises

SPSS   : Statistical Package of Social Science

SSA   : Sub-Sahara Africa

SMSME   : Small and medium-sized manufacturing enterprises

CHAPTER ONE
INTRODUCTION

1.1 Background to the study

The Small and medium-sized enterprises (SMEs) sector is a major donor to technical change and fresh product development (Fiseha and Oyelana, 2017: 281). SMEs are of great importance in the world because they play a vital role in addressing the obstruction of inequality, job creation, and poverty in most of the disadvantaged areas (Fiseha et al., 2017: 281). The SMEs sector is a vital aspect of the South African economy. (Fatoki, 2018:1). The sector employs roughly 91 percent of formal businesses in SA and accounts for 51% to 57% of the GDP of South Africa (Fatoki, 2018:1). Furthermore, SMEs employ approximately 60% of the workforce in South Africa. SMEs are the major contributors to employment, low-skilled workers, and youth upliftment (Fiseha *et al*., 2017: 281). According to Singh (2017:3), SMEs contribute about 47% of the working industry in South Africa and remit approximately 6% in corporate taxes. SMEs are involved in carrying out diverse economic activities and are also the drivers of development and growth in global developed and developing economies (Singh, 2017:3).

Operational efficiency is the major achievement for any business and any manager in diverse sectors (Kinyanzui, Achoki and Kiriri 2018: 834). To achieve operational efficiency, the firm may adopt different strategies which include technology, managerial behaviour change, and promoting operational optimisation (Kinyanzui *et al.* 2018: 834). Managerial behavior change is defined as a change in a manager's behavior in relation to cost savings and reductions. In other words, it means that managers will look at the different ways to reduce costs in a business. More so, operational optimisation refers to a firm development of processes and systems in a business that can reduce costs (Kinyanzui *et al.* 2018: 834). For most types of operations, five operational performance metrics are traditionally expected: speed, quality, flexibility, reliability, and costs. (Mafini and Loury-Okoumba 2018:3).

This study is conducted because there are minimal studies on small businesses that concentrated on the manufacturing sector in South Africa which is a limiting factor for any intending entrepreneur. This sector cannot be neglected because of its impressive economic contribution to the economy (Saraani and Shahadan, 2013: 23). About 95% of global enterprises are SMEs and contribute to about 60% of employment in the private sector (Quartey, Turkson, Abor and Iddrisu, 2017: 19). SMEs create wealth for the country by increasing investment, trade, and demand for goods (Muriithi, 2017: 39). The absence of SMEs in South Africa will make the government experience financial and development constraints. However, this condition will worsen the living conditions of low-income individuals serviced by the sector (Muriithi, 2017: 39). The future of SMEs is defined by good capitalisation (Nawi, 2015: 1). Because modern corporate finance theory was established without small businesses in mind, it is critical to do an empirical study on SMEs (Nawi, 2015: 1).

1.2 Research problem

SMEs rely on adequate capitalization and financing. According to Bushe (2019:1), small and medium-sized businesses' failure rate is on the increase in South Africa compared to small, medium, and macro enterprises (SMMEs). According to researchers, 40% of newly founded small firms experienced failure in the first year of business activities, 60% fail in the second year, and approximately 90% fail during the 1st ten years of business activities (Bushe, 2019:1). These findings of poor survival rates are compiled by the report of 2012 Global Entrepreneurship Monitor (GEM), which also mentioned that the survival rate for new local businesses in SA is low by global standards (Bushe, 2019:1). The high rate of failure and poor performance of SMEs have generated fear on their strength to generate long-term jobs and alleviate poverty in South Africa (Fatoki, 2018:2). Another challenge faced by small businesses is access to finance in South Africa. The financial institutions have created more complex credit processing and have become more careful when they

are issuing loans, thereby creating difficulties for owners of small business to get a loan (Sitharam and Hoque, 2016: 277).

Eniola and Entebang (2015: 2) state that the rate of failure of SMEs is about 85 out of 100 in Africa and this results from the limitation to sources of financing entrepreneurial skills. The insufficiency of capital funds can lead SMEs to rely on loans from the bank, overdrafts, and suppliers' credit during the establishment of the business (Fatoki and Odeyemi, 2010: 129). Although SMEs depend on debt finance, limitation to finance is common among new SMEs more particularly in developing countries (Fatoki and Odeyemi, 2010: 129). Only 2% of newly established SMEs in South Africa can access bank loans and approximately 75% of requests for bank credit by newly established SME owners get rejected (Fatoki and Odeyemi, 2010:129). Recent research in developing countries discovered that SMEs are confronted with more financial challenges than large organizations (Kuntchev, Ramalho, Rodriguez-Meza, and Yang, 2012: 2). Academics propose that the financial intelligibility of SMEs could be increased by advancing the understanding of their financial applications (Kuntchev *et al.,* 2012: 2).

Some staff of certain departments in developing countries choose to operate independently, which leads to different parts competing rather than cooperating. (Madanhire and Mbohwa 2016: 225). This problem has put a strain on the operational efficiency of most of the businesses in the manufacturing sector (Madanhire and Mbohwa, 2016: 225). Manufacturing SMEs' performance has been poor over the years leading to operational inefficiencies (Bulak, Turkyilmaz, Satir, Shoaib, and Shahbaz, 2016:2005). Due to lack of capital, organizational and managerial challenges, manufacturing SMEs are finding it difficult to develop a plan that will help them gain a competitive edge (Bulak, 2016: 2005).

Consequently, this research seeks to analyze the factors that affect manufacturing small and medium-sized enterprises (SMEs') capital structure on operational efficiency. The reason for choosing these firms is due to the surge in the number of SMEs every year

with limited resources or finance from the government. This research is imperative because preference must be given to firms with strong potential for supporting the growth of the economy of the country. The main motivation to study SMSMEs is because of their outstanding economic contribution to the country and the growth they bring to the economy. The development and expansion of SMEs are dependent on adequate finance and capitalization.

1.3 Research questions

i. What difficulties do SMSME in Pietermaritzburg (PMB) face in accessing financial support from financial institutions?

ii. What are the factors that influence the operational efficiency of SMSME in Pietermaritzburg PMB?

iii. What are the effects of capital structure on the operational efficiency of SMSME in Pietermaritzburg PMB?

1.4 Aims and objectives of the study

The thesis aims to investigate the effects of capital structure on the operational efficiency of SMSME in Pietermaritzburg (PMB).

In a bid to achieve the aim of the research work, the underlisted objectives will be dealt with.

i. To evaluate the difficulties that SMSME in Pietermaritzburg (PMB) face in accessing financial aid from financial institutions.

ii. To examine the factors that influence the operational efficiency of SMSME in Pietermaritzburg PMB.

iii. To determine the effects of capital structure on the operational efficiency of SMSME in Pietermaritzburg PMB.

1.5 Rationale for the study

Though there exists various studies such as (Hashemi 2013, koksal and Orman, 2015, Ramjee and Gwatidzo, 2012, Ahmad Mohammad Obeid Gharaibeh, 2015, Osano and Languitone 2016, Mazanal 2012, Muthini 2015, Fatoki 2014, Ngibe, Lukhanya and Garbharran 2019, Murrithi 2017, Mabanda and Makoni, 2019) that investigated the capital structure and access to finance, the motive of these studies was on large enterprises and not on small businesses and they focused on other sectors in different provinces. Therefore, this study will focus on the small growing sector known as the manufacturing sector in KwaZulu-Natal. The manufacturing sector is one of the sectors that have the greatest potential for growth (Ramaphosa, 2020:19). There is a gap in the studies about the capital structure amongst the manufacturing SMEs in South Africa, Kwa-Zulu Natal (Pietermaritzburg). The primary cause of weak performance in SMEs is debt finance failure (Fatoki 2017:151-158). The previous studies focused on the influence of humans and social on the performance of SMEs in South Africa. It is important to investigate the influence that contributes to a result of the weak performance of SMEs (Fatoki 2017: 193-204).

It is discovered that some studies have been supervised on SMEs and capital structure within South Africa. But to the best of the researcher's knowledge, there is no existing study conducted on the effects of capital structure on the operational efficiency of manufacturing SMEs in KwaZulu-Natal. There has been no empirical investigation on the effects of capital structure on the operational efficiency of manufacturing SMEs in the KwaZulu-Natal (PMB).

This study focuses on the difficulties faced by SMEs in accessing financial debts and information they need as small business owners/managers to be able to get financial

assistance from the banks. This study is unique as no studies have focused on that part in South Africa. Therefore, the outcome of the study is expected to teach more about the effects of capital structure on the operational efficiency of small medium-sized manufacturing enterprises to enlighten owners/managers on the importance thereof. The outcome of the study will benefit both the unemployed youth and small businesses in terms of how to manage their finances and add value to the business.

1.6 Scope of the study

The thesis researches the effects of capital structure on the operational efficiency of SMSME in KwaZulu-Natal province. The motive of this thesis is to investigate the effects of capital structure on the operational efficiency of SMEs in KwaZulu-Natal province. Theoretically, it contributes to the use of Trade-off theory, Pecking order theory, and Agency theory within the context of SMEs in KwaZulu-Natal. The research work provides financial preferences for the managers/owners of SMEs. The scope of this thesis is limited to 148 registered SMEs in the manufacturing sector within the KwaZulu-Natal natal province (Pietermaritzburg).

1.7 Structure of the thesis

The study comprises five chapters as follows:

Chapter one outlines the introduction and background of the thesis. This chapter also reveals the statement of the problem and rationale of the research work. The manner of conducting the research work.

Chapter two contains the literature review. The chapter focuses on the conceptual reviews, theoretical reviews, and imperial reviews of the study. It is structured in line with the objectives of the study to evaluate the capital structure determinants amongst the SMEs'.

Chapter three discusses the method of the research of the research work. It provides the research design that is quantitative research methodology. It also reveals the research instruments, reliability, and validity, sampling method, measuring methods, population of the study, data collection techniques, and data analysis techniques.

Chapter four provides the findings made through the research. It shows how the data collected is tabulated, interpreted, and presented according to the literature.

Chapter five is the final chapter of the thesis. It concludes the study as well as provides recommendations to SMEs and raises recommendations for further study.

1.8 Chapter summary

The chapter covered the introduction of the study, background, as well as problem statement, which serves as the study's foundation. The aim, objectives, rationale, and scope were also reviewed in this chapter.

The next chapter centers on the literature review which are divided into the conceptual, theoretical, empirical, conceptual framework, and theoretical framework. The chapter presents a comprehensive overview of the available literature on the impact of capital structure on the operational efficiency of SMEs, as well as the implications of these findings.

2   CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The chapter reviews the literature on capital structure and the theoretical relationship between financial performance and capital structure. The chapter commences with definitions of the concepts of capital structure and SMEs which is followed by its theoretical and empirical reviews.

2.2 Conceptual Review

2.1.1   Small and medium-sized enterprises (SMEs)

The National Small Business Act 102 of 1996, as amended by section 1 of Act 26 of 2003, p1, defines a small business or enterprise as a distinct and separate business entity, comprising co-operative enterprises (and NGOs), controlled by more than one owner, and mainly engaged in any subsector or sector of the economy. A small enterprise is defined as anybody, whether incorporated or not, consisting mostly of individuals executing small business activities in any economic area and created to promote or represent small business, entirely or partially of such association and any of such organization. With reference to the table below, the National Small Business Act is the explanation of small businesses in different categories.

Table 2.1 General SMMEs definitions in the National Small Business Act

Definitions of SMMEs given in the National Small Business Act

Size of Enterprise	Quantity of Employees	Annual turnover	Gross assets, excluding fixed property
Medium	Fewer than 100 to 20, depending on industry	Less than R4 million to R50million, depending upon the industry	Less than R2 million to R18 million, depending on industry
Small	Fewer than 50	Less than R2 million to R25 million, depending on industry	Less than R2 million to R4,5 million, depending on industry
Very small	Fewer than 10 to 20, depending on industry	Less than R200 000 to R500 000, depending on industry	Less than R150 000 to R500 000, depending on industry
Micro	Fewer than 5	Less than R150 000	Less than R100 000

Source: Adapted from the National Small Business Act as cited by Sitharam and Hoque (2015).

2.1.2 Meaning of Capital Structure

The capital structure of the firm is the mix of equity and debt employed to support its growth and operations (Abata, Migiro, Akande, and Layton 2017:335). The primary goal of capital structure policies is to increase the value of a firm (Ghasemi and Ab Razak, 2016). The capital structure is made up of many financing sources. According to Wiagustini, Ramantha, Sedana, and Rahyuda (2017: 120) Failure to determine the capital structure's composition might put the firm in financial distress or even lead to bankruptcy. Managers that are intelligent in determining and implementing the proper debt-equity mix are frequently rewarded in the market, as the accurate mix of debt-equity lowers the cost of capital of a firm, improves financial profits, and the firm's competitive advantage (Abata 2017:335). Considering Modigliani and Miller's groundbreaking work (1958,1963), the relationship between capital structure, valuation of a firm, and efficiency has been discussed in financial management (Abata *et al.,* 2017:335).

The market debt value plus the market value of shareholders' equity equals the value of the enterprise (Köksal and Orman, 2015:256). A business should strive to maximize its worth, while also maximizing the interests of its owners. As a result, it should figure out what ratio best serves the interests of the shareholders (Köksal and Orman 2015:256). Any institution's capital structure should be carefully maintained to guarantee that the company stays in business and can fund its projects. As a result, how a firm combines equity and debt will determine its value for the market.

In a process of analyzing the importance of capital structure to financial performance, some academics also emphasize the significance of differentiating between short-term debt and long-term debt. In the study of capital structure (Kodongo, Mokoaleli-Mokoteli, and Maina 2015:2) argued that bank leverage is inversely proportional to operational

assets., nevertheless, long-term debt is directly proportional linked to operational assets and performance. Short-term debt may perform as a motive for managers to per sue value-maximizing decisions that may affect firm performance (Kodongo *et al.* 2015).

Debt could be either short-term repayable in less than one year or long-term repayable in more than one year (Yabs, 2015:4). While debt investors have less influence over the firm and have no say in how it is managed, they do get a predetermined rate of return, known as interest, that must be paid for the loan when it is due (Yabs, 2015:5). Regardless of the business's performance or profitability, the borrower is obligated to pay interest and return the principle when it is due under the terms of the loan (Öztekin 2018:305).

2.1.3 What is Operational Efficiency

One component of examining a firm's performance is efficiency measurement. Efficiency may be assessed in three ways: production maximization, cost minimization, and profit maximization (Kang'thembe, 2009:12). A firm is said to be technically efficient if it can get the most outputs out of the inputs it has or utilize the fewest inputs possible to get the most outputs out of the inputs it has. The goal of the manufacturers is to avoid waste.

2.1.4 Determinants of capital structure

The size of the organization

According to Ayuba, Bambale, Ibrahim, and Sulaiman (2019:58), Because of the phenomena of economies of scale, a company's size is critical to its success in today's economic environment. Size and appearance are the affirmation of determinants of a small business's capital structure. As the firms succeed, they need access to increased resources or capital, and generally have more sources to make use of to obtain capital (Siljander 2018: 20). Because small businesses have limited access to capital markets, they frequently rely on personal resources to fund their operations. (Siljander, 2018: 20). According to Abdelfattah (2020:18), People tend to utilize more debt in large

organizations, considering the theory of trade-off, there is a significant negative relationship between size and bankruptcy costs or a decreased risk of financial problems.

In the pecking order theory, size serves as a proxy for information asymmetry between the capital markets and the firm (Abdelfattah, 2020:18). As a result, the larger the organization, the more information is shared with personnel outside the organization (Abdelfattah, 2020:18). Modern corporations want to grow to get a competitive edge over their competitors by lowering manufacturing costs and expanding market share (Ayuba *et al.,* 2019:59). Larger companies may produce things at substantially lower prices than smaller companies (Ayuba *et al.,* 2019:59). The size of the firm indeed affects its value.

The profitability of the business

Profitability and debt appear to have a predictable connection. Profitability refers to the ability to generate excess internal cash. The potential to generate earnings of a company is determined by dividing operational income by total assets, which includes balance sheet assets sales, operating costs, and shareholder equity. (Ayuba *et al.,* 2019:60). However, profitable firms would require less debt financing to maintain operations (Sijander, 2018: 21). The traditional theory says they are three different predictions on the relationship between debt and profitability (Sijander, 2018: 21). This means no firm's certain determinant will affect the capital structure. Ayuba *et al.* (2019:59) and Sijander (2018:21) support that, trade-off theory implies that organizations with high-profit margins would have larger leverage ratios, whereas more prosperous firms should be more willing to take on debt. Given the pecking order theory, the higher the profitability of a firm, the less dependent it is on debt because self-funding is available (Abdelfatta, 2020:18). The profitability of a firm is measured by profitability using two measures. The ratio of earnings before interest and taxes to total assets is known as return on assets (ROA) and that is the first measure (Khémiri and Noubbigh, 2018:152). The ratio of earnings before interest and taxes to total equity is known as return on equity (ROE) and that is the second profitability measure.

Previous research demonstrates that management investment decisions might impact SMEs' profitability decisions, especially during periods of economic volatility, (Siljander 2018: 25). Several studies have been carried out on the performance of SMEs. The businesses' performance demonstrates the utility and efficiency of resource application and, as a result, adds to the research's economic progress.

The tangibility of the business

According to Siljander (2018:27), For decision-making, the asset structure of SMEs is important. Small firms depend on tangible assets as a guarantee, presuming more success to pay back creditors or as a security in case of bankruptcy. Small firms utilize their guarantee to attract long-term loans, which means they employ long-term debt with lower costs and interest rates than short-term debt (Sijander, 2018: 21). Two metrics characterize the asset structure: physical assets and collateral value. As a proxy for collateral value, the ratio of inventory plus gross plant and equipment to total assets is employed (Ramli, Latan, and Solovida 2019:149).

According to the trade-off hypothesis, tangibility and debt raising possess a positive link, with the more fixed assets to which an organization owns, the more collateral it has access to, signaling a greater appetite for debt raising (Abdelfattah, 2020:18). Due to low information asymmetry, the pecking order theory shows an adverse relation between debt and asset tangibility related to physical assets, decreasing the firm's cost of obtaining stock (Abdelfattah, 2020:18).

The Growth Opportunities

A firm's growth value prospect is almost certainly exclusively useful to that firm, or at least less valuable to other firms, therefore the consequences of financial hardship and bankruptcy will be higher for organizations with large development prospects (Yildirim, Masih, and Bacha, 2018:201). According to pecking order theory, if an organization is

developing, it should support its investments first with internal funds, which are the least expensive capital source, before turning to debt, which is the second least expensive funding source. (Abdelfattah, 2020:20). Growth is generally regarded as a significant predictor of capital structure since it is evaluated as a percentage change in total assets (Abdelfatta, 2020:20).

According to Siljander (2018: 27), growth may be divided into several categories, and this will be beneficial to the company. This is critical for a firm since the growth figures it reports are likely to reflect past decisions, making current decisions challenging. (Khémiri and Noubbigh, 2018:152). They are two types of growth: past growth and being opportunity growth. Growth is positively related to debt, as fast growth may exhaust internal funds quickly and the firm will be required to issue additional debt. A high-growth small organization may face dilution of ownership, which might limit their funding options (Ramli *et al.,* 2019:149).

If a business is growing, according to the pecking order principle, it first funds its investments with internal funds, which is the cheapest financing source, before moving on to debt, which is the second cheapest source of funding (Ramli *et al.,* 2019:149). Growth is often considered an important predictor of capital structure because it is quantified as a percentage change in total assets (Ramli *et al.,* 2019:149). Greater growth potential is a sign of strong business success, and it's simpler to get financing in a competitive market.

The impact of Tax

One of the factors employed in a handful of study studies is the tax rate, which is also known as tax savings or tax shield (Khémiri and Noubbigh, 2018:152). Taxes are computed by dividing tax provisions by earnings before taxes, or by multiplying interest expenditures by effective tax rates to determine tax shield/tax savings (Abdelfattah 2020:21). We anticipate that the higher the tax rate, the greater the hunger for debt financing; so, we feel the link is dependent on each country's tax rate. Taxation does

indeed have an important impact on economic growth. The designation of SMEs is prescriptive in terms of pushing the country's socioeconomic development forward. According to Tee, Boadi, and Opoku (2016:1), tax policies constrain small businesses from maintaining their growing profitability. This means policymakers and regulators and the government must examine the factors that affect the competitiveness of small enterprises. According to previous surveys, a majority of respondents identify the negative effect of present tax policies on small firms' growth and propose that the policies be improved (Tee *et al.,* 2016).

Non-debt tax shields

Operational income, revenue or earnings before interest and tax are applied in the computation to standardize the non-debt tax shield (Ramli *et al.,* 2019:150). It is one of the aspects that has been evaluated as a component of capital structure in various publications, that firms may use depreciation to pay taxes rather than the tax shelter provided by debt raising (Abdelfattah, 2020:21). Depreciation divided by total assets is how the non-debt tax shield is computed (Abdelfattah, 2020:21). According to Kagan (2019:1), A tax shield is decrease in taxable income accomplished by people or businesses via permitted deductions such as medical expenditures, mortgage interest, depreciation and amortization. Hashemi (2013: 23) states that higher income is the result of a more profitable firm, and therefore a greater tax shield, in the due course will lead to the production of surplus internal funds, which the firm could use as financing sources. Both these factors imply, and secondly, that spread use of capital would theoretically propose a lower bankruptcy risk (Hashemi, 2013:23). According to the trade-off theory, non-debt tax shields and leverage have an adverse relationship (Khémiri and Noubbigh, 2018:152).

Volatility

If a firm's nature necessitates it, it will rely less on debt if it is experiencing operational difficulties that are putting a strain on its earnings and will instead use its funds rather than debt to avoid additional damage to its profits (Abdelfattah, 2020:20). A technique for determining risk and volatility is the standard deviation of return on assets, which suggests the volatility of a firm's profitability (Abdelfattah, 2020:20). Trade-Off Theory suggests these businesses must minimize their debt levels to reduce their risk of bankruptcy (Yildirim *et al.,* 2018:202). The hypothesis of the pecking order, on the other hand, claims that more risk leads to more leverage, with the argument being that higher earnings volatility would induce shareholders to demand a higher return, making equities more costly to issue (Yildirim *et al.,* 2018:202).

Operational risk is the risk that small businesses face as a business (Hashemi, 2013:26) Furthermore, one of the most significant concerns facing small businesses is a higher level of operational risk. Small businesses are forced to accept the lower profits margins or charge their customer more when the prices rise quickly (Hashemi, 2013: 27).

2.1.5 Challenges facing SMEs in the manufacturing sector.

The creation of employment in SMSME can boost economic growth and development (Mageto, Prinsloo, and Luke 2018: 1). The manufacturing share of outputs has decreased from 0.61% in 1990 to 0.5% to date in South Africa (Ngibe and Lekhanya 2019: 2). The challenges faced by manufacturing SMEs show the need for improvement in the domestic economy and manufacturing output. Manufacturing enterprises are in crisis with many considerations such as economic and social factors, financial access, and management skills due to deliberate lack of creativity and purposeful transformation to adapt to the ever-changing business world (Ngibe and Lekhanya, 2019:3). The majority of small businesses face challenges related to organisational and research and development outsourcing (Ngibe and Lekhanya, 2019: 3).

The reason why small businesses face so many challenges is that they have a weak relationship with other larger organizations making it difficult for them to gain information for the sake of long-term sustainability (Ngibe and Lekhanya 2019: 2). These challenges are endless and bottleneck the SMEs' operations in the manufacturing sector and they face these challenges daily (Ngibe and Lekhanya, 2019: 2). The absence of sustainability in manufacturing small businesses is also an attribute of manufacturing SMEs which often lack other aspects like human resources, knowledge skills, and recognition to develop the necessary organizational improvements for long-term success (Ngibe and Lukhanya, 2019: 2). Between 2001 and 2010, South African SMEs experienced weak management skills because of a lack of adequate education and training, these challenges were noted by the global entrepreneurship monitor (GEM) (Ngibe and Lukhanya, 2019: 2).

According to empirical studies, manufacturing SMEs in South Africa fail at a rate of 53% to 75% in the first two years of activities, making it one of the highest failure rates among emerging countries.

Asymmetric Information

Insiders know more about the firm than outsiders, according to asymmetric information theory; it is the gap between the information that insiders and outsiders have in the market concerning the organization that leads to internal managers possessing an edge over outsiders when it comes to making predictions about the firm (Song, Yang, and Yu, 2020: 2). The major challenge in small business funding is information asymmetry. If there is appropriate information about small businesses in the market, small businesses will not have a problem with working capital and the problem of obtaining it from a financial establishment (Song *et al.,* 2020:2). Therefore, real information is scarce if ever possible, especially for start-ups firms, which usually cause high risks in the operation of SMEs (Nawi, 2015: 18).

Small businesses face difficult financing constraints compared to large firms. Asymmetric information, first documented by Modigliani and Miller (1958), plays an essential role in modern economic and corporate finance. If adequate information on SMEs is available on the market, SMEs will not have difficulty getting working capital from a financial institution. Therefore, Ma *et al.,* (2019) genuine information is scarce if ever possible, especially for starts-ups firms, that usually cause high risks in the operation of SMEs. Small businesses face difficult financing constraints compared to large firms. Asymmetric information originated from Modigliani and Miller (1958) plays an important role in modern economic and corporate finance.

2.1.6 Access to financial assistance on SMEs

The subject of capitalizing on SMEs has been a source of contention among stakeholders, scholars, and policymakers throughout the world. The drawback is recognized because of the essential role those small firms continue to execute in all the sectors and the creation of employment around the world (Sibanda, Hove-Sibanda, and Shava, 2018: 1). For small businesses to subsidize their everyday production activities and achieve good performance, a well financial condition is a critical, more significant position net working capital (current assets minus current liabilities) position (Sibanda *et al.*, 2018:4). Nevertheless, SME need finance to start production activities and for the objectives of starting a business, investing, and doing research (Sibanda et al. 2018: 4). On the other hand, Sitharamand Hoque (2016: 278) said most small firms depend on internal capital, such as savings from the owner of the firms, friends, and family, which is not reliable. However, to approach external capitalization is very important to reduce the effect on the cash flow of SMEs.

The need for financing in SMEs might be for four different reasons. The first is for establishment capital to help finance the newly established business. Secondly, to finance the already established business, for example, to finance development through the purchase of assets (Eniola and Entebang, 2015: 3). Thirdly, when a risky form of capital

is required to finance innovation. Risk capital is a term used to describe this type of financing, and it carries a high level of risk in exchange for a high gain. Finally, to alter the firm's current financial structure by altering the long-term-to-short-term debt ratio or equity-to-debt ratio. Financing can be categorized into many sources (Eniola and Entebang, 2015: 3).

2.1.7   Internal and external sources of financing.

Internal financing means the firm gets capital from its operations, mostly on retained profits and depreciation, these are the very significant part of the firm for it to survive and develop. Internal capitalization is a significant source to get capital (Eniola *et al.,* 2015:3). Successful and profitable SMEs employ an external source of financings, such as financial banks, private investors, venture capital, and crowdsourcing, and then outperform less successful firms. (Eniola *et al.,* 2015:3). External sources are the key to rapid growth for a firm. Formal sources financing small businesses are commercial banks, Merchant banks, and development banks.

Debt is money borrowed from one person to another (Chen, 2020). When total liabilities surpass current assets, a person declares bankruptcy. The sources of SMEs in the private sector are commercial banks and trade creditors (Fatoki, 2014: 751). The financial sources for new SMEs are commercial banks. When shareholders offer capital in the form of loans to owner-managers, this is referred to as debt financing. The investors in return the firm pay the interest for the application of credit of the capital. SMEs prefer to use external sources like commercial banks (Eniola, 2015:5).

Other kinds of funding are divided into two types: length-term finance and relatively short-term finance bank loans, leasing, and hire purchase (Nawi, 2015:9). Long-term financing is a type of financing which provides for more than a year. Long-term capital is for businesses that are in shortage of capital, and it is for assets, projects, and short-term finances for operations of the business (Eniola, 2015: 10). Long-term finances may also

involve a thirty-year mortgage, or a ten-year treasury note if the firm issues stock to raise funds for future investment. (Fatoki, 2015: 759). Equity also means long-term finances.

A credit facility which has maturity of 1 year or less is referred to as short-term finance. It is a credit term arrangement granted to a mortgage banker to fund a stock of loans which are resold to investors. Fatoki (2015: 753) indicates that small businesses are frequently compelled to pursue short-term and medium-term forms of funding at high prices, such as overdrafts, trade creditors, leases, credit cards, and bank loans. SMEs are increasingly shifting away from short-term financing, yet they still rely on overdrafts and short-term bank loans to fund the operations.

2.1.8   Conceptual framework

The numerous capital structure categories are depicted in the diagram below. The capital structure is utilized to fund the operations and expansion. The firm will be successful if funds are available to fund operations and the firm can attain operational efficiency and then maximum profit. The diagram attempts to represent the components of a capital structure.

DEPANDANT VARIABLE

FIRM CHARACTERISTICS
The size, Tangibility, Growth opportunities, Impact of tax, non-debt tax shields and volatility.

FEACTURES OF CAPITAL STRUCTURE
- Firm and manager/owner
- Capital theories
- Identifying financial practices

CAPITAL STRUCTURE

SUCCESS OF MANUFACTURING SME'S

FINANCING CHOICES
- Equity
- Debt financing (Short/ long term)
- Retained earnings
- Other financing

OPERATIONAL EFFINCIENCY
- Resources Utilization
- Production
- Distribution
- Assets Management
- Profit Maximization

INDEPENDENT VARIABLES

Figure 2.1 Conceptual framework model

2.2 Theoretical review

Theory of capital structure was instituted by (Modigliani and Miller 1958) which states that the market will be more structured if there are no taxes. The firm value has nothing to do with the number of debts taken by the firm it does not depend on it (Nawi 2015:12). According to Modigliani and Miller (1958), the model has two values: the buying and selling of assets using arbitrage and borrowing on a personal account. The first preposition of M&M (1958) under ideal market circumstances (inefficient markets with no bankruptcy costs, no taxes and no asymmetric information) the manner a firm is financed does not affect its value. The investments and other activities determine the company's value through the number of cash flows coming from the investment value of the company and the risk related to these cash flows.

The debt-equity ratio separates cash flows between equity holders and lenders (Cakova, 2014:2). Firms that differ solely in their capital structure possess the same performance, which is referred to as former processing. The letter indicates that an investor raises a personal loan using a stake in a leveraged enterprise. He or she can sell the stock, reinvest the revenues in the free cash flow firm, or boost income without incurring new expenditures (Nawi, 2015:13). MM theory, Traditional theory, and trade-off theory are all founded on rigorous assumptions in the old capital structure theory. Modern analytical methods like information economics and game theory are used in the new capital structure, as well as capital structure analyses such as Agency costs theory, superior order finance theory and signal transmission theory (Zhao, 2018:1644). When deciding on capital structure, businesses should consider the tax avoidance effect as well as the bankruptcy cost of liabilities (Zhao, 2018: 1646).

The Modigliani and Miller (1958,1963) Influential offering on the capital structure has two major outcomes. According to (Kwenda, Ntuli, and Gwatidzo, 2015:277) the firm value is independent of capital structure in the perfect market with perfect information and no

transactional costs. Secondly, if taxes are introduced in the M&M framework, tax rates and the associated interest rate shields become controlling factors in the capital structure decisions. It is also practicable for a company to raise capital using debt only (Kwenda, 2015:277). When markets frictions have been taken into a report, the firm value becomes a function of capital structure (Kwenda, 2015:278).

Modigliani and Miller (1963) and Miller (1977) presented personal taxes in the model, and years back it was corporate tax only. Nawi (2015:12) advocated that firms continue to employ debt until the marginal investor's tax matches the corporate tax rate. Further debt supply may raise interest rates until the tax savings of interest deduction are equalized by higher rates (Nawi, 2015:12). Miller's (1977) personal tax theory was then used to establish accounting depreciation and investment tax credits. The issue was that non-debt tax shields may likely lead to market equilibrium since enterprises without profits would be unable to benefit from tax benefits.

2.2.1 Pecking Order Theory

The theory of pecking order is a development of capital structure theory that is used to characterize a firm's behavior. (Wiagustini *et al.,* 2017:120). The theory was popularized by Myers and Magaluf (1984) within the development of the asymmetry approach between investors and management (Wiagustini *et al.,* 2017:120). The researcher Nawi (2015:13), the hypothesis of pecking order was offered by Donaldson (1961), who came with owner-managers favor the capitalization funding applying instead of using external capital, using retained earnings, in any case of proportions or the firm's size. If the investment is more than the retained earnings debt will be repaid (Nawi, 2015:13).

According to Alghamdi *et al.* (2018:148), the theory of pecking order takes up to two sources of financing in a firm: Retained earnings as well as equity and debt. The pecking order theory suggests that an organization should utilize internal sources to keep away from asymmetric information cost, if the firm's current internal resources are insufficient to

fund its operations, it can look at the external sources to finance (Alghamdi *et al.* 2018:148). Nevertheless, the firm must take into consideration the asymmetric information cost than debt. According to Sibindi and Makina (2018:3), the theory of pecking order is compatible with the indicating effects of capital structure alternatives to investors. If the firm issues equity, the stock price will be affected (Sibindi and Makina 2018:3). The good business performance will be influenced by the issue of debts which designate that the firm can repay that debt in the nearest future. Investors presume that equity is riskier than debt, but both components entail risks.

According to Sikander (2018:25), previous studies have shown that managerial investment decisions can influence decisions of the profitability of SMEs especially in a period of economic instability. A considerable amount of research projects approach the issue of the performance of SMEs (Miglo, 2017:1). Recent studies have looked at the profitability of businesses in various sectors of the economy using accounting indicators like return on total assets, financial return, and capital in cases where the element considered in the profitability analysis, independent variables, are financial indicators expressing working capital. (Popa:178).
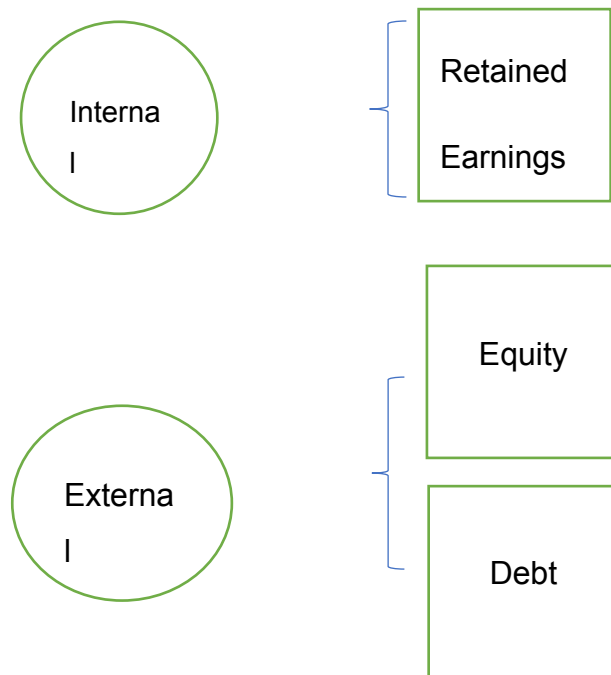
Figure 2.2 Pecking order theory

The diagram predicts what is pecking order theory is about in all connections.

2.2.2 Trade-off Theory

According to Silijander (2018:9), the trade-off theory recommends that companies that produce excessive profit levels will have greater ratios. Wiagustini *et al.* (2017:119) urged that the trade-off hypothesis served as a link between Modigliani's and Miller's theories (1963). The optimal capital structure for MM with tax demands is completely made up of debt, however, it overlooks the assumption of financial distress. Alghamdi *et al.* (2018;146), proposed that since M&M theory suggests the use of debts to achieve tax shield benefits, this will prime to debt financing at 100%, which outcome in a high-level risk, and Kraus and Litzernberger (1973) attach insolvency to the M&M theory, meaning insolvency cost risk has a positive relationship with debt, and obtaining more debts will

result to higher insolvency cost. If a firm acquires the best capital structure, it should trade-off the tax shield benefits with financial insolvency costs.

Organizations will take on a reasonable amount of debt to take advantage of tax deductions, and they will not engage in debt negligence to avoid bankruptcy (Myers 1984). According to Myers (2012), businesses should define a target debt ratio and work toward reaching it. In arrangement with the theory pecking order, this theory says most profitable organizations possess a higher target debt ratio because firms with high profitability ensure lower rate of bankruptcy, higher tax savings from debts, and higher tax savings from debts, and higher over investment. Furthermore, because of non-debt tax shields and personal taxes, this might be overlooked (Miller, 1977). Nonetheless, excessive borrowing will result in financial hardship and maybe insolvency (Martinez, Scherger, and Guercio 2019:108). According to the trade-off theory, there is an ideal capital structure that evaluates the marginal costs and benefits of each additional unit of financing before selecting the kind of financing that equalizes these marginal benefits and costs (Martinez *et al.* 2019:108).

The diagram that predicts was being discussed above about the trade-off theory.
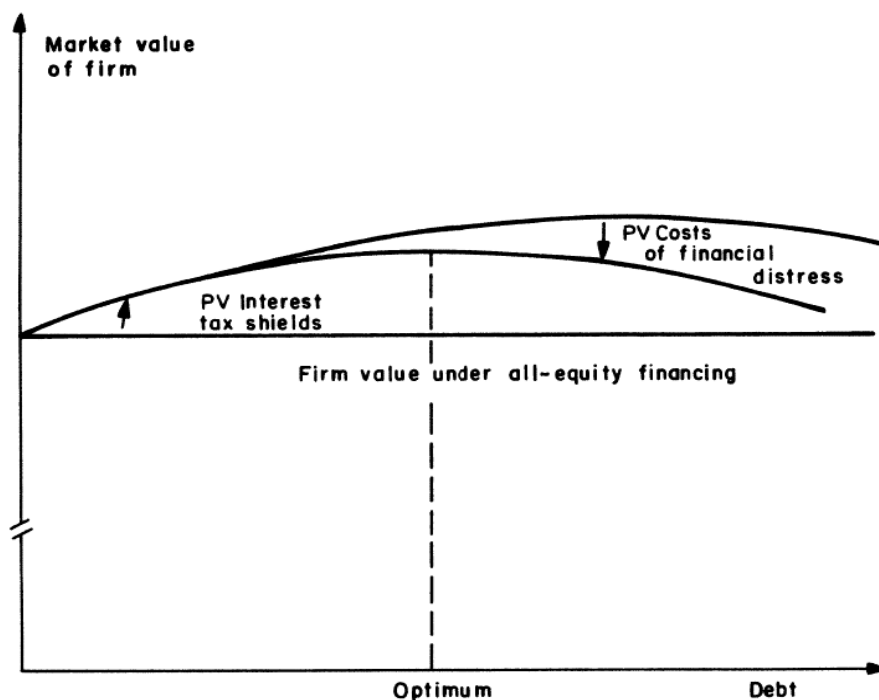
Figure 2.3 Trade-off theory

The diagram predicts what is Trade-off theory is about in all connections.

2.2.3 Theory of Agency Cost

Fama and Miller 1972 initiated the project by observing the possibilities of various grounds between shareholders and management. The theory of agency costs was developed by Jansen and Meckling (1976) expanding from Modigliani and Miller's theory (1958) which concentrated on this theory. Jansen and Meckling (1976) proposed agency cost to place because shareholders or management have a conflict of interest, the proposed agency cost of equity is termed agency cost of equity, and the conflict of interest between shareholders and debtholders is called agency cost of debt. These agency costs can make the firm value be in a compromising situation. According to Alghamdi *et al.* (2018), segregation in the middle of ownership and control will lessen the agency problem in the

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firm and maximize its value. Managers should pay attention more to business owners' interests. Jansen (1986) proposed that for the value of the firm to increase as well as wealth the firm needs to lower the agency cost.

Agency costs can be reduced by several strategies and one of them is debt. Debt can be used to mitigate agency costs proposed by Jansen (1986). The conflict between owner-managers and shareholders can be decreased through debt, using debt to finance firms' operations will reduce agency costs because it decreases free cashflows which can be utilized by managers to serve their interest and not those of shareholders (Alghamdi *et al.,* 2018:147). Debt obligations and interest payments motivate all the managers to pay all the firm's debt obligations, otherwise, the firm will become bankrupt because of the strong relationship between debts and bankruptcy cost (Nawi, 2015:17). However, if a firm fails to pay debt obligations, the firm will be a threat of default, and all managers are at risk of losing their positions and reputation (Songini and Gnan, 2015:750). Debtholders only receive the predetermined payment from interest and principal, whereas equity holders expect benefits from the high-retained investment (Songini and Gnan, 2015:750). Financial distress may be increased by too much leverage financing (Jansen and Mackling, 1976).

Owner-manager agency conflicts are intimately connected to agency relationships, leading to unethical managerial conduct such as exorbitant salaries and bonuses, over-investment for empire-building, and benefits (Xingqiang *et al*., 2019:354*).* However, the mechanisms are highly dependent on the essential determinants, i.e., informal systems such as traditions, customs, religion and norms which are very stable and have remained virtually unaffected for millennia, according to the top-down approach in the institutional analysis framework (North 1990; Williamson 1985). In this regard, scholars ought to pay close attention to different informal systems and explore their implications on owner-manager agency costs.

Table 2.2 Summary of Agency cost

Agency cost

The separation between ownership and control

A conflict of interest exists between management and stockholders (Agency cost).	An agency problem between equity investors and debt holders.	An agency problem between majority shareholders and minority shareholders.
The impact of debts between managers and shareholders:	The impact of debts between equity investors and debt holders:	The impact of debt between majority shareholders and minority shareholders:

- Debt financing decreases the agency problem between managers and shareholders.

- Debt financing decreases the opportunistic behavior of directions.

- The debt financing risk of default leads to the under-investment problem.

- The under-investment problem Is caused by firms that consider the cost of using debt rather than tax shield benefits.

- As explained previously, leverage can mitigate the opportunistic behavior of managers.

- Managers and directors engage in less opportunistic behavior and will do their best to meet all debt and interest

- Debt obligations (re-paying loans and interest) decrease free cash flow that can be utilized by managers to solve their interest.

- It predicts that leverage and firm value have a positive relationship.

- Debt financing is applied to enhance banks' performance.

- The under-investment problem is created by the risks of default which is caused by using debt. According to theory of agency cost, there is an adverse relationship between level of leverage and firm performance and value.

repayment obligations.

- All efforts by majority shareholders especially. If they are managers will benefit, minority shareholders in the long term.

Source: www.aaafr.com

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2.2.4 Life Cycle Theory

Modigliani termed the theory of life cycle as the personal savings or theory of consumption. According to Pal (2020:1), the life cycle theory was developed by Modigliani, Ando, and Brumbery in 1952. Typically, the theory is used to report the evolution of a business based on growth, consumption, and saving behavior. Penrose (1952) assumes that life cycle theory is all about understanding all of the firm's financial requirements and capital structure. Life cycle theory presumes that survival in the early stages of the firm depends on internal, financing. Because there are fewer information gaps as a result of prospective outsiders scrutinizing the firm's creditworthiness, there are fewer information asymmetries, it will be simpler to get external capital as the business grows and generates more income.

This proposal relates to small firms since they are non-transparent and even have relatively high information costs. As the business grows, the funding options and demands change, and the firm becomes more transparent.

2.2.5 Signaling Theory

According to Song *et al.* (2020:2), a fundamental assumption of the theory of Signaling is the emergence of asymmetric information. The most important thing about signaling theory is not only to alert SMEs in the market regarding the emergence of asymmetric information but also to come up with updated or latest procedures to answer the problem of negative selection generated by asymmetric information at a lower cost (Marimuthu 2019:32). The academic Nawi (2015:20) says signal theory emerged on the grounds of the capital structure of the organization may wish to signal the information on elevation potential investors (Nawi 2015:20). The owner-manager will prefer equity over debt because the immoderate consumption of debt might force managers to lose their organization if it liquidates or suffers insolvency (Yang *et al.,* 2020:2).

Also, signaling theory is a compact benefit to small businesses because SMEs are unlisted on the stock exchange and would not by any means signal the information to outsiders in the capital markets (Miglo, 2017:2). Nevertheless, signaling theory can be examined in the occurrence of asymmetric information in case SMEs might be interested in sending signals to lenders or creditors.

2.2.6 Theoretical framework

M&M without tax (1958) and with tax (1963) motivated the development of a capital structure theory; additionally, assumptions of financial distress, asymmetry of information, agency cost, and taxes have broadened views of the concept of capital structure, giving birth to two theories, trade-off theory and pecking order theory, which are relevant to the study.

The challenge of agency costs on SMEs is between external and internal contributions, not between managers and owners (Nawi, 2015:14). Agency costs are good for small businesses, leading the owner-manager to high possibility risks, in the early times of the firm existence where a company can fail. Also, the agency problem is expensive for SMEs. Transaction costs will increase in the middle of SMEs and their credits (Jansen and Meckling, 1976). Observing will place a burden on SMEs, and it will be costly because they are not required to completely divulge information to the market, unlike big businesses, which authorize a limiting of agency costs. The asymmetric information and moral hazards are caused by agency problems which decide the availability of capital structure for SMEs. The above problem could be decreased using a secured debt (Jansen and Meckling, 1976).

According to Yu *et al.,* (2020:2) in the absence of transactional connections or signals of competencies which SMEs apply as agents for their lenders, quality and outsiders must decide with inadequate information, causing high rates of default. However, the lenders must be familiar with a gathering of information to make an exceptional decision

concerning the credit of SMEs and decrease potential risks, therefore for SMEs to get capital at the favorable interest they should share information about their firm.

Pecking order theory is relevant to SMEs and is against loss of control over their companies which leads them to select financing alternatives that minimize imposition to their business activities. The most suitable explanation for SMEs to align with the theory of pecking order of financing is the wish of the owner-managers to maintain objectivity and retain control of the organization. Furthermore, SMEs are probably going to be influenced by moral hazards and adverse selection (Jensen and Meckling, 1976).

2.3 Empirical Review

2.3.1 Empirical review of the firm's characteristics of capital structure determinants and operational efficiency

Many academics over the years have come to a harmonious direction that an increase in a firm leverage ratio is positively match up with the firm's fixed assets, financing opportunities, non-debt tax shields, and firm size whilst a reduction in a firms leverage ratio is negatively correlated with volatility, profitability, advertising expenses, bankruptcy risk and uniqueness of product (Mokuoane, 2016:4). The empirical level, the financial orientation and connection of capital structure and the financial presentation of firms have been studied by many academics since the seminal work of Jansen and Mackling (1976:2). The evidence of these papers has been different between the financial firm's debt levels and financial performance and some of the researchers have found a positive relationship (Kadogo and Mokoteli, 2015:1).

Mohammad and Gharaibeh (2015:3) confirm that a family business (small business) based business nature does lead to employing financial policy differently from the rest of the businesses. Nevertheless, financial distress costs, growth opportunities, and internal sources are the essential components that modify the financial behavior of family firms from their non-family firms. According to Mohammad *et al.,* (2015:3). The capital structure

of an organization can be impacted by its size and growth prospects. Profitability, non-debt tax shields, collateral, and uniqueness are the most significant aspects of capital structure, in that order and growth.

Pattweekongka and Nopompech (2014:49) found several variables that influence a capital structure in the hotel business in Thailand using the regression model of research. The result shows that the hotel is a business with the highest level of debt, with debt proportions of 83.8% of total assets. The result also highlighted that capital structure is impacted negatively by factors like profitability liquidity and affected positively affected by assets structure. The result also confirms the theory of pecking order than the theory of trade-off (Pattweekongka *et al.,* 2014).

Many scholars have attempted to analyse the factors that influence capital structure (Modigliani and Miller,1958,1963; Jansen and Mackling 1976; Myers 1977,1984; Myers and Majluf 1984; Myers, 2001; Fama and French, 2002). These past views can be classified into three major theoretical perspectives describing a firm-level of the determinants of capital structure and all they have failed to come into conclusion with a commonly accepted agreement. Xuan Voc (2017:111-112) performed research to better understand the factors that influence capital structure decisions Vietnam. The data was obtained from the listed firm on the Ito Chi Minh city stock exchange from the year of 2006 to 2015. The findings of the study revealed an adverse relationship between short-term and long-term leverage. In both short and long-term leverage, the link between determinants and capital structure and determinants will be different. In all recessions, whether length-term or short-term, the growth potential indicators were positive but not significant. Because high-growth firms tend to fund projects with bank loans, this consensus supports agency cost theory. The tangible assets were also found to be significant and positive in long-term leverage regressions, but significant and adverse and significant in short-term leverage regressions. Profitability was also discovered to be negatively linked to capital structure. In the regression of long-term debts, firm size was positive and significant. To maximize their investment, small enterprises use short-term

financing. The outcome is in line with Agency theory. Lastly, liquidity is adversely linked to the capital structure of the firm (Xuan Voc, 2017:111-112.

Zabri (2014:132), researched the capital structure determinants amongst SMEs in Malaysia, amongst SMEs list of enterprises and 50 winners were chosen to participate in the study from 1998 to 2010. Electric surveys were used in the research and only 29,5% participated (Zabri, 2014:132). The result shows that the average debt-to-equity ratio amongst the SMEs is 57% to 43%. The components that determine a business's capital structure were investigated using chosen firm characteristics like asset tangibility, non-tax shields, and firm liquidity, all of which were found to have a statistically substantial correlation with the capital structure of the firm (Zabri, 2014:132). The result also shows that the SMEs in Malaysia depend on debts moreover equity-sources of financing. Which means they use external financing more frequently (Zabri, 2014:132). Pearson's collection method was used on liquidity, non-debt shields, profitability, tangible assets, and growth were tested found to have a substantial link with capital structure while firms age, they used spearman's correlation which proved that it has no static relationship with capital structure. On the firm, the size was tasted using Biserial correlation, and the result proved they have no static relationship with capital structure (Zabri, 2014:145).

The effects of capital structure on financial performance of a firm by (Nassar, 2016:1). The study used the financial performance/statements of 136 industrial enterprises listed on the Istanbul stock exchange (ISE) from 2005 to 2012, a period of 8 years (Nassar, 2016:1). To assess the relationship, multivariate regression analysis was being used. The findings revealed an adverse significant link between company performance and capital structure (Nassar, 2016:4).

Serghiesu and Vaidean (2014:1447), evaluated the relative relevance of five components in capital structure decisions made by Romain enterprises registered on the Bucharest stock exchange and operating in the construction sector. The study used panel data estimations on 20 organizations that had been tracked for three years (2009 to 2011).

These were chosen to see how independent factors influenced the company's leverage (Serghiesu and Văidean, 2014:1447). The findings demonstrate that liquidity and profitability ratios have an adverse effect on Romanian companies' total debt ratio (Serghiesu and Văidean, 2014:1456). The tangibility of assets is also negatively affected, in which another empirical evidence claims that the indicator moves in different direction with the debt ratio. Furthermore, the size of the business is also positively affected by a capital structure which corresponds with the study conducted by other researchers (Xuan vim Vo, 2014).

The study looks at the factors that influence leverage companies in five Sub-Saharan African countries (Ghana, Nigeria, South Africa, Kenya and Zimbabwe) from 2006 to 2016 by Khémiri and Noubbigh (2018:150). The forecasts of the theory of pecking order and trade-off theory are supported by the results of GMM estimates and quadratic approaches. They also show that the firm's performance and leverage have an inverse u-shaped connection (Khémiri and Noubbigh, 2018:158).

Chung, Liu, and Wang (2018:65) performed research based on the interaction between institutional monitoring and corporate debt regulations, which supports the existence of capital structures. Due to the nature of such efforts, the results show that aggregate institutional is negatively associated with deviations from leverage targets and negative association is driven by long-term debt (Chung et al., 2018:76).

The existing research dispute regarding the basic drivers of capital structure in Chinese enterprises, according to (Chang, Chen, and Liao, 2014:87). When compared to proof from the United States and other nations, industry leverage, the profitability, firm size, assets growth, tangibility, state control and the largest shareholding as a reliable core factor clarifying book leverage were identified as new factors, and it was observed that the relative significance of four common core factors for Chinese firms' id diverse (Chang *et a*l., 2014:110). In contrary to what several earlier research has found, state control is

adversely related with book leverage. The test indicated an adverse influence on state-control derives primarily from easier access to equity financing (Chang *et al.,* 2014:110).

Alipour, Mohammadi, and Derakhshan (2015:53) research analyzes several theories of capital structure to conclude formulated stable prepositions, about the determinants of the capital structure of Iranian companies. The researcher selected manufacturing firms listed on the Iran stock exchange which is the Tehran stock exchange from the year 2003 to 2007 (Alipour *et al.,* 2015:75). The study's findings suggested that the causes of capital structure and other variables like financial flexibility, risks, and state ownership affects all indicators of capital structure in the manufacturing firms situated in Iran (Alipour *et al.* 2015:75). The results of the present study were compatible with some of the capital structure theories (Alipour *et al.,* 2015:76).

Rao, Kumar, and Madhavan (2019:1) performed research on the variables that influence capital structure decisions of SMEs in India. There were 174 non-financial firms in the sample. The generalized method of moments (GMM) was used to determine the firm-specific determinants influencing SMEs funding decisions. The research looked at how the profitability of firm,growth, tangibility, size, age, cash flow ratio, liquidity, non-debt tax shield, and return on equity affected the firm's leverage. (Rao *et al.,* 2019:48). Profitability was found negatively associated with leverage. Furthermore, because the cost of accessing financing is higher in India, SME owners prefer internal sources over external funding (Rao et al., 2019:48). According to the research, mature SMEs have high creditworthiness in the market and a strong reputation, which makes it easier for them to secure loans for their operations (Rao et al., 2019:48). The age factor contributes to the resolution of information asymmetry with creditors to some extent, and so has a positive connection with leverage. The study indicated that the size of the firm was negatively related to its debt, and it supported the theory of pecking order (Rao et al., 2019:48). Growing businesses have a wide range of opportunities and investments, yet they need money for financing. The increase of loans in financing decreases agency cost conflicts, but they are less common in SMEs than in large corporations (Rao *et al.,* 2019:50).

Osano and Languitone (2016:1) investigated the factors that influence SMEs' access to capital in Maputo's central business district. The target population was 2725 people, including 2075 bank employees from BIM, BCI, and Standard Bank, as well as 650 small businesses in Maputo's central business district. A total of 324 employees and 242 SMEs from the mentioned banks were included in the sample. The study design was descriptive and inferential. The primary data was collected with the use of structured questionnaires (Osano and Languitone, 2016:1). The study discovered that there exists relationship between SMEs access to credit and the structure of the financial sector, as well as a relationship between collateral requirements and SMEs' access to credit (Osano and Languitone, 2016:1). The conclusions of the research were crucial because they would allow the government to develop suitable regulations, initiatives, and plans to improve SMEs' access to capital (Osano and Languitone 2016:1). Small business support services should be offered to SMEs to increase finance access, according to the research, and additional financial schemes and funding programs to aid SMEs are needed (Osano and Languitone, 2016:1).

In King William's Town, South Africa, the researcher looked at the effects of firm and entrepreneurial characteristics on SMEs' access to debt financing (Fatoki and Asah, 2011:170). The research looked at SMEs that are included in the Enterprise Directory and Yellow Pages telephone directory. There were 173 SMEs in the population. The sample size ended up being 120 SMEs. In a survey, data were collected via a self-administered questionnaire (Fatoki and Asah, 2011:170). Descriptive statistics, person correlation, and logistic regression were all used in the statistical study. The findings revealed that SMEs' access to debt financing is influenced by their business and entrepreneurial characteristics (Fatoki and Asah, 2011:170). SME owners/managers should be investment-ready by providing collateral and attending seminars and training programs to increase their management skills, recommend by the study.

Mukaddam and Sibindi (2020:118) investigated the capital structure and financial performance of wholesale and retail firms listed on the Johannesburg stock exchange in

South Africa. The data was gathered during a ten-year period, from 2010 to 2019. The study used a sample of 18 retail and wholesale firms in South Africa. Firm size, Board size, board independence, institutional ownership, and debt-to-equity ratio were included as independent factors in the study. Return on equity and return on assets were the dependent variables. The findings of (Mukaddam and Sibindi, 2020:140) study revealed a negative relationship between financial performance and capital structure. From the findings, it is concluded that the profitability of retail businesses in South Africa is unconnected to the debt amount which was accumulated. The findings enhanced the theory of pecking order of funding behavior instead of the trade-off theory of financing behavior. Excessive debt in the retail industry has a detrimental influence on their financial performance (Mukaddam and Sibindi, 2020:141).

The research by Spitsin, Vukovic, and Spitsima (2020:313) examined the impact of capital structure on firm performance (return on assets). The purpose of the separation analysis was to look at the impacts of firm size, age and location. From 2013 to 2017, a total of 1826 businesses were used in the study (Spitsin et al., 2020:313). The findings supported the theory of static trade-off and demonstrated that the theory applies to nations with transition economies (Spitsin et al., 2020:313). Small firms and enterprises have a greater optimum share of borrowed capital than bigger businesses. There were no discernible differences in profitability growth between new and established businesses. The optimal amount of borrowed money to maximize return on assets is in rage right now. (Spitsin *et al.,* 2020:313).

In addition, Balorinwa and Adegboye (2020:26) evaluated the factors of capital structure and the speed with which Nigerian enterprises adjusted their capital structure decisions between 2005 and 2018. The findings reveal that speed of adjustment and persistence are present in capital structure decisions made by Nigerian enterprises. The empirical findings also demonstrate that short-term debt instruments help Nigerian enterprises alter their capital structure decisions faster than long-term debt instruments. Second, when it comes to capital structure decisions in Nigerian organizations, performance is a major

factor (Balorinwa and Adegboye, 2020:52). Our empirical findings confirm the dominance of dynamic trade-off theory and pecking order theory in Nigeria's context. Furthermore, the empirical findings of the study appear to be in line with the expectations of the theory of dynamic trade-off. Listed firms in Nigerian modify their present ratios versus the intended debt targets to avert financial disequilibrium. Our results have several policy consequences. First, managers and businesses should use short-term debt instruments to achieve their desired optimum debt level in their daily financial decisions than long-term debt instruments (Balorinwa and Adegboye, 2020:52). This has the potential to help Nigerian businesses achieve their desired debt levels while also increasing their profitability.

Chipeta and Deressa (2016:649) observed the influence of country-specific and firm determinants on capital structure dynamics for a new data set of enterprises in Sub-Saharan Africa. A study of 412 enterprises from 12 nations in Sub-Saharan Africa was carried out using panel data estimate methods. The findings reveal that business and country-specific factors have an impact on how enterprises in Sub-Saharan Africa pick their debt (Chipeta and Deressa, 2016:649). To begin with, business profitability is the most prevalent important indicator of capital structure in Sub-Saharan Africa. In countries with the least developed banking and financial markets, as well as the weakest legal structures, the importance and magnitude of profitability coefficients are greater. Secondly, Nigerian, and Zimbabwean enterprises can extend the term of their loan due to the rule of law in these nations. In Ghana, a firm's debt choice is affected by legal rights strength, the time it takes to execute a contract, and the cost of contract compliance (Chipeta and Deressa, 2016:649). Thirdly, all of the nation evaluated had slow capital structure change speeds, which is likely owing to market imperfections associated with Sub-Saharan Africa's weak financial markets. Finally, corporations in the most established stock markets in Sub-Saharan Africa had lower mean debt ratios and faster capital structure change rates. Firms in countries with stable legal systems often have higher

mean long-term debt ratios and quicker capital structure change rates. (Chipeta and Deressa, 2016:649).

Research by Bajaj, Kashiramka, and Singh (2020:845) looked into the dynamics of capital structure for enterprises in India and China. Whether and how they alter their capital structures to examine trade-off behavior in response to various macro-level factors. The analysis uses companies that were listed on the National Stock Exchange and the Shanghai Stock Exchange between 2009 and 2018. (Bajaj et al., 2020:845). Indian enterprises return to their target leverage levels at a faster rate than Chinese firms about (30 and 20 percent, respectively). In addition, bond market, inflation rate, and stock market growth are important determinants of leverage in India, while bond market growth has a substantial impact on leverage in China. The findings are reliable across a range of leverage ideas as other company and institutional control factors (Bajaj et al. 2020:845).

Figure 2.4 The other empirical reviews based on the Capital structure of the firms and their performance

Authors	Ganiyu et al. (2019)	Anarfo et al. (2017)	Sibindi (2018)		Schulz (2017)	Matias et al. (2017)
Sample period	115 listed non-financial firms in Nigeria.	37 countries in SSA	16 Banks and 26 Insurers (2006- 2015)		SMEs (2008-2015)	11.016 SMEs (2007-2011)
Dependent variable	Book leverage (ratios)	Book leverage (ratios)	Book leverage (ratios)		Book leverage (ratio)	Book leverage (ratio)
Independent Variables:			Pecking Order theory	Trade-off theory	Pecking Order theory	
Firm size	Positive (+)	Positive (+)	Positive (+)	positive (+)	Positive (+)	Positive (+)
Profitability	-	Positive (+)	Negative (-)	Positive (+)	Positive (+)	Negative (+)
Assets Tangible	Positive (+)	Positive (+)	Negative (-)	positive (+)	Positive (+)	Negative (-)
Growth	Positive (+)	Positive (+)	Positive (+)	Negative (-)	-	-
Firm Risk	Positive (+)	-	Positive (+)	Negative (-)	-	-
State ownership(tax)	-	Positive (+)	-	-	Positive (+)	Positive (+)

Source: own compilation.

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Ganiyu, Samuel, Adelopo and Rodionova (2019:31) investigated the effect of capital structure on performance of firms in Nigeria, as well as the likelihood of a non-monotonic connection between firm performance and capital structure, based on the agency cost theory's prediction of unsustainable debt financing (Ganiyu et al., 2019:31). The study employed panel data from 115 non-financial companies to run a dynamic panel model. The article used the two-step generalized system of moments (GMM) estimation approach, which uses the lag value of the dependent variable as an explanatory variable in the regression model to account for its persistence (Ganiyu et al., 2019:31). The major findings suggest that firm performance and capital structure have a statistically substantial link, especially when debt financing is employed modestly. However, because Nigerian enterprises relied on unsustainable debt financing, the research revealed evidence of a non-monotonic link between capital structure and company performance, which had an impact on firm performance (Ganiyu et al., 2019:31). The findings support the application of the agency cost theory in the Nigerian environment; however, caution is advised given that Nigerian enterprises often finance themselves with short-term debt instead of the long-term debt expected in the agency cost theoretical proposition (Ganiyu *et al.,* 2019:31). In view of this, the analysis assumes that capital structure affects firm performance (Ganiyu *et al.,* 2019:43).

In this study, the effect of capital structure on bank profitability in Africa is explored by (Anarfo and Appiahene, 2017:55). The Debt Ratio (DR) was employed as a measure of capital structure in the research, which included data from 37 countries in Sub-Sahara Africa and was based on dynamic panel regression rigorous analysis (SSA). Debt ratio, bank size, GDP growth rate, inflation rate, asset tangibility, bank growth rate, taxes and interest rates were all used as predictors of bank profitability in Sub-Sahara Africa (Anarfo and Appiahene, 2017:64). Risk-Adjusted Return on Asset (RAROA), Net Interest Margin (NIM) and Risk-Adjusted Return on Equity (RAROE) were used to calculate bank profitability. Size, tangible assets, inflation, taxes, and interest rate are all factors that have a substantial impact on a bank's profitability (Anarfo and Appiahene 2017:55). According

to the findings, a bank's capital structure is a negative profitability driver. This means that banks in Sub-Saharan Africa will benefit more from lowering their debt ratios and turning to equity funding to improve their profits, as larger debt ratios reduce profits. Due to the underdevelopment of financial markets in Sub-Saharan Africa, African banks do not place a premium on the signaling theory when using equity financing (Anarfo and Appiahene, 2017:64). According to the trade-off principle of capital structure, the unfavorable effect of banks' capital structure on their performance could be due to higher cost of bankruptcy which overshadow the advantages of debt finance in the form of tax savings (Anarfo and Appiahene, 2017:64). Since corporate tax rates limit bank profitability, the government and policymakers should lower them. As taxes are cut and banks become more profitable, they are in a better position to produce more jobs, lowering Africa's unemployment rate. Banks should raise their interest rates slightly because it improves their Net Interest Margin (NIM) (Anarfo and Appiahene, 2017:64).

Makina and Sibindi (2018:1), this research compares and contrasts the factors that define the capital structures of financial organizations using two separate samples of insurance firms and banks. It uses two samples of 26 South African insurance firms and 16 South African banks from the period 2006 to 2015 (Sibindi and Makini, 2018:1). The link between firm-level determinants of capital structure and leverage is investigated in every study, and the elements of capital structure, which included growth possibilities, risk, size, and profitability. The findings demonstrate that the typical firm-level determinants of capital structure observed in non-financial firms often extend to insurers and banks (Sibindi and Makini, 2018:10). The findings of this study provided proof in support of this school of thinking, as traditional firm-level capital structure determinants had substantial explanatory power in terms of the leverage variable. However, leverage was discovered to be positively linked to growth opportunities, risk, and size variables (Sibindi and Makini, 2018:10). Profits, on the other hand, were found to have an adverse link with bank leverage. This shows that South African banks' financing activity is consistent with the pecking order principle. Similarly, evidence supporting the hypothesis that firm-level

determinants of capital structure have predictive power in insurer leveraging has been discovered in the insurance sector (Sibindi and Makini, 2018:10). However, leverage was discovered to be positively linked to growth, size, asset tangibility, and reinsurance variables (Sibindi and Makini, 2018:11). On the other hand, profits were found to have a negative relationship with insurer leverage. The results also show that the pecking order theory is the most reliable explanation for the capital structure of South African insurance firms (Sibindi and Makini, 2018:11).

Schulz's study (2017:1) used panel data from Dutch SMEs from 2008 to 2015 to examine the effect of capital structure on firm performance. The information was gathered from Bureau van Dijk's Reach database (Schulz 2017:1). In addition, two sub-panels were formed to look at probable changes in the impact during and after the financial crisis. The pecking order and trade-off hypotheses, both of which adopt contrasting signs for the relationship, were used to explore the impact (Schulz, 2017:1). In two distinct empirical models, return on capital employed and return on assets were utilized as proxies for outcomes. The capital structure was determined using total debt and the percentage of short-time and long-term obligations to total assets. The empirical data reveal that all proxies of capital structure, as well as the ROA as a success proxy, have a negative and statistically significant association, which supports the pecking order theory (Schulz, 2017:1). Almost all of the financial leverage proxies considered in this study had a statistically significant negative connection with the SME efficiency metrics of return on capital employed and return on asset, according to the findings. The control variables size and liquidity were also included in the multivariate analysis. The findings for size are mixed, with low statistically significant positive relationships in Model 1. Module 2, However, suggests a adverse symbol, and only Model 2 has meaning. The findings of the size impact on success are inconclusive (Schulz 2017:9). Liquidity has a very weak relationship with success indicators. It's worth noting that in Model 1, this connection is negative but negligible, while in Model 1a, it's negative and significant. Liquidity has a low adverse relationship with performance that is important in Model 2a, but it has a low

position relationship that is insignificant. This demonstrates that there is no definite sign of the effect of liquidity on results (Schulz, 2017:9). Finally, the analyses demonstrated that the financial crisis had only a little influence on the capital structure and performance proxies' relationship. To summarise, the findings corroborate the pecking order hypothesis, since the link between capital structure and performance in Model 1 is negative, and better explains performance variance than Model 2. In addition, the influence of capital structure on performance of firm during and after the financial crisis yielded mixed effect. On the other hand, size and liquidity aren't necessarily statistically significant output control factors (Schulz, 2017:9).

Based on an empirical literature analysis of capital structure decisions in Portuguese SMEs, Matias and Serrasqueiro (2017:19) investigate the relationships between the determinants –asset structure, age, profitability, scale, and development, defined as consistent determinants in the empirical literature – and debt for SMEs in various regions of Portugal (NUTS II). The global survey consists of 11.016 SMEs and spans the years 2007 to 2011(Matias and Serrasqueiro, 2017:19). Generally, the data propose that such determinants are accurate in predicting Portuguese SME capital structure decisions, proposing that these decisions are more similar to Pecking Order Theory projections than Trade-off Theory assumptions. However, neither financial theory is sufficient to support SME capital structure decisions (Matias and Serrasqueiro, 2017:19). Furthermore, our findings show that SMEs' capital structure varies by area and that there are some regional variations in the effect of assets structure, age, profitability, scale, and development on firm debt, which may be explained by regional heterogeneity (Matias and Serrasqueiro, 2017:19). The relationship between debt and growth is essentially non-existent. Due to the inability of their owners/managers to expand, many SMEs avoid taking on debt, prioritizing firm independence and leverage over the goal of maximizing firm valuation (Matias and Serrasqueiro, 2017:31). Pecking Order Theory is supported by the determinants of profitability, age, and tangibility of properties, which better describe overall debt, medium-long term debt and short-term debt respectively, these results were

consistent with Sibindi and Makina (2018) which also supported pecking order theory (Matias and Serrasqueiro 2017:31). Overall, the findings show that the factors of scale, profitability, age and asset tangibility are effective in understanding the capital structure decisions of Portuguese SMEs (Matias and Serrasqueiro, 2017:31). on capital structure. The theoretical review was based on the pecking order theory, Agency cost theory, Trade-off theory, signaling theory, and life cycle theory, although when these theories were created no one had SMEs in their mind, they had large businesses. The empirical review concentrated on the importance of capital structure and performance of SMEs in South Africa and other countries around the world. The last part of the review was explaining different available sources of finance for SMEs in the manufacturing sector.

The next chapter describes the research methodology used for this thesis.

3 CHAPTER THREE
METHODOLOGY

3.1 Introduction

Chapter three starts by discussing the research design and research approach. After the two research components are listed, it will move to define and validate the methods of research methods that will be applied on the projects.

3.2 Research design

According to Akhtar (2016), the research design is defined as the method by which the researcher likes to integrate the many aspects of the study logically and reasonably to ensure that the research topic is addressed. A research design is a method or plan for gathering data, calculating, and analyzing it to answer questions for your research questions (Sekaran and Bougie, 2016:95). A research design is a method for gathering and analyzing data to balance importance to the purpose with technique and economy. The study design aids the researcher in gathering the evidence needed to effectively solve the research problem. The goal of research design is to create a plan of study plan that enables an accurate assessment of cause-and-effect correlations between independent and dependent variables.

3.2.1 Quantitative research

Qualitative and quantitative research are the two techniques of gathering and interpreting data. The quantitative research approach will be used in this investigation. At their most basic, quantitative research methods are processes of gathering and interpreting structured data which are represented numerically (Goertzen, 2017:12). One of the primary objectives is to generate precise and reliable metrics that can be statistically examined (Goertzen, 2017:12). Quantitative data collection is the process involved in

capturing structured data using instruments such as questionnaires. For this investigation, a quantitative research approach is most suitable. The reason for choosing this method is to support numerous kinds of literature. The use of quantitative analysis is because the researcher needs to draw assumptions about the research field and propose them.

Cross-sectional analysis is the collection of data from a sample of individuals (or groups) at a time (Cherry 2019). Cross-sectional analysis is observational and is regarded as descriptive, not casual, research, which means that you cannot use it to determine the cause of anything. Cross-section analysis is cheaper and time-consuming than many other types, allowing you to quickly gather data that can be used.

For this analysis, the research design will be quantitative and cross-sectional

3.2.2 Data

Researchers obtain primary data directly from significant sources through interviews, surveys, and experiments, among other approaches. Primary data is the most helpful sort of data in a study since it is generally obtained directly from the source of the data. Secondary data refers to material obtained from primary sources and made available to researchers for use in their study. It's a sort of information that has already been obtained.

In this study, primary data analysis will used primary data analysis as it is deemed to be ideal for the study.

3.3 Target population

Population is the absolute group of individuals who possess ordinary characteristics in which the researcher is interested. A research population refers to a large group of individuals or objects that are the focus of a scientific investigation. They are two methods of determining population, namely, the target method and accessible method (William, 2014). The accessible method will be used in this study. They are 498 SMEs listed under

Msunduzi Municipality. These SMEs are categorized in the Msunduzi Co-operative database in different sectors, locations, contact details, addresses, and registration numbers (Katambwe, 2017). They are 148 manufacturing SMEs out of 498 listed in the report (Katambwe, 2017). The population of the study will be 148 manufacturing SMEs situated in PMB.

3.4 Sampling method

According to Etikan and Bala (2017:215), sampling is defined as the process of gathering units from a population of interest so that the results of the population from which they were picked may be generalized. There are two sorts of sampling techniques to choose from.

3.4.1 Probability (Random) sampling

The phrase "probability sampling" refers to the fact that each person in the population possess an equal opportunity of being involved in the survey (Etikan and Bala, 2017:216). This is a sampling strategy that guarantees that each item in the universe has the same opportunity of being involved in the sample (Etikan and Bala, 2017:216)

In case study design and qualitative analysis, non-probability sampling is also employed. Non-probability sampling is a sampling approach that relies on no assumptions about the possibility of components in the universe being included in the research sample (Etikan and Bala, 2017:215).

A convenience sampling technique that falls within the limits of a non-probability sampling method will be used in this analysis.

The sample size calculation

The sample sizes

S= Z^2 x p x (1-p) / M^2 and Adjusted Sample = (S)/1 + [(S-1)/ population]

Z-score[Z] – (is based on confidence level)

P – population proportion assumed to be = 50% - 0.05

M – margin of error is 5% = 0.05

Confidence	Z-Value
90%	1.645
95%	1.960
99%	2.576

S = Z2 X p x (1-p) / M2

S = (1.96)2 X 0.5 X (1-0.5) / (0.05)2

S = 3.8416 X 0.25 X 0.0025

S = 384.16

Now we adjust the sample size of the population of 148 manufacturing SMEs to the required population.

Adj sample = (S) / 1 + [(S-1) / population]

Adj sample = 384.16 / 1 + [(384.16-1) / 148]

Adj sample = 384.16 / 3.588918919

Adj sample = 107

Hence, using cluster sampling, the sample size will be the entire population which is 148 Manufacturing SMEs in PMB since the adjusted sample 107 is close to the total population of 148. Since the study will be adopting the non-probability sampling, which is convenient, we will be sending it to those reachable manufacturing SME's.

3.5 Data collection

Data collection is the most significant aspect of any research activity (Bryman, 2016:10). According to Yaya (2014:1), the measuring instrument is the instrument applied by the researcher to collect data from the participants for his research work. The details are the various types of information that the researcher obtains from the study participant. Primary data is information collected by a researcher using a questionnaire or a personal interview. Secondary data, the researcher gathers information that has already been gathered and analyzed by some organizations or researchers (Yaya, 2014).

There are several methods of data collection, therefore, it is advisable to select methods that are compatible with the goals of your research or analysis. The survey questionnaire was considered most relevant. To achieve the three objectives of the study a survey questionnaire will be utilized in this study

3.5.1 The Questionnaire

According to Mcleod (2018), a questionnaire is a tool in research which consists of a series of questions used to gather data from specific respondents.

The questionnaire applied in this analysis is shown in Appendix A. This was the primary data collection method for this analysis.

3.5.1.1 Data collection tool: Questionnaire

The questionnaire was shared into four sections with a total of 61 questions. The four sections looked at the following elements about the study's objectives. The study intends to investigate the effects of capital structure on the operational efficiency of SMSME in Pietermaritzburg, and the study's objectives will be addressed in the following sections of the questionnaire:

Section A: This section concentrated on the demographic data of the owner/manager, including race, educational level, and experience. This section was included to assess if the management characteristics of the manager/owner affect the firm's capital structure.

Section B: This section focuses on the demographic details of the firm, including the nature of the firm, the number of years of service, the form of premises used by the firm, and the number of employees of the firm. This section was included to assess the number of years of service of the firm and to decide if the firm's characteristics had an effect on the firm's capital structure.

Section C: This section focuses on details on the financing of the firm, including the type of financing used by the firm at the initial stage of the firm as well as at the time of establishing the firm and the type of capital the owner prefers as an individual. This section was included to assess the type of financing the manufacturing SMEs used at the establishment stage.

Section D: This section emphasizes the factors that affect the operational efficiency of SMSME, difficulties do SMSME encounter in accessing financial assistance from financial institutions, and effects of capital structure on the operational efficiency of SMSME.

The questions were divided into three categories: multiple-choice, dichotomous and Likert scale. Closed-ended questions were included in the survey. Closed-ended questions are those that can only be answered by selecting one of a few options. Closed-ended questions contain little information but are simple to evaluate for quantitative data.

3.5.1.2 Pilot study

The questionnaire was conducted to confirm that the right and appropriate questions with no ambiguity are being asked. Pilot research is a short feasibility study that is intended to evaluate various parts of the techniques that will be used in a bigger, more severe, or confirmatory investigation (Low 2019:117).

The survey questionnaire was piloted by emailing the link to the first few respondents to ensure that the respondents were asked the correct and suitable questions with no ambiguity. The few people who got the link were included in the sample size, but they were only invited to complete the questionnaires again after the changes were made.

3.5.1.3 Data collection procedure

Data collection continued after consent was acknowledged from the Durban University of Technology's (DUT), Faculty of Accounting and Informatics Research Committee.

Firstly, the consent form will be sent electronically to the respondents. If they agree to complete the questionnaire, the questionnaire link will be sent via emails and other communication channels to the respondents. The email addresses of these respondents will be accessed via their website. Participants will be the owner-manager of the manufacturing SMEs in PMB. The respondents will be the manufacturing SME owners of each selected sample firm.

Specifically, the table below shows the distribution of questionnaires across the different chosen manufacturing companies.

Types of Manufacturing SMEs	The number of firms/Respondents.
Food and Beverages	30
Textiles	50
Furniture	19
Wood, paper, and printing	25
Steel, detergents, toilet paper, towels, and Crafts/beadwork.	24
TOTAL	148

3.5.1.4 Data collection preparation

Data were processed and analyzed using a statistical package for the social sciences (SPSS) once replies from the research participants were received.

3.5.1.5 Data entry

The data will be captured into Microsoft Excel spreadsheets. Thereafter the responses will be coded and analyzed with the use of the statistical package for social science (SPSS) version 17 for data analysis.

3.6 Data Analysis

The method of cleaning, reviewing, converting, and modeling data to extract critical information, enhance decision-making, and provide conclusions is known as data analysis (Pal, 2017:1). Data analysis is the deliberate application of statistical and logical tools to explain, exhibit, and analyze data. Data analysis is the method of putting structure, order, and meaning into a data jumble. Descriptive, regression, and factor analysis was used in this study.

3.5.1 Descriptive (Frequency tables and percentages graphs)

The approach of descriptive analysis is used to characterize the type and magnitude of sensory qualities objectively (Kemp, Hort, and Hollowood, 2018:1). Individual variables were summarized using frequency tables, which were then sorted into categories that reflected the research objectives.

3.7 Data reliability and validity

The section will define the term's reliability and validity. The definitions of these concepts, as well as how the research would approach them, will be provided below.

3.7.1 Validity

Validity has historically been described as the extent to which a measuring instrument or test measures what it plans to measure or how effectively a measuring instrument or a test performs its function, according to (Oluwatayo, 2012:391). The validity of the information acquired relates to how well it is related to the research (Taherdoost, 2016:28). Validity means "measure what is intended to be measured", For a group of related constructs, face validity and content validity were assessed simultaneously. Validity means that if the results obtained are truthful and believable.

3.7.1.1 Face validity

The extent to which a measure captures the intended construct in the perceptions of intended participants is known as face validity (Kennedy, Kichler, Seabrook, Matthews, Dworatzek, 2016:859). Face validity was addressed through pilot testing the questionnaire and the feedback was used to refine the questions

3.7.1.2 Content validity

Content validity is a theoretical notion that examines the extent to which a measurement instrument demonstrates evidence of complete and fairly coverage of the area of items it claims to cover (Oluwatayo, 2021:392). Content validity will be the validity test to be carried out on the data.

3.7.2 Reliability

According to Moskal and Leydens (2002) validity is the extent that supports that the evidence and interpretations of the data are appropriate and correct. The consistency of the results when the research is repeated several times with the same methodological conditions is measured by reliability. According to Heale and Twycross (2015:67), the constancy of measurement is called reliability. When completing an instrument to examine motivation, there should be about the same number of responses at every time test is carried out. When the items on a scale "hang together" and measure the same construct, it is considered to have high internal consistency reliability (Taherdoost, 2016:33). There are three types of validity when you want to test if a measure is reliable: internal reliability, stability, and inter-rater reliability. Therefore, for the quantitative analysis, the study used Cronbach's alpha to test and define the reliability of each construct, and composite reliability was utilized.

Inter-item consistency

Kennedy *et al.* (2019:859) Inter-item consistency the Cronbach a coefficient has been used to determine how well items in each domain correlated with one another (internal consistency). The Cronbach Alpha coefficient is the most generally used internal consistency statistic, especially when employing Likert scales, and it is often recognized as the most reliable indicator (Taherdoost, 2016:33). A reliability score of 0.7 or above 1 is considered adequate.

3.8 Justification of the Methodology

The study will be inclusive of primary data which is most appropriate for the study. A quantitative research method will be adopted for this study as it helps to collect data from the large population which will help to identify the effects of capital structure on the operational efficiency of manufacturing SMEs within the KwaZulu-Natal province, Pietermaritzburg. The quantitative research method also helps the researchers to control variables considered in the study.

3.9 Anonymity

All the participant's identities will be protected during the study. They will be referred to as anonymous. However, the name of the manufacturing company will be revealed in the study.

3.10 Ethical consideration

The four ethical aspects have been considered to ensure there is no privacy invasion, no injury to participants, no lack of informed consent, and no dishonesty. All these will be adhered to during the research study.

3.11 Ethical clearance

The ethical clearance required to administer questionnaires will be received from the Faculty of Accounting and informatics, Durban University of Technology.

3.12 Chapter summary

This chapter was about the methods that will be applied and procedures for data collection during the research work. Hence, data analysis is discussed in the the next chapter.

4 CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

The findings of the study coupled with their interpretation and discussion, are presented in this chapter. The study aimed to investigate the effects of capital structure on the operational efficiency of SMSME in Pietermaritzburg, KwaZulu Natal, South Africa.

The outcomes are presented in graphs (figures) and tables and divided into different sections to attain the main goals of the research work. The results are presented and interpreted in accordance to the objectives of the research work and discussed concerning the respective literature on the study objectives. A total number of 141 respondents participated in the research work. Data was obtained from survey questionnaires and analysed using Statistical Package for the Social Sciences (SPSS).

4.2 Descriptive analysis of demographics

Ten categories of demographic information were elicited from the survey respondents. Each of the demographic details elicited using the research instrument is discussed in the subsections below.

4.2.1 Gender

As illustrated in Figure 4.1, 50% of the survey respondents are female while 50% were female. This implies that an equal number of females and males participated in this study.
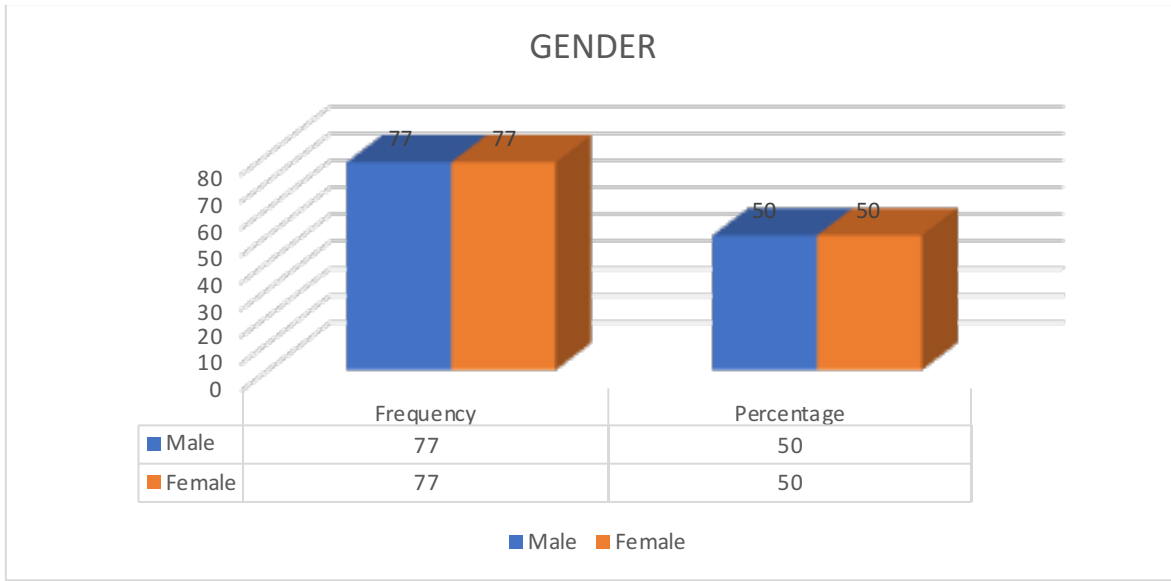
Figure 4.1 Respondent's gender

4.2.2 Racial background

The respondents to the research work were requested to specify their racial background. Figure 4.2 illustrates the descriptive analysis of the respondents' racial backgrounds.
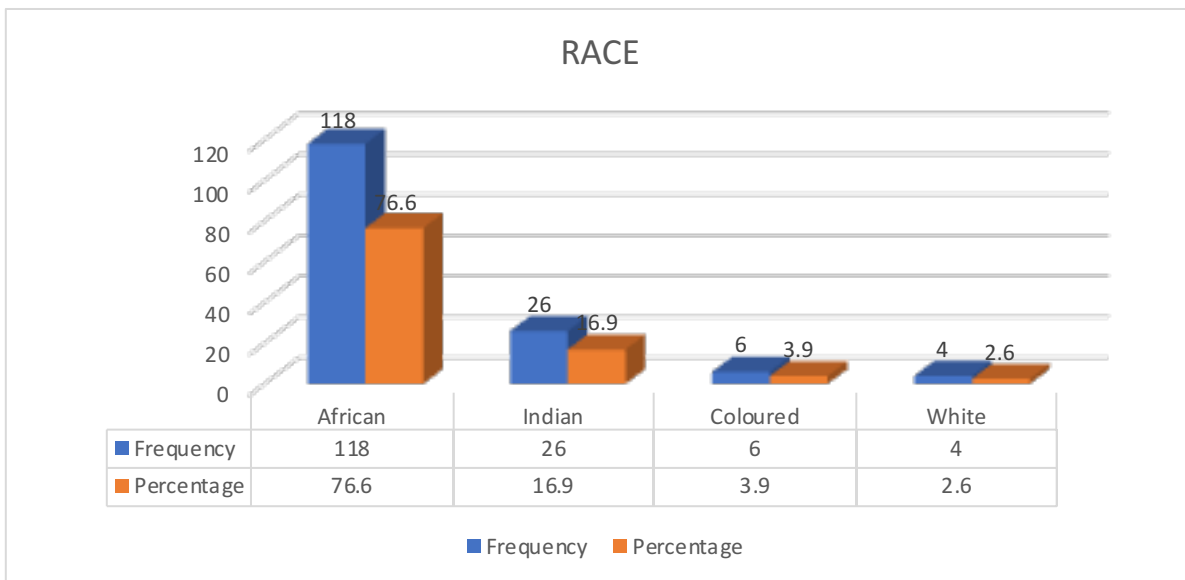
Figure 4.2 Respondents racial background

61

As shown in Figure 4.2, 76.6% of the total respondents were Africans, 16.9% were Indians, while 3.9% were Coloured and 2.6% of the total respondents were white. Based on the outcome of the statistical analysis, the majority of the study respondents with a total of 118 (76.6%) were Africans. The result of the statistical analysis is not surprising, because black Africans are the dominant racial group in South Africa.

4.2.3 Age

The respondents were requested to show their age category. The analysed data revealed that 5 (3.2%) were 20 years or below, 47 (30.5%) were 21- 30 years, while 66 (42.9%) were 31- 40 years, and 36 (23,4%) were older than 40 years. The respondent's age group is indicated in figure 4.3.

AGE

	20yrs or below	21 to 30 years	31 to 40 years	40yrs & over
Frequency	5	47	66	36
Percentage	3.2	30.5	42.9	23.4
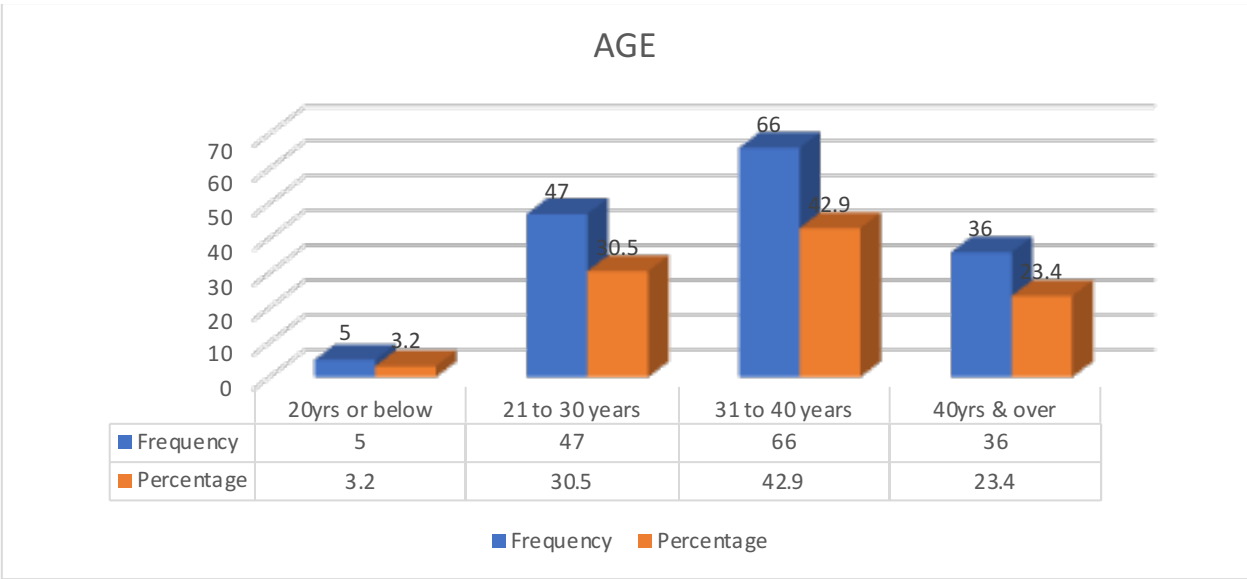
Figure 4.3 Respondents Age

4.2.4 Marital status

The survey respondents were requested to indicate their marital status. The data analysed revealed that 76 (49,4%) were single, 71 (46.1%) were married, while 5 (3.2%) were divorced, and 2 (1,3%) were widowed. The marital status of the respondent is indicated in figure 4.4.

MARITAL STATUS

	Single	Married	Divorced	Widowed
Frequency	76	71	5	2
Percentage	49.4	46.1	3.2	1.3

■ Frequency   ■ Percentage
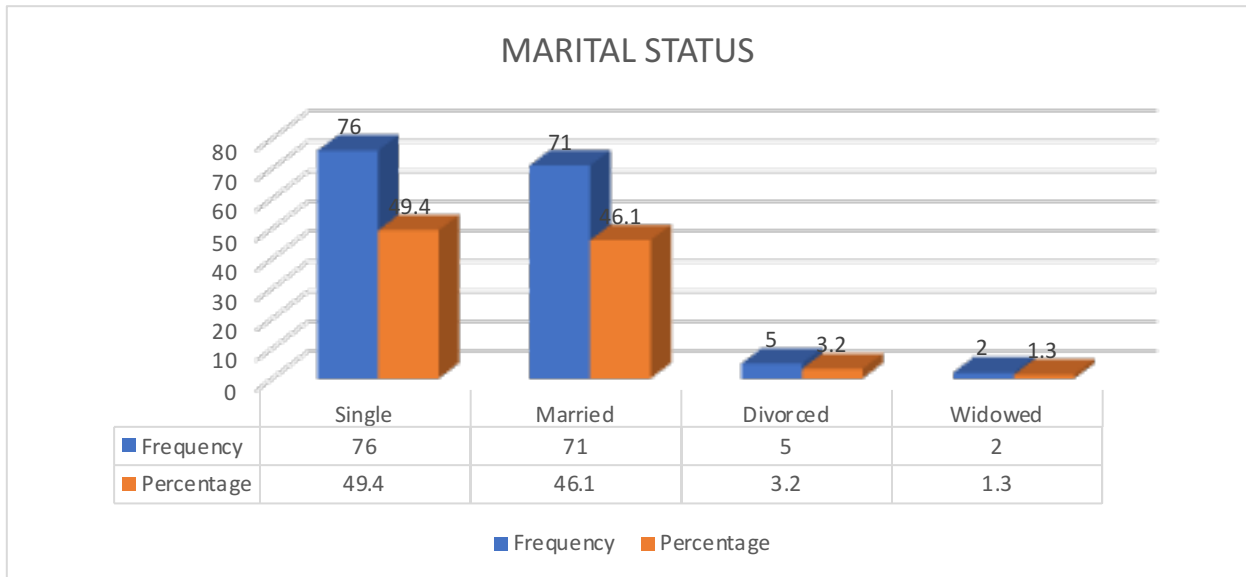
Figure 4.4 Respondents' marital status

4.2.5 Educational background

The survey respondents were requested to show their educational level, the analysed data revealed that 102(66.2%) hold matric certificates, 37(24%) hold a Diploma, while14(9.1%) holds bachelor's degree, and 1(0.6%) holds other above qualifications. According to the findings, most SMEs' owners simply hold a matriculation certificate. The data support assertion that most proprietors hold a matric diploma. The respondent's qualifications are indicated in Figure 4.5.
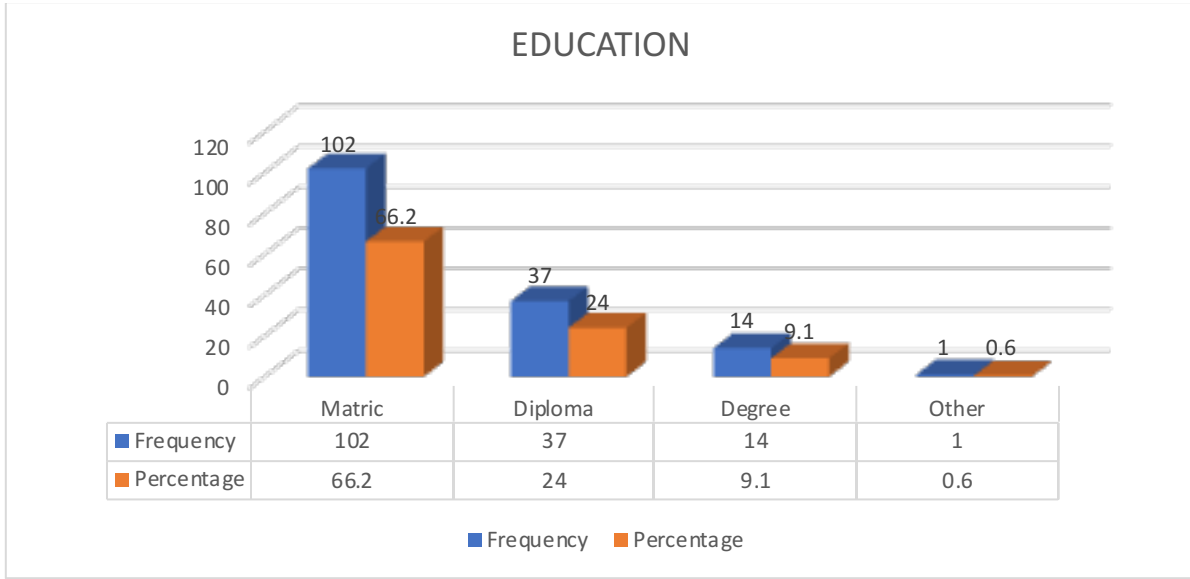
Figure 4.5 Respondents' Educational background

4.2.6 Work experience

The survey respondents were requested to show their work experience. Data analysed revealed that 54(35.1%) have experience of 1-5 years, 56(36,4%) have experience of 6-10 years, while 12 (7,8%) have experience of 11-15 years, and 32(20,8%) have experience of more than 15 years. According to the data, most of the owners had working experience before starting the present firmly.
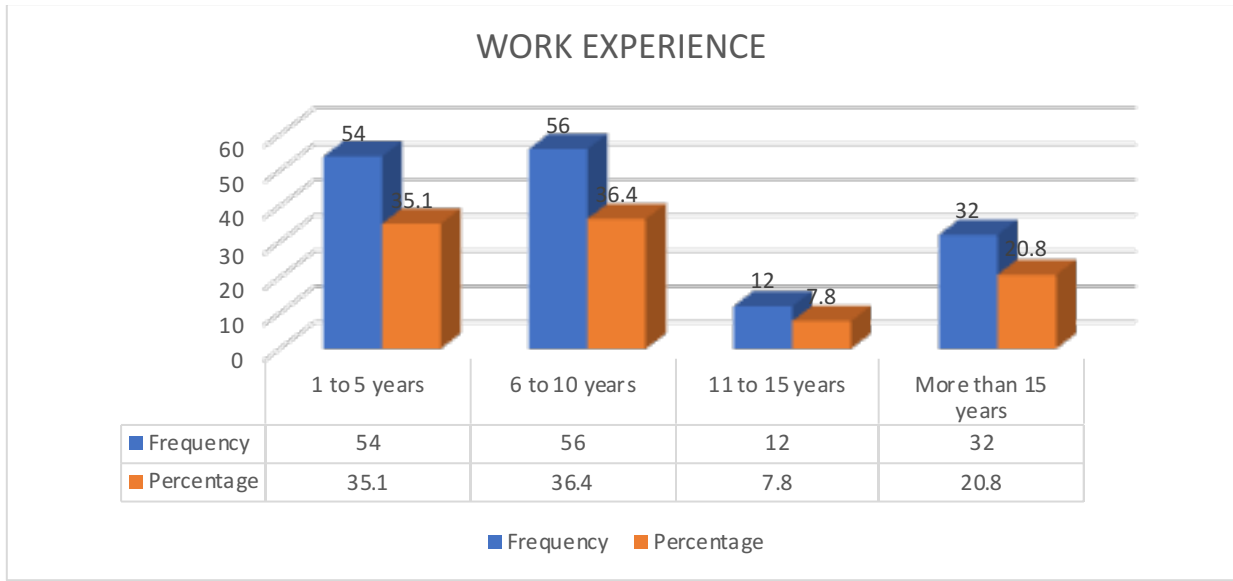
Figure 4.6 Respondents' work experience

4.2.7 Years in business

The survey respondents were requested to show their years in business, or number of years has been operating. The analysed data revealed that 11(7,1%) have been operating for a year, 98(63,6%) have been operating for 1 to 5 years, while 38(24,7%) operated for 6 to 10 years, and 7(4,5%) have been operating for more than 15 years. According to the findings, most SMEs have operated for less than five years, with only a handful having been in operation for more than ten years. Hence, the findings were related to the findings of Chenesai (2009), who stated that most SMEs encounter several difficulties that impede their growth. They also concluded that financial limitations prevent many SMEs from growing and expanding. The respondents' years in business are indicated in figure 4.7.

YEARS IN BUSINESS

	1 year	1 to 5 years	6 to 10 years	More than 15 years
Frequency	11	98	38	7
Percentage	7.1	63.6	24.7	4.5
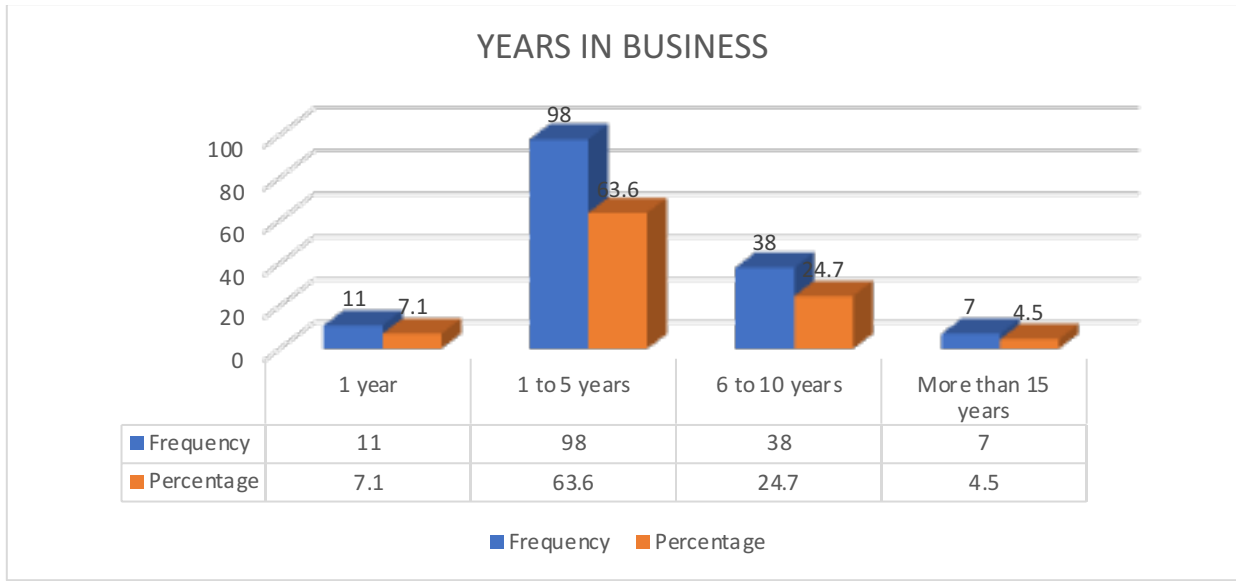
Figure 4.7 Respondents' year in business

4.2.8 Nature of manufacturing

Because the study solely focuses on SMEs in the manufacturing sector, survey respondents were requested to specify the type of their manufacturing. The analysed data revealed that 70(45,5%) were operating in the Food and beverage, 20(13%) were operating in the textiles, 14(9,1%) were operating in Furniture, while 10(6,5%) were operating in wood, paper & printing, and 40(26%) steel, detergent, craft & beadwork. The result revealed that majority of the manufacturing SMEs are operating in the food and beverage industry. The respondent's nature of manufacturing is indicated in Figure 4.8.

NATURE OF MANUFACTURING

	Food & beverage	Textiles	Furniture	Wood, paper & printing	Steel, detergent, craft& beadwork
■ Frequency	70	20	14	10	40
■ Frequency	45.5	13	9.1	6.5	26

■ Frequency ■ Frequency
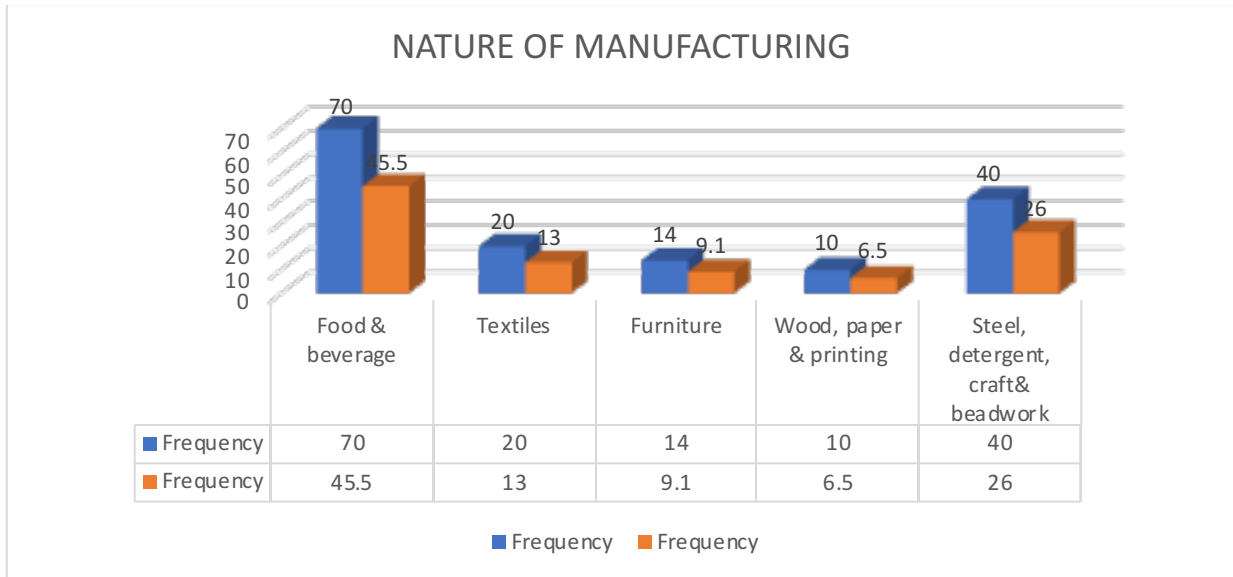
Figure 4.8 Respondents' nature of manufacturing

4.2.9 Business premise

The study respondents were requested to show their business premises. Figure 4.9 illustrates the type of business premises. The analysed data revealed that 41(26,6%) were operating in home space, while 105(68,2%) were operating in Leased space and 8(5,2%) were operating in other business premises. These findings indicate that majority of manufacturing SMEs operate in the leased space.
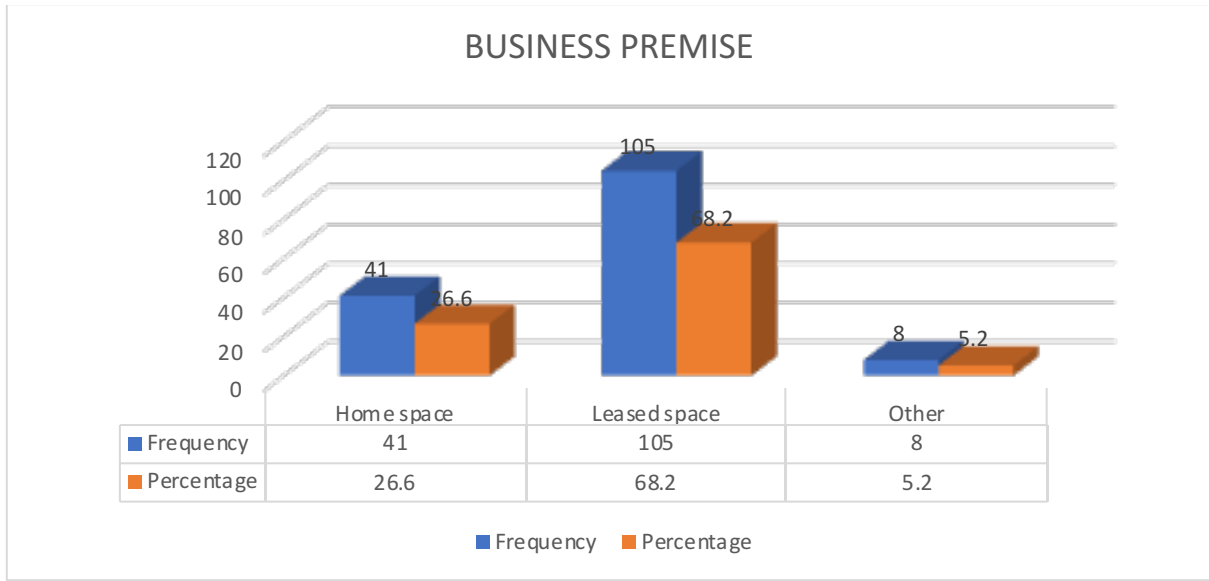
Figure 4.9 Respondents' business premise

4.2.10 Number of employees

The survey respondents were requested to show the employees' number. The analysed data revealed that 46(29,9%) had 1 to 4 employees, while 107(69,5%) had 5 to 20 employees, and 1(0,6%) had 21 to 30 employees. The results indicate that majority of SMEs owners employ 5 to 20 people. These findings were in line with Chenesai's (2009:128) findings, which found that most SMEs confront several difficulties that hinder their growth because their firms are still expanding and they do not have the financial capacity to pay for large numbers of staff, SMEs employ a limited number of people. The respondent's number of employees is illustrated in Figure 4.10.
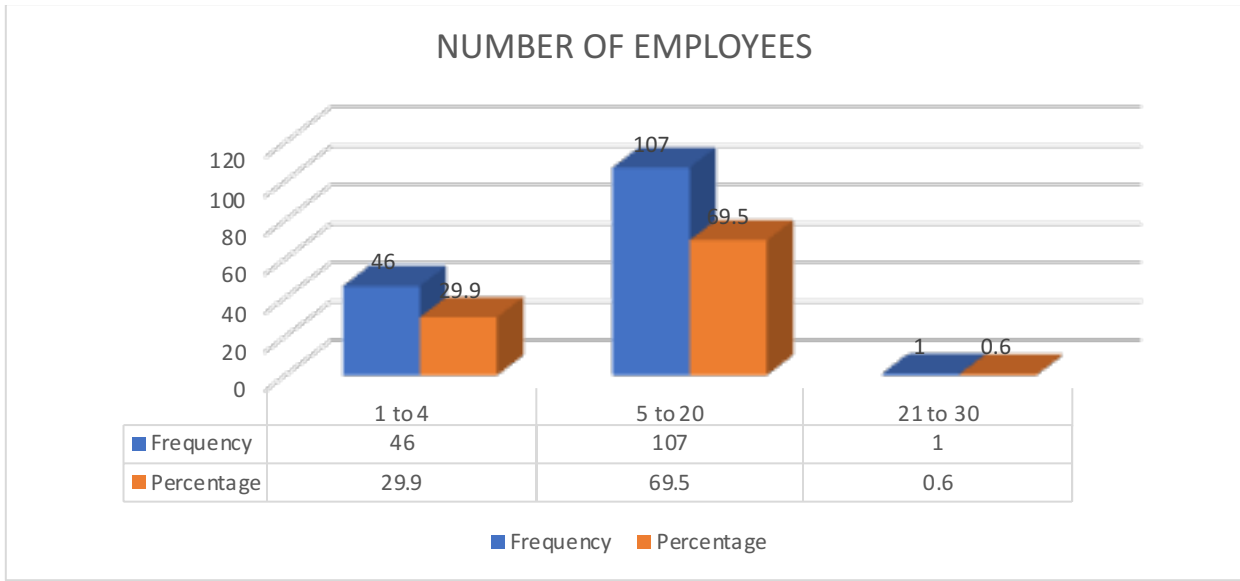
Figure 4.10 Respondents' number of employees

4.3 Descriptive statistics the measures of the research constructs

The respondents' responses on the scale were analysed using frequency distribution. The results are shown in Table 4.1.

Table 4.1 Analysis of survey responses of the respondents

1. Which capital sources do you prefer, please rank the following sources according to your firm's order of preference?				
Statements	Not important	Neutral	Important	Very important
Internal equity	32 (20.8%)	22 (14.3%)	19 (12.3%)	81 (52.6%)
External equity	13 (8.4%)	39 (25.3%)	80 (51.9%)	22 (14.3%)
Bank debt	14 (9.1%)	95 (61.7%)	25 (16.2%)	20 (13%)
Non-bank debt	75 (48.7%)	32 (20.8%)	29 (18.8%)	18 (11.7%)

STATEMENT 1: Which capital sources do you prefer, please rank the following sources according to your firm's order of preference

It was important to understand the respondent's preferred source of capital. This information was vital since it supplied the researcher with information that aided in the study's objectives being met. The results illustrated that most of the business owners find internal equity very important (52.6%), external equity was ranked as important by (51.9%). The findings of bank debt were neutral (61.7%), and non-bank debt was

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regarded as not important by (48.7%). Because the study's focus was on the effects of the capital structure on SME's, it was critical to establish which sort of capital each respondent favored before looking into the reasons for their preferences. The most preferred capital source was internal equity.

2. Why do you prefer the type of capital you have chosen in question 1?

	Strongly disagree	Disagree	Agree	Strongly agree
The cheapest form of capital	18 (11.7%)	38 (24.7%)	43 (27.9%)	55 (35.7%)
Easy to access	7 (4.5%)	34 (22.1%)	58 (37.7%)	55 (35.7%)
It was the only source available	10 (6.5%)	54 (35.1%)	31 (20.1%)	59 (38.3%)
Offer a higher return on investments	14 (9.1%)	45 (29.2%)	49 (31.8%)	46 (29.9%)

Internal equity was favored by most respondents because it is cheap and the most cost-effective type of financing. The respondents strongly agree with the following statements, The cheapest form of capital (35.7%), was the only source available (38.3%), while respondents agree to the following statements Easy to access (37.7%) and offer a higher return on investments (31.8%). Internal financing refers to a firm's

capital, which is mostly comprised of retained earnings and depreciation and is critical to the firm's survival and growth. SMEs are found to use more internal sources of finance, which has hampered their performance. Access to external or internal funding is a crucial driver of firm start-up, development and performance for SMEs (Eniola and Entebang, 2016:4).

3. When the business was established, which form of financing was used.				
	Strongly disagree	Disagree	Agree	Strongly agree
Retained earnings	7 (4.5%)	39 (25.3%)	73 (47.4%)	35 (22.7%)
Personal savings	5 (3.2%)	18 (11.7%)	89 (57.8%)	42 (27.3%)
Funds from family and Friends	3 (1.9%)	23 (14.9%)	69 (44.8%)	59 (38.3%)
Debt financing	16 (10.4%)	51 (33.1%)	68 (44.2%)	19 (12.3%)
Trade credit	24 (15.6%)	44 (28.6%)	66 (42.9%)	20 (13%)

From the statement "When the business was established, which form of financing was utilised" the results reflected by the respondents shows that they agree with the

components of financing "Retained earnings (47.4%), Personal savings (57.8%), Funds from family and Friends (44.8%), Debt financing (44.2%) and Trade credit (42.9%).

4. When making financing decisions for your business, which of the following do you consider important.				
Business performance	1 (0.6%)	6 (3.9%)	87 (56.5%)	60 (39%)
Close relationship with lender/ supplier	3 (1.9%)	15 (9.7%)	82 (53.2%)	54 (35.1%)
Attitude towards debt	8 (5.2%)	36 (23.4%)	93 (60.4%)	17 (11%)
Review procedures of getting credits	6 (3.9%)	40 (26%)	60 (39%)	48 (31.2%)
Formal business plan	8 (5.2%)	50 (32.5%)	96 (62.3%)	-

Decision-making in the business world must be reasonable and based on available information. This means that to make appropriate judgments, business managers and individuals must have a sufficient level of understanding of the relevant information. The following statements were agreed upon by the respondents: Business performance (56.5%), Close relationship with lender/ supplier (53.2%), Attitude towards debt (60.4%), Review procedures of getting credits (39%), and Formal business plan (62.3%).

5. Operational efficiency

It is easy to keep afloat in this industry	21 (13.6%)	105 (68.2%)	21 (13.6%)	7 (4.5%)
There is always a threat to the survival of the firm.	3 (1.9%)	7 (4.5%)	80 (51.9%)	64 (41.6%)
Social pressure could affect my business	3 (1.9%)	3 (1.9%)	81 (52.6%)	67 (43.5%)
I have limited resources.	3 (1.9%)	12 (7.8%)	81 (52.6%)	58 (37.7%)
My business performance is poor	10 (6.5%)	45 (29.2%)	39 (25.3%)	60 (39%)
There is high competition	7 (4.5%)	9 (5.8%)	51 (33.1%)	87 (56.5%)
My business is operating sufficiently.	10 (6.5%)	77 (50%)	51 (33.1%)	16 (10.4%)
Shortage of necessary equipment and machines.	17 (11%)	17 (11%)	82 (53.2%)	38 (24.7%)

Malfunction of necessary equipment and machines in the firm.	9 (5.8%)	25 (16.2%)	98 (63.6%)	22 (14.3%)
Lack of suppliers for the operation.	17 (11%)	39 (25.3%)	76 (49.4%)	22 (14.3%)
Standard operating procedures are supportive to employees in the firm.	8 (5.2%)	12 (7.8%)	94 (61%)	40 (26%)
Instruction for operations is important for employees in the firm.	4 (2.6%)	9 (5.8%)	78 (50.6%)	63 (40.9%)
Informal financing sources are major aspects of the firm's capital structure.	2 (1.3%)	23 (14.9%)	56 (36.4%)	73 (47.4%)
There are marketing opportunities.	9 (5.8%)	79 (51.3%)	51 (33.1%)	15 (9.7%)
I maintain a relationship with the suppliers.	6 (3.9%)	26 (16.9%)	92 (59.7%)	30 (19.5%)

Regarding the facts under **Operational efficiency**, Respondents disagreed with the statement, it is easy to stay afloat in this industry (68.2 %) but agreed with the following statements: There is always a threat to the firm's survival (51.9 %), Social pressure could affect my business (52.6 %), I have limited resources (52.6 %), and strongly agree on the following facts: My business performance is poor (39%) and there is high competition (56.5%). Some of the respondents disagreed with the statement My

business is operating sufficiently (50%). While they agreed with the following statements: the shortage of necessary equipment and machines (53.2%), malfunction of necessary equipment and machines in the firm (63.6%), Lack of suppliers for the operation (49.4%), Standard operating procedures are supportive to employees in the firm (61 %), and instruction for operations is important to employees in the firm (50.6 %), and they strongly agree with the statement: Informal financing sources are major aspects of the firm's capital structure (47.4 %). The respondents (51.3 %) disagreed with the statement, there are marketing opportunities, but agreed with the fact, I maintain a relationship with the suppliers" (59.7%).

6. Access to finance for SMEs				
Statements	**Strongly disagree**	**Disagree**	**Agree**	**Strongly Agree**
At the commencement of the firm, it was stress-free to secure financing.	35 (22.7%)	76 (49.4%)	37 (24%)	6 (3.9%)
I prefer internal/ retained earnings sources of financing.	16 (10.4%)	15 (9.7%)	68 (44.2%)	55 (35.7%)
I prefer external sources of financing.	14 (9.1%)	72 (46.8%)	51 (33.1%)	17 (11%)

Statement				
The relationship between the business owner/manager and the bank results in advantageous credit access.	17 (11%)	57 (37%)	44 (28.6%)	36 (23.4%)
My experience reduces asymmetric information between the firm and external investors.	15 (9.7)	76 (49.4%)	49 (31.8%)	14 (9.1%)
There are wealthy investments.	25 (16.2%)	99 (64.3%)	22 (14.3%)	8 (5.2%)
At the establishment of the firm, I was able to borrow money from banks.	37 (24%)	51 (33.1%)	51 (33.1%)	15 (9.7%)
At the establishment of the firm, I borrowed the money from family and friends.	12 (7.8%)	27 (17.5%)	53 (34.4%)	62 (40.3%)
Purchased the assets of the business on credits.	20 (13%)	32 (20.8%)	68 (44.2%)	34 (22.1%)
I prepare financial statements and measure the performance of the business.	15 (9.7%)	72 (46.8%)	31 (20.1%)	36 (23.4%)
I did not apply for a loan.	12 (7.8%)	87 (56.5%)	42 (27.3%)	13 (8.4%)

I prepare budgets and forecasts.	10 (6.5%)	48 (31.2%)	47 (30.5%)	49 (31.8%)
I prepare financial plans for the business.	9 (5.8%)	25 (16.2%)	40 (26%)	80 (51.9%)

Regarding the facts under **Access to finance for SMEs**, the respondents disagreed with the statement; At the commencement of the firm, it was easy to secure finances (49.4%) and agree with the fact I prefer internal/ retained earnings sources of financing (44.2%). The following statements were disagreed upon by responders; I prefer external sources of financing (46.8%), The relationship between the business manager/owner and the bank results in advantageous credit access (37%), My experience decreases asymmetric information between external investors (49.4%) and the firm. There are wealthy investments (64.3%) and at the establishment of the firm, I was able to borrow money from banks (33.1%). Whereas respondents strongly agree with the statement; At the establishment of the firm, I borrowed the money from family and friends (40.3%) and agreed with Purchased the assets of the business on credits (44.2%). The respondents disagreed with the following statements: I prepare financial statements and measure the performance of the business (46.8%), I did not apply for a loan (56.5%), I prepare budgets and forecasts (31.2%), and strongly agree with the following, I prepare financial plans for the business (51.9%).

7. The capital structure on the operational efficiency

I have access to any type of finance as a business owner.	25 (16.2%)	81 (52.6%)	38 (24.7%)	10 (6.5%)

I have financing challenges as the owner of the business.	8 (5.2%)	17 (11%)	47 (30.5%)	82 (53.2%)
Capital structure has no significant effects on return on assets in the manufacturing business.	16 (10.4%)	80 (51.9%)	21 (13.6%)	37 (24%)
Capital structure has no significant effects on the sales growth of manufacturing firms.	7 (4.5%)	11 (7.1%)	82 (53.2%)	54 (35.1%)
Factor that influences the capital structure: The age of the business	7 (4.5%)	6 (3.9%)	61 (39.6%)	80 (51.9%)
Factor that influences the capital structure: The size of the business	5 (3.2%)	10 (6.5%)	59 (38.3%)	80 (51.9%)
Factor that influences the capital structure: Profitability of the business	6 (3.9%)	4 (2.6%)	56 (36.4%)	88 (57.1)
Factor that influences the capital structure: The Asset's structure of the business.	6 (3.9%)	20 (13%)	80 (51.9%)	48 (31.2%)
Informal financing sources are major aspects of the firm's capital structure.	5 (3.2%)	23 (14.9%)	77 (50%)	49 (31.8%)

In my business, we do not use an external source of funding.	12 (7.8%)	75 (48.7%)	35 (22.7%)	32 (20.8%)
For my firm to expand and survive, I will consider giving up a percentage of ownership.	5 (3.2%)	18 (11.7%)	57 (37%)	74 (48.1%)
I am aware of funding opportunities.	26 (16.9%)	81 (52.6%)	31 (20.1%)	16 (10.4%)

Regarding the facts under **the capital structure on the operational efficiency**, majority of the respondents disagree with the statement, I have access to any type of finance as a business owner (52.6%) and strongly agree with the fact; I have financing challenges as the owner of the business (53.2%). Meanwhile, they disagree with the statement; Capital structure has no substantial effects on return on assets in the manufacturing business (51.9%) and they agree with the statement; Capital structure has no major effects on the sales growth of manufacturing organizations (53.2%). Respondents strongly agree with the following statements: Factor that impacts the capital structure: The age of the business (51.9%), Factor that impacts the capital structure: The size of the business (51.9%), Factor that impacts the capital structure: Profitability of the business (57.1) and agrees with the statement; Factor that impacts the capital structure: The Asset's structure of the business (51.9%). The respondents agree with the statement; Informal financing sources are major aspects of the firm's capital structure (50%) and disagree with the fact that in my business, we do not use an external source of funding (48.7%). However, the respondents strongly agreed with the statement; For my firm to expand and survive, I will consider giving up a percentage of ownership (48.1%) and disagree with the statement

I am aware of funding opportunities (52.6%).

Statements	Increase more than 10%	Increase not more than 10%	No change	Decrease more than 10%	Decrease not more than 10%
From the establishment of the firm till now, how the firm has managed its profit.	27 (17.5%)	86 (55.8%)	24 (15.6%)	16 (10.4%)	1 (0.6%)
In terms of assets, has the firm been able to purchase any additional assets How much is the difference in the assets register?	41 (26.6%)	29 (18.8%)	69 (44.8%)	11 (7.1%)	4 (2.6%)
As the owner of the business, how do you foresee the growth of your business?	110 (71.4%)	9 (5.8%)	24 (15.6%)	8 (5.2%)	3 (1.9%)

How can you classify your business's current state, in terms of growth?	50 (32.5%)	50 (32.5%)	35 (22.7%)	14 (9.1%)	5 (3.2%)

How can you classify your business's current state, regarding growth?

The respondents were requested to reflect on the provided statements that best reflect the choice and the experience in the industry. On the following statement the respondents reflected that they were an increase of not more than 10% on the statement; From the establishment of the firm till now, how the firm has managed its profit (55.8%). On the following statement the respondents reflected no change; In terms of assets, has the firm been able to purchase any additional assets, how much is the difference in the assets register (44.8%). The response was positive on the following statement, As the owner of the business, how do you foresee the growth of your business (71.4%) respondents reflected they foresee an increase of more than 10%. In terms of the statement, how can you classify the current state of your business, considering growth, how can you classify the current state of your business, considering growth (32.5%), the result illustrated that the growth has increased with more than 10%.

4.4 Analysis of research questions and objectives

There were three research questions and objectives formulated. These research objectives and questions were expressed in such a manner that the achievement of a research objective propels the research question to be concurrently answered. Inferential statistics like Pearson's correlation and regression were used to achieve the research

objectives and answered the research questions. The statistical analysis of the research questions and objectives are presented below.

4.4.1 Research question one

Research question one was formulated to create the relationship between the capital structure of SMEs and SMEs access to finance. The outcome of the Pearson's correlation coefficient is shown in Table 4.2 below.

Table 4.2 Correlation between SMEs access to finance and the capital structure of SMEs

Construct A	Construct B	Pearson's correlation I	p -value
Access to finance	capital structure	0.559**	<.0005

The results of the Pearson's correlation coefficient illustrated in table 4,2 establish a statistically substantial relationship between capital structure and access to finance manufacturing SMEs at ($r = 0.559$, $P < 0.0005$). The positive correlation indicates a relationship between construct A and construct B.

The study by Brixiová, Kangaye, and Yogo (2020:177) on finance access among SMEs and job creation highlighted that SMEs with formal financing generate more jobs than those without, with employment in firms with more inexpensive and broader loans expanding at the highest rate. Finance access has a larger influence on manufacturing businesses than on service firms, suggesting that sectoral targeting of finance might be a strategy to encourage industrialization. However, Fowowe (2017:6) found that firms that

are not credit limited expand at a quicker rate than firms that are limited to funding. These findings strongly suggest that funding is critical for firm growth, and they justify the numerous policies and activities being implemented to increase credit accessible to African businesses.

According to the study of Wiagustini, Ramantha, Sedana, and Rahyuda (2017:122), In both established and emerging nations, SMEs represent the engine of long-term economic growth. Gaining sufficient access to external sources of funding is a crucial success element for entrepreneurial SMEs. Although, it is important to keep in mind that the great majority of SMEs rely on internal funding, such as contributions from family, friends and owners, which is sometimes inadequate for SMEs to expand and survive (Sitharam and Hoque, 2016:278). According to the empirical results by Fatoki and Asah (2012:170), The findings show that business and entrepreneurial qualities influence SMEs' ability to get loan financing. The report suggests that SMEs owners/managers prepare for investment by putting together collateral and attending seminars and training programs to strengthen their management skills.

As a result, we can conclude that to obtain financing from financial institutions, owners of small and medium-sized manufacturing businesses must have specific knowledge about funding options and collateral.

A regression analysis was further carried out to create the level of influence between the two constructs. The result of the linear regression is showcased in Table 4.3.

Table 4.3 Linear regression

Variables in the equation	B	Beta	t	p-value	R^2	F	df	p-value
Constant	16.599		7.067	<.0005				
Access to finance	.566	.559	8.305	<.0005	.312	68.979	1; 152	<.0005

a. DV – Capital structure

b. Predictor – Access to finance

The results of the regression analysis summarized in table 4,3 indicate R^2 value of 0.312 which suggest that access to finance accounts for 31.2% of the variance in capital structure. The R^2 value shows how much of the total difference the dependent variable (capital structure) can be described by the independent variable (Access to finance). In this case, there is a substantial linear link between capital structure and access to finance, $F (1;152) = 68.979$; $P < 0.0005$. $P < 0.0005$ is less than 0,05 and indicate that the independent variable (Access to finance) considerably predicts dependent variable (Capital structure), B = 0, 559; $P < 0.0005$.

4.4.2 Research question two

Research question two was expressed to establish the influence of access to finance on the operational efficiency of SMEs. Table 4.4 illustrate the outcome of the Pearson correlation coefficient directed to create the extent of the connection between the independent and dependent variables.

Table 4.4 Correlation between operational efficiency of SMEs and access to finance

Construct A	Construct B	Pearson's correlation I	p -value
Access to finance	Operational efficiency	0.031	>.05

The results of the Pearson's correlation coefficient illustrated in table 4.4, illustrated that there is no connection between operational efficiency of SMSME and access to finance at (r = 0.031, P > .05). The variables indicate that manufacturing SMEs in Pietermaritzburg conduct their businesses differently compared to other SMEs in other parts of the world, hence there is no relationship between the variables.

According to a study by Muriithi (2017:41), most successful firms had well-developed human resource capacities. Such firms also witness good growth because of capable and encouraged personnel, leading to high production and the enterprises' long-term viability and survival. Unfortunately, insufficient human resource competencies and capabilities have been recognized as a key challenge for SMEs in many developing countries. It is noteworthy that most African governments give little attention to the well-being of SMEs

and do not provide the infrastructure to support their growth (Muriithi, 2017:42). The study discovered that financial system in Africa are not only shallow, minuscule and costly but also possess a very limited reach, reaching just a small portion of the entire population. Consequently, many SMEs are forced to carry out their self-financing or rely on relatives and colleagues and relatives for money (Muriithi, 2017:43).

Osano and Languitone (2016:1) carried out a study about factors influencing financial access by SMEs, the conclusions of the research were significant because they would allow the government to develop suitable regulations, initiatives, and plans to increase SMEs' access to capital. However, Mafini and Loury-okoumba (2018:1), revealed adoption of mobile credit improved operational efficiency in debt collection and shareholder returns. Overall, it is widely admitted that technology is one of the most significant techniques for enhancing operational efficiency. As a result, of this research work, the usage of mobile credit has improved revenue-generating efficiency and debt collection.

The study by Bongomin, Ntayi, Munene, and Malinga (2017:520), findings show a positive and substantial moderating influence of financial literacy in the link between growth of SMEs and access to finance in developing economies. Furthermore, access to capital and financial literacy also have an important and positive impact on SMEs' growth in developing economies. These findings lend acceptance of the view that financing is very significant for the growth of a firm and explain many initiatives and measures put in place to make more finance available for African firms (Fowowe, 2017:520).

The statistical results of the research work show that there is no link between operational efficiency and access to finance, whereas other studies conducted by other researchers show a positive link between the variables, implying that manufacturing SMEs in Pietermaritzburg operate and have adopted different business policies.

A regression analysis was further carried out to create the level of influence between the two constructs. The result of the linear regression is showcased in Table 4.5.

Table 4.5 Linear regression

Variables in the equation	B	Beta	t	p-value	R^2	F	df	p-value
Constant	43.563		18.336	> .05				
Access to finance	.026	.031	.381	> .05	.001	0.145	1; 152	> .05

    a. DV – Operational efficiency

    b. Predictor – Finance Access

The results of the regression analysis summarized in table 4,5 indicate R^2 value of .001 which suggests that access to finance accounts for 0.1% of the variance in operational efficiency and they are no significant linear relationship between operational efficiency, F (1.152) = 0.145; P > .05. The independent variable, access to finance is not a predictor of operational efficiency, B = 031, P > .05 because the p-value is greater than >.05.

4.4.3 Research question three

Research question three was coined to determine the effects of capital structure on the operational efficiency of SMSME in PMB. Table 4.6 showcases the outcome of the Pearson's correlation coefficient carried out to determine the link between the two variables.

Table 4.6 Correlation between operational efficiency of SMEs and capital structure

Construct A	Construct B	Pearson's correlation I	p -value
Capital structure	Operational efficiency	0.324**	<.0005

The results of the Pearson's correlation coefficient showed in table 4.6 establish a statistically substantial link between capital structure and operational efficiency in manufacturing SMEs (r = 0.324, P < 0.0005. The positive correlation indicates a direct relationship between the two constructs.

The study by Musah (2018:21), on the influence of capital structure profitability of commercial banks, the findings demonstrates that commercial banks' dependence on short-term financing (deposits) decreases profits and that banks should change their financing focus away from deposits and toward alternative sources. The findings suggest that companies should select the proper balance of short and long-term debt to improve bank profitability. Ganiyu, Adelopo, Rodionova, and Samuel (2019:31), The major findings demonstrate that capital structure and business performance have a statistically significant relationship, especially when debt financing is engaged substantially. However,

because firms relied on unsustainable debt financing, the study revealed evidence of a non-monotonic relationship between firm performance and capital structure which had an impact on firm performance.

These results are reliable with the findings of a previous empirical study conducted by (Le and Phan, 2017:710) which showed that firm performance and capital structure have a positive relationship. Some of the researchers found different results, the study by Mukaddam and Sibindi (2020:118) revealed a correlation between financial performance and capital structure that was negative. As a result, it can be determined that the profitability of retail businesses in South Africa is not related to debt amount they have accrued. These findings were in line with those of others who discovered negative correlations between financial performance and capital structure (Nassar 2016:1). All debt ratios exhibit a substantial adverse link with performance of firm.

Usman (2019:47), the study's findings demonstrate both long-term and short-term debts have no substantial influence on the financial performance of firms. In addition, it was also discovered that Equity has an important influence on the financial performance of firms. Instead of making capital structure decisions based on broad generalizations, the research advised that businesses examine closely and compare the cost of getting a particular source of capital to the value that may be gained from it when deciding on the composition of their capital structure. This will assist managers in ensuring a profit at the end of the day.

This finding contradicts the findings of most research done in developed countries, which suggest that firm performance and capital structure (operational efficiency) have a positive relationship.

A regression analysis was carried out to create the level of influence between the two constructs. The result of the linear regression is showcased in Table 4.7.

Table 4.7 Linear regression

Variables in the equation	B	Beta	t	p-value	R^2	F	df	p-value
Constant	43.563		14.839	<.0005				
Capital structure	.026	.324	4.220	<.0005	.105	17.806	1; 152	<.0005

a. DV – Operational efficiency

b. Predictor – Capital structure

The regression analysis results summarized in the table 4,7 indicate R^2 value of .105 which suggests that capital structure accounts for 10.5% of the variance in operational efficiency. The R^2 value shows how much of the total variation the dependent variable (operational efficiency) can be described by the independent variable (capital structure). In this case, there is substantial linear connection between operational efficiency and capital structure, F (1.152) = 17.806; P < 0.0005. P < 0.0005 is less than the independent variable (operational efficiency), B = 0.324, P < 0.0005.

4.5 Chapter summary

This chapter focuses on the analysis and explanation of graphically displayed data. The outcomes from the questionnaires completed by SMEs' owners/managers were defined using reliability and descriptive statistics. Tables, graphs and figures were utilized to show data from the respondents' responses. The analysis is shown in tables and graphs per section. Closed-ended questions were applied in the study to generate more subjective evidence.

The next chapter gives overall study assumptions based on the aims and objectives of research. It will also incorporate the researcher's recommendations.

5 CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

The conclusions of the study are drawn in this chapter. It examines the study's findings as well as its addition to the literature. This chapter explains how the proposed study's aims and objectives were met. It includes conclusions related to the findings and practice recommendations based on the objectives. The current study's limitations are highlighted, and areas for further research are reviewed.

5.2 Overview of the study

The research work aims to investigate the capital structure on the operational efficiency of SMSME in Pietermaritzburg (PMB).

To achieve the aim of the study, the objectives listed below will be dealt with.

i. To evaluate the difficulties that SMSME in Pietermaritzburg PMB face in accessing financial aid from financial institutions.

ii. To examine the factors that influence the operational efficiency of SMSME in Pietermaritzburg PMB.

iii. To determine the effects of capital structure on the operational efficiency of SMSME in Pietermaritzburg PMB.

The literature review looked at the causes of influence to the capital structure, the challenges that SMEs face in manufacturing sector, access to financial support for SMEs, and internal and external financing sources.

The chapter also reviewed the relevant theories related to the study and empirical studies associated with the influence of capital structure on the operational efficiency of SMSME. The empirical studies were local, national, and worldwide.

The research methodology outlined an overview of the sample selection, research design and data collection instrument used by the researcher to achieve the research objectives. The research design was quantitative and cross-sectional.

The research was conducted using a survey questionnaire that focused on the challenges surrounding the research objectives. The sample size comprised 148 respondents in the Pietermaritzburg. Non-random sampling was used because it was more convenient to get the required sample.

The data were analysed through a statistical package for social science (SPSS). The results were presented and interpreted according to the objectives of the research work and discussed concerning the respective literature on the objectives of the study. The results were presented in tables, graphs and divided into different sections to meet the main goal.

5.3 Presentation of conclusions based on the finding

The section below presents a brief discussion on the achievement of the research objectives:

5.3.1 To evaluate the difficulties that SMSME in Pietermaritzburg PMB face in accessing financial aid from financial institutions.

The researcher aimed to evaluate the difficulties that SMSME in PMB encounter in accessing financial support from financial institutions. This objective was discussed by the literature review in chapter two and achieved by factor analysis and the descriptive statistics in chapter four. To achieve this objective, chapter two looked at the literature on

the challenges that SMEs have in obtaining financial support from financial institutions. Although many empirical studies (Mohammad and Gharaibeh, 2015; Sibanda, Hove-Sibanda and Shava, 2018; Sitharam Hoque, 2016; Eniola and Entebang, 2015; Fatoki, 2014) investigated factors influencing the access to finance by SMEs, no study concentrated on manufacturing SMEs in Pietermaritzburg.

In accordance to the findings of this research work, majority of manufacturing SMEs lack funding access as a result of limitation to information. Some of the most notable findings suggested that SMEs lack assets that may be applied as loan collateral. Internal sources of funding are preferred by the majority of SMEs since they are easier to get and less expensive. Majority of SMEs depend on internal capital like contributions from family members, owners and friends that is unsufficient to grow and survive.

Financial access of the firm (r = 0.559, P < 0.0005) indicates a significant link with the capital structure of the firm. Empirical studies (Osano and Languitone, 2016; Fatoki and Asah, 2011) investigated factors influencing the access to finance by SMEs, even though the study included all sectors, the findings were consistent with those of this study.

5.3.2 To examine the factors that affect the operational efficiency of SMSME in Pietermaritzburg PMB.

Chapter two explained that operational efficiency is a statistic which measures the efficiency of gained profit as a function of operating expenses. The more profitable a firm or investment is, the more efficient its operations are. This is because the firm may create more money or returns for the same or lower cost than a competitor (Hayes, 2021). The chapter also discussed how manufacturing SMEs in Pietermaritzburg might access financing. Most SME owners prefer internal sources of finance, according to the findings. The firm's internally produced profit is referred to as earnings. Internal equity was favored by most respondents because it is cheap and the most cost-effective type of financing. These results were consistent with the study of Nawi (2015:13), which concluded that

small businesses prefer to employ internal equity and will only move on to the next available source after exhausting internal equity. This study also demonstrates that SMEs are risk cautious, as they always choose to use the least expensive source of funding. These results were constant with the research work of (Alghamdi *et al.*2018:148) that supported the theory of pecking order when the business owners support before they take any decision. The results of research work indicated that they are no link between access to finance and operational efficiency.

5.3.3 To determine the effects of capital structure on the operational efficiency of SMSMEs in Pietermaritzburg PMB.

The aim was to investigate how efficient SMSMEs in Pietermaritzburg were. The literature review in chapter two addressed this objective, and descriptive statistics and factor analysis in chapter four help in achieving it. To accomplish this objective, the second chapter looked at the literature on the influence of capital structure on the operational efficiency of SMSMEs.

Several empirical studies (Pattweekongka and Nopompech, 2014; Zabri, 2014; Nassar, 2016; Alipour, Mohammadi, and Derakhshan, 2015; Rao, Kumar, and Madhavan, 2019; Mukaddam and Sibindi, 2020) investigated aspects that affect capital structure on financial performance. While no studies have examined the impact of capital structure on the operational efficiency of manufacturing SMEs, the current study did.

The findings show that the firms' capital structure is influenced by the business' size, its age, its profitability, and its assets. The longer a business has been around and the larger it is, the more it indicates that it can withstand difficult economic times. Additionally, by remaining in business, a business may demonstrate that it does not engage in opportunistic behavior (Fatoki and Asah, 2010:171). According to the study, Fatoki and Asah (2010:171) larger firms are more diverse and fail less frequently, thus size may be used as an inverse proxy for the likelihood of bankruptcy. Profitable businesses may utilize

their profits to finance investment possibilities, reducing the requirement for external financing. The profitability of the business may influence the firm's capital structure (Gharaibeh, 2015:1). The assets structure of the firm was found to be the influence of capital structure. The capital structure and operational efficiency have a positive relationship. The findings were in line with those of prior investigations.

5.4 Recommendations for manufacturing SME's

This section emphases on recommendations to the Manufacturing SMEs sector in Pietermaritzburg as to how they can enhance the performance of their business.

The findings of this study show that, even though some government financing and support organizations have been there for some years, small businesses are still unaware of them, and, more crucially, those that are aware are underutilized. Specific seminars should be held to educate rural SME owners about available support services and/or agencies, what services they provide, how to contact them, and what they may gain by doing so. SME owners should be informed about the standards that banks consider when evaluating loan applications. This will give feedback to the SMEs, which may assist them in improving their areas of weakness. Other prospective banking sector reforms include initiatives to reduce application fees, which have been identified as one of the factors contributing to the prevalence of discouraged borrowers.

The findings also revealed that there is a gap of understanding when it comes to funding business activities. This was supported by many survey replies. Owners of Small business must possess a basic understanding of accounting and finance, as these are two of the most important aspects of a firm's functioning. Without a basic understanding of finance and accounting, businesspeople are prone to making hasty financial decisions that might be harmful to the firm. Most business owners are unable to recruit skilled individuals or hire personnel from professional bodies due to financial constraints, they must understand the fundamentals. These smaller business owners should take short courses given to

small business owners to increase their financial and accounting expertise. To reap the most advantage, the above-mentioned recommendations on access to financing must be combined with additional initiatives aimed at cultivating an entrepreneurial culture and advancing administrative simplicity.

Small business entrepreneurs should be encouraged to ensure that their business's start-up capitalization fulfills their demands and is sufficient to allow for startup and growth. SME owners should devote a greater percentage of their time to activities connected to obtaining financing at the commencement and all through the life of their business. SMEs owners should examine alternatives to the typical sources of funding utilized at startup and during the life of the business, such as shifting away from utilizing credit cards to fund the firm.

5.5 Implications

The study's findings have implications for financial institutions that lend to small businesses. Because of the rigorous lending standards, several SMEs are hesitant to approach financial institutions for funds. However, financial institutions could contemplate tailoring their lending policies to the specific needs of the firms, rather than assessing their creditworthiness merely based on prior performance. Other considerations, such as the feasibility of future business plans SMEs are encouraged to develop networks to exchange ideas and information. SME owners may create business relationships through networking, which can help their businesses to expand, or the firm's development prospects may be given more weight by financial institutions.

5.6 Limitation of the study

The sample was restricted to manufacturing SMEs located in Pietermaritzburg, KwaZulu-Natal. The research work was restricted to manufacturing SMEs in Pietermaritzburg; hence It is necessary to replicate the research in other regions of South Africa and in

different sectors in order and in other SMEs to determine whether the findings of the research work can be applied across the nations.

5.7 Suggestions for future research

The findings of this research work have identified principles which should serve as a foundation for future research. Some suggestions for future research are outlined below:

I. The current research focused solely on the manufacturing sector. As a result, this study suggests that future research should cover additional sectors to see if the capital structure of SMEs has an effect on operational efficiency.

II. Access to financing must be combined with additional initiatives aimed at cultivating an entrepreneurial culture and advancing administrative simplicity, future research should unravel the impacts of access to finance on the manufacturing sector and incorporate additional aspects, according to the study.

III. The research was quantitative. As a result, qualitative research is recommended so that the researcher can learn more about the views of SMEs owners in depth.

IV. The study advises future researchers in this field that they focus on the operational efficiency of SMEs because there have been few studies in this area.

V. To gain a better knowledge of SME's capital structure dynamics, comparative research of SMEs in different areas and nations is advised.

VI. The findings also revealed that there is a gap of understanding when it comes to funding business activities, It is suggested that research be conducted on the awareness of government assistance services that SMEs are unaware of.

5.8 Chapter summary

This chapter detailed how the study's objectives were achieved. The chapter concluded with suggestions based on the study's goals. The study's limitations were emphasized, and areas for future research work were identified. This research was a huge success by attaining its detailed aims and objectives.

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APPENDICES

Appendix A

LETTER OF INFORMATION

Title of the Research Study: The effects of capital structure on the operational efficiency of SMSME in Pietermaritzburg, South Africa.

Principal Investigator/s/researcher: Miss Nomfundo Kuhlekonke Minenhle Nxumalo, ND: Accounting, Btech: Taxation

Co-Investigator/s/supervisor/s: Dr. Odunayo Margret Olarewaju, Ph.D., CA(NIG), ACMA, CGMA, and Mr. B.T Ngiba, MBA.

Brief Introduction and Purpose of the Study: The small and medium-sized enterprises are the drivers of the economy in our country, it is very important to conduct studies that specifically concentrate on SMEs. The purpose of this study is to investigate the effects of capital structure and operational efficiency of SMSME in Pietermaritzburg (PMB).

Outline of the Procedures: The data will be collected electronically via Survey Monkey. Monkey survey strategy will be used for collecting data from the sample of participants:

SMEs owner or a suitable representative of the business owner at their business. The link to the survey monkey will be sent to the study respondents via email and social media for ease of completion. Monkey survey will be employed for effectiveness and efficiency purposes. The total number of questionnaires to be distributed by the researcher is 148. The researcher estimated the time to complete the questionnaire as 15 minutes. A letter of information with the questionnaire outlining the purpose of the analysis will be attached, and confidentiality and anonymity will be ensured. Which explains and gives a clear introduction of the questions to the respondent. Distributed questionnaires will be written in English and accompanied by a consent letter, which explains and give a clear introduction of the questions to the respondent. After one week of the distribution of the questionnaire, a letter of reminder will be sent to the participants. The researcher will provide responses to questions the respondents had asked.

Risks or Discomforts to the Participant: There is minimal risk for participants or discomforts to you.

Benefits: The findings of this study will benefit both small manufacturing businesses in terms of how to manage their finances and operate efficiently. The benefit of the researcher will be research publications in both conference proceedings and accredited journals.

Reason/s why the Participant May Be Withdrawn from the Study: There will be no adverse consequences for the participants should you choose to withdraw from the study at any time**.**

Remuneration: You will not receive any remuneration for participating in the study.

Costs of the Study: You will not be expected to cover any costs towards the study.

Confidentiality: All information would remain confidential. The information will not be used for any other purpose other than this research study. There will be no identifying information mentioned in the write-up of the academic paper.

Research-related Injury: There will not be any compensation for any research-related injury because it is very unlikely that there will be an injury that occurred while answering the questionnaire.

Persons to Contact in the Event of Any Problems or
Queries:

Please contact me on 062 013 9268 and my supervisor Dr. Odunayo Margret Olarewaju on 031 373 5632 or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the Director: Research and Postgraduate support, Dr. Linda Z. Linganiso on 031 373 2577 or researchdirector@dut.ac.za .

General:

Potential participants must be assured that participation is voluntary and the approximate number of participants to be included should be disclosed. A copy of the information letter should be issued to participants. The information letter and consent form must be translated and provided in the primary spoken language of the research population e.g. isiZulu.

Once again, your participation in this study is voluntary. You can opt not to participate or withdraw from the study at any time without adverse consequences. Confidentiality and anonymity of records identifying you as a participant will be maintained by the researcher and the university.

Thank you for participating.

Your assistance is greatly appreciated.

Miss N.K.M Nxumalo

Student No. 21606405

Contact no. 062 013 926

Appendix B

CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, **Miss Nomfundo Nxumalo**, about the nature, conduct, benefits, and risks of this study.

- I have also read and understood the above-written information (Participant Information) regarding the study.

- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials, and diagnosis will be anonymously processed into a study report.

- In view of the requirements of the research, I agree that the data collected during this study can be processed in a computerised system by the researcher.

- I may, at any stage, without prejudice, withdraw my consent and participation in the study.

- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.

- I understand that significant new findings developed during this research which may relate to my participation will be made available to me upon request.

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By clicking on the checkbox, I give my consent voluntarily to participate in this study

Appendix C

<u>**QUESTIONNAIRE**</u>

Topic: The Effects of Capital Structure on the Operational Efficiency of SMSME in Pietermaritzburg, South Africa.

SECTION A: DEMOGRAPHIC INFORMATION ON THE BUSINESS OWNER

Please mark 'X' in the box provided for answers applicable to you. (Only one answer should be given for each question).

1. Gender?

Male

Female

2. Racial Background?

African

Indian

Coloured

White

3. Age?

20 years or below

21 to 30 years

31 to 40 years

40 years and over

4. Marital status?

Single

Married

Divorced

Windowed

5. Educational background

Matric Certificate

Diploma

Degree

Master's Degree

PhD

Other (Specify):

6. Work Experience

1 to 5 years

6 to 10 years

11 to 15 years

More than 15 years

SECTION B: INFORMATION ON THE ENTERPRISE

1. Please, specify how many years your business has been operating?

1 year

1 – 5 years

6 – 10 years

Over 10 years

2. Nature of Manufacturing SMEs.

Food and Beverage

Textiles

Furniture

Wood, Paper, and Printing

Steel, detergents, and craft
and beadwork

3. What is your business premise?

Home space

Leased space

Other

4. Please, specify the total number of employees in your firm?

1 – 4

5 – 20

21 – 30

31 – 50

SECTION C: FINANCING OF THE FIRM

Please indicate the option that best suits your opinion with an 'X', in a box which you deem appropriate.

Strongly disagree   =   1

Disagree   =   2

Agree   =   3

Strongly agree　　　=　　4

1. Which capital sources do you prefer, please rank the following sources according to your firm's order of preference

	1	2	3	4
Internal equity				
External equity				
Bank debt				
Non-bank debt				
Other (specify)				

2. Why do you prefer the type of capital you have chosen in question 1?

	Strongly disagree	Disagree	Agree	Strongly agree
The cheapest form of capital				

Easy to access

It was the only source available

Offer a higher return on investments

3. When the business was established, which form of financing was utilised.

	Strongly Disagree	Disagree	Agree	Strongly agree
Retained earnings				
Personal savings				
Funds from family and Friends				
Debt financing				
Trade credit				

4. When making financing decisions for your business, which of the following do you consider as important.

	Strongly Disagree	Disagree	Agree	Strongly Agree
Business performance				
Close relationship with lender/ supplier				
Attitude towards debt				
Review procedures of getting credits				
Formal business plan				

SECTION D: CAPITAL STRUCTURE ON THE OPERATIONAL EFFICIENCY

Please indicate the option that best suits your opinion with an 'X', in a box that you deem appropriate.

Strongly disagree   =   1

Disagree   =   2

Agree   =   3

Strongly agree   =   4

No.	Statements	Strongly disagree	Disagree	Agree	Strongly agree
1.1	**Operational Efficiency**				
1.1.1	It is easy to keep afloat in this industry				
1.1.2	There is always a threat to the survival of the firm.				
1.1.3	Social pressure could affect my business				
1.1.4	I have limited resources.				
1.1.5	My business performance is poor				
1.1.6	Social pressure could affect my business				
1.1.7	There is high competition				

1.1.8   My business is operating sufficiently.

1.1.9   Shortage of necessary equipment and machines.

1.1.10 Malfunction of necessary equipment and machines in the firm.

1.1.11 Lack of suppliers for the operation.

1.1.12 Standard operating procedures are supportive to employees in the firm.

1.1.13 Instruction for operations is important for employees in the firm.

1.1.14 Informal financing sources are major aspects of the firm's capital structure.

1.1.15 There are marketing opportunities.

1.1.16 I maintain a relationship with the suppliers.

1.2 Access to Finance for SME's

1.2.1 At the start-up of the firm, it was easy to acquire financing.

1.2.2 I prefer internal/ retained earnings sources of financing.

1.2.3 I prefer external sources of financing.

1.2.4 The relationship between the business owner/manager and bank results in advantageous access to credit.

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1.2.5 My experience reduces asymmetric information between the firm and external investors.

1.2.6 There are wealthy investments.

1.2.7 At the establishment of the firm, I was able to borrow money from banks.

1.2.8 At the establishment of the firm, I borrowed the money from family and friends.

1.2.9 Purchased the assets of the business on credits.

1.2.10 I prepare financial statements and measure the performance of the business.

1.2.11 I did not apply for a loan.

1.2.12 I prepare budgets and forecasts.

1.2.13 I prepare financial plans for the business.

1.3	**The capital structure on the operational efficiency**

1.3.1 I have access to any type of finance as the business owner.

1.3.2 I have financing challenges as the owner of the business.

1.3.3 Capital structure has no significant effects on return on assets in the manufacturing business.

1.3.4 Capital structure has no significant effects on the sales growth of manufacturing firms.

1.3.5   Factors that influence the capital structure.

    1.3.5.1 The age of the business

    1.3.5.2 The size of the business

    1.3.5.3 Profitability of the business

    1.3.5.4 Assets structure of the business.

1.3.6   Informal financing sources are major aspects of the firm's capital structure.

1.3.7   The profit of the firm helped me to use internal funds.

1.3.8   In my business, we do not use external source of funding.

1.3.9   For my firm to expand and survive, I will consider giving up a percentage of ownership.

1.3.10 I am aware of funding opportunities.

1.4 Please tick the statement that best reflects your choice and your experience in the industry.

No.	Statements	Increase more than 10%	Increase not more than 10%	No change	Decrease more than 10%	Decrease not more than 10%
1.4.1	From the establishment of the firm till now, how the firm has managed its profit.					
1.4.2	In terms of assets, has the firm been					

able to purchase any additional assets How much is the difference in the assets register?

1.4.3 As the owner of the business, how do you foresee the growth of your business?

1.4.4 How can you classify your business's current state, in terms of growth?

1.5. Please indicate the guarantee used or not used by your firm for debt financing.

	Used	**Not used**
1. Inventory or Trade receivables		
2. Business equipment or Vehicle		
3. Business securities or deposits		
4. Business real estates		
5. Personal real estates		

1.6. If you have used government financing, please indicate the type of financing you have used or not used.

	Used	**Not used**
1. Loans		
2. Tax incentives		

3. Venture financing

4. Equity finance

5. Guarantee scheme

6. Grants

1.7. Should the firm need external funding, how much would a firm like to obtain?

R 20 000. 00

R 50 000.00

R 100 000.00

R 150 000.00

R 200 000.00

The end. Thank you for your co-operation

Appendix D

DUT
DURBAN UNIVERSITY OF TECHNOLOGY
INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE

FACULTY OF ACCOUNTING & INFORMATICS

Faculty Research Office
Durban University of Technology
Date 3 March 2021

Student: Nxumalo
Student Number: 21606405
Degree: Master of Accounting (Financial Accounting)
Email: 21606405@dut4life.ac.za
Supervisor: Dr. O.M Olarewaju

Dear Miss Nxumalo

ETHICAL APPROVAL: LEVEL 2
Your email correspondence in respect of the above refers.
Your proposal for Master of Accounting (Management Accounting), **'The effects of capital structure on the operational efficiency of small and medium-sized manufacturing enterprises in Pietermaritzburg, South Africa.'**

I am pleased to inform you that the Faculty Research Ethics Committee (FREC) following feedback from two reviewers has granted preliminary permission for you to conduct your research.

When ethics approval is granted:
You are required to present the letter at your research site(s) for permission to gather data. Please also note that your research instruments must be accompanied by the letter of information and the letter of consent for each participant, as per your research proposal.

This ethics clearance is valid from the date of provisional approval on this letter for one year. A student must apply for recertification 3 months before the date of this expiry.

Recertification is required every year until after corrections are made, after examination, and the thesis is submitted to the Faculty Registrar.

A summary of your key research findings must be submitted to the FRC on completion of your studies.

Kindest regards.
Yours sincerely

Dr Mogiveny Rajkoomar
FREC Chair
Faculty of Accounting and Informatics
Durban University of Technology
Ritson Campus

Appendix E

SHOWBEADZ PROOFREADING SERVICE

22/11/2021

313 Alexandra Road
Pelham PMB
KwaZulu-Natal

To whom it may concern

This is to certify that I have proofread the thesis by Nomfundo Kuhlekonke Minenenhle Nxumalo entitled: "**The effects of capital structure on the operational efficiency of small and medium sized manufacturing enterprises in Pietermaritzburg, South Africa**".

I have made any corrections to grammar and spelling which I felt necessary.

Regards,

Modupe Shola
0628849072
Modupeshola34@gmail.com

Appendix F