Effects of Capital Structure on Company Performance, A Perspective of Small Cap Companies In South Africa

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ABSTRACT

The Johannesburg's Alternative Exchange (JSE's Altx) is a public equity exchange for small and medium enterprises (SMEs) with high growth potential. It was established with the main objective to mentor the firms, provide them with the necessary support and management capacity building so as to grow them into large companies that will eventually list on the Johannesburg Stock Exchange (JSE) main board. This study sought to evaluate the effects of capital structure on company performance of small cap companies listed on the AltX of the JSE. The results from this may be used as proxy for general SME's in South Africa. A quantitative research was used to determine the relationship between the independent variables (capital structure variables of trade finance, long-term debt and short-term debt) and the dependent variable (financial performance which was measured using: 1. return on assets (ROA); 2. return on equity (ROE); and 3. gross profit (GP) margin). The study used secondary data from financial reports of small cap SMEs listed on the JSE's AltX. The data collected from these financial reports was analysed and discussed using descriptive statistics. Inferential analysis was undertaken using correlation tests and multiple regression analysis. The study finds the following: trade credit is the most prevalent capital source used by small cap firms but has no statistically significant effect on the company's performance. Short-term debt is second most used financing mechanism and has a significant effect on ROE. On the other hand, long-term debt was the least used source of capital by the firms but in terms of financial performance, it had a significant effect on the ROA. Results also showed that firm size has a positive effect on all the performance variables of ROA, ROE and GP margin. It was also confirmed that trade credit, short-term debt and long-term debt are expensive financing mechanisms as the results showed inverse relationships with financial performance. Hence, an increase in either trade credit, short-term or long-term debts by the small cap SMEs leads to a decrease in their profitability.

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GLOSSARY OF TERMS

AltX	-	Alternative Exchange
DTI	-	Department of Trade and Industry
GDP	-	Gross Domestic Product
JSE	-	Johannesburg Stock Exchange
NDP	-	National Development Plan
NCR	-	National Credit Regulator
POT	-	Pecking Order Theory
SCC	-	Small Capital Companies
SDGs	-	Sustainable Development Goals
SME	-	Small and Medium Enterprise
The Act	-	The National Small Business Act 102 of 1996

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INTRODUCTION

1.1 Introduction

This section introduces the thesis and explains the research problem giving rise to this research. It is arranged to start by explaining the background to the study area, followed by the problem statement. Research questions will follow, leading to the research hypothesis, justification and assumptions of the research. Section on organisation of the thesis will close the chapter.

1.2 Background of the Study Research Area

Small and Medium Enterprises (SMEs) play a crucial role in directing the world's economy (Abor, 2007). This sector has been identified to be a productive driver of inclusive economic growth and sustainable employment and development, particularly for the vulnerable groups such as women, youth and people with disabilities in developing countries (Zulu, 2015). In South Africa, SMEs represent up to 91% of formalised businesses and provide employment to almost 60% of the labour force, and a contribution to total economic output accounts for nearly 34% of the Gross Domestic Product (GDP) according to the annual review of small business report of the Department of Trade and Industry (DTI) of 2006-2007 (DTI, 2008).

The National Small Business Act 102 of 1996 defines SME as a separate and distinct business entity, including co-operative enterprises and non-governmental organisations, managed by one or more owners which, including its branches or subsidiaries, if any, is predominantly carried on in any sector or subsector of the South African economy (South Africa, 1996). For this study, the definition of SME adopted uses the number of employees combined with the enterprise's annual turnover and gross assets, excluding fixed property, as categories. SME will therefore include the following:

a. Survivalist enterprise – businesses with a small capital investment run by individuals with little to no business experience.
b. Micro enterprise – these are informal businesses run by no more than five individuals.
c. Very small enterprise – these are businesses with a formal setup but employ fewer than 10 employees.

d. Small enterprises – these are established enterprises, owner-managed and employing less than 50 employees with a slightly more complex structure.
e. Medium enterprises - these employ up to 100 employees with a decentralised management structure.

The South African government established The National Small Business Act of 1996 as a piece of legislation to "provide guidelines for organs of state to promote small business in the Republic; and to provide for matters incidental thereto" (Abor & Quartey, 2010). The Act specifically provides for the establishment of the National Small Business Council and the Ntsika Enterprise Promotion Agency in order to support the growth and sustainability of SMEs (Agwa-Ejon & Mbohwa, 2015).

Another structure in place in the country is the Khula Enterprise Finance which is mandated to "helping small and medium-sized enterprises to secure finance, primarily through the provision of security on behalf of small businesses to commercial banks, retail financial institutions, specialist funds and joint ventures, as well as offering loans through partner intermediaries" (Ramukumba, 2014).

In 2003, to address the funding problems faced by the small enterprises, the DTI partnered with the JSE to establish the AltX as a public equity exchange for small and medium-sized companies with high growth potential. This bourse was to cater for those well-established firms that are not yet ready to list on the JSE's main board, and as such, the listed companies would be mentored, provided with support and management capacity-building so that they grow into large companies that will eventually list on the main stock exchange. This highlights the importance of these SMEs to the economy of South Africa, hence this study evaluates how the capital structure of small cap companies listed on JSE's AltX impact on their performance, so that the government can perhaps realign its priorities based on the findings from the study.

SMEs still face an array of challenges despite having the aforementioned support structures in place and in South Africa this sector is still less developed in comparison to peer countries on the continent and the world at large (Mahembe, 2011). The National Credit Regulator (NCR) report confirms that South African SMEs have the lowest survival rate in the world. Their sustainability is further threatened by the tough economic challenges faced by industries

globally unless innovative and more resilient economic pathways and strategies are put in place to promote SMEs survival (Mahembe, 2011).

Although there may be supporting structures to assist SMEs to secure loans in South Africa, there have been high failure rates of these SMEs. This poor performance of SMEs could be attributed to inappropriate capital structures in place which limit the viability of SMEs to access funds. Mwangi (2015) concurred that inappropriate finance mix presented to many SMEs by their owners might be the contributing factor to their low success rates.

According to Abedian et al., (2014), SMEs do not manage their trade finance well, short- and long-term loans are not well managed and, as a result, they experience difficulties in enhancing their performances. This, he argues, will lead to SMEs not effectively using the debts in their operations and as such SMEs may continue to face financial distress and business failure. Therefore, this study examines the effects of different financing options on the financial performance of small cap SMEs as listed on the JSE's AltX.

1.3 Problem Statement

The DTI, in partnership with the JSE, established the AltX with the main objective to catalyse the growth of small and medium-sized businesses by providing these businesses with a platform to source the required capital for their operations. This was done by relaxing the listing requirements so that this particular market accommodates as many of the SMEs as possible (DTI, n.d.).

On the AltX, companies are required to only disclose earnings forecasts for the year as well as for the year after they get listed, unlike on the main board where firms are required to submit five-year audited financial statements among other documents. AltX companies can also list with a minimum of R2 million share capital. This is in contrast to the R25 million required at the main board to get listed. Given that AltX is meant for fast growing SMEs, however, according to the SME definition as defined in the National Small Business Act 102 of 1996, not all the firms listed on the JSE AltX fit into that definition of SME.

The problem that arises is whether the capital structure adopted by these small cap companies listed on the AltX will have any impact on how they will perform, given the high failure rate

of SMEs despite all the efforts made by the government to grow this sector. Previous studies,, for example Axelsson, Lundin, and Lions, (2016) as well as Muchiri, Muturi, and Ngumi, (2016) have identified various factors including corporate size, fixed assets and capital composition as some of the key factors impacting company performance. However, very few studies known to the author, have been carried out to understand how financing through debt will influence the company's main objective of improving the bottom line. Sustainable profit is the ideal to aspire towards as it enhances shareholder value, contributes to economic growth through provision of employment, and contributes to the fiscus through the payment of taxes, among other positive benefits.

According to South Africa's National Development Plan, which was derived from the country's Sustainable Development Goals, SMEs assume a huge task in the country's socio-economic development as they significantly contribute through employment creation and exports, as well as GDP. The success level of SMEs is depicted through their performance, especially financially, which could be measured periodically through their financial statements. Moreover, SMEs acquire their finances from a number of sources notably through short-term or long-term debt from the government, banks, microfinance institutions, relatives, friends as well as suppliers through trade credit for investing in working capital and assets (Dube, 2013). According to Ovayioza and Onoja, (2015) these forms or sources of debt are anticipated to facilitate SMEs' expansion and growth which would generate an increase in revenue to cover their operational expenses, including the interest on the debt itself, as well as provide a return in investment for the SME. However, there still seem to be questions on whether the utilisation of debt finance enhances SMEs' financial performance (Onoja & Ovayioza, 2015). Furthermore, despite the relaxation in the listing requirements for firms listed on the JSE's AltX, and hence unlimited access to sources to finances for the SMEs, it is still yet unknown what impact the resultant capital structure has on their financial performance.

Therefore, this study examines the effect of capital structure of a firm on its financial performance. The study is confined to those companies listed on the JSE's AltX, with a capital of not more than R1 billion. From this understanding, it was in the researcher's opinion that there was room for investigation to be able to answer the questions below:

1.4 Research Questions:

1. Is there a relationship between the use of trade finance and the performance of South Africa's SMEs?
2. What is the relationship between short-term debt and financial performance of SMEs in the country?
3. Is long-term debt related to the profit generating capacity of SMEs in South Africa?

1.5 Research hypothesis

The intention of this study was to ascertain if there is a significant relationship between capital structure and performance of small cap companies. According to Berger and Bonaccorsi di Patti (2006) in the study that they conducted of the relationship between capital structure and firm performance focusing on the banking industry, they argued that all things being equal, an increase in leverage results in a decrease in agency costs and better performance of a firm. Their work gives an expectation of a negative relationship between capital structure of a firm and its performance; hence this research will be guided by the following research hypothesis:

H_1: There is no relationship between trade credit and financial performance of a firm.

H_2: There is no relationship between short-term debt and financial performance of a company.

H_3: There is no relationship between long-term debt and financial performance of a firm.

1.6 Justification of the Research

Internationally, Margaritis and Psillaki (2010), conducted a study that focused on the relationship between capital structure and firm performance in France; The OECD (2015) highlighted the new approaches to SME and Entrepreneurship Financing by investigating the broadening of the range of instruments; Axelsson et al., (2016) conducted a "descripto-explanatory study of the Swedish market on the impact of financial performance on SMEs utilization of trade credit"; In Africa, Muchiri et al., (2016) evaluated the relationship between financial structure and financial performance of firms listed on the East Africa Securities Exchanges; whilst Obuya, (2017) investigated debt financing option and financial performance of micro and small enterprises in Nigeria.

This shows that there have been numerous studies conducted internationally and in Africa about capital structure and firm performance, be it large listed companies or SMEs. However, there are research gaps in that there have been limited studies on the impact of capital structure, particularly in terms of long-term debt and short-term debt as well as trade credit, on the performance of SMEs. In Africa most of the studies have been mostly focused on West and East Africa, notably Nigeria and Kenya, whilst few have focused on Southern Africa. South Africa being the largest economy in Africa, there is surely a need for regular and wide studies to be conducted focusing on establishing the effect of capital structure on the performance of their SMEs, especially in terms of long-term debt, short-term debt, as well as trade credit.

The research also seeks to make the researcher understand whether capital structure impacts positively or negatively on the performance of SMEs in South Africa. The resulting report will contribute to the body of literature that is useful for entrepreneurs, finance providers, policy makers, and decision makers of SMEs. Results of the study and findings thereto will benefit SMEs by empowering them to better understand and be informed of financing mechanisms at their disposal as well as implement a tailor-made capital structure that will impact positively on the performance of their firms. The results will also enable suppliers of finance to develop products and align them in meeting SMEs' sustainable financing needs.

The research techniques used in the study will go further to investigate other challenges facing SMEs and emerge with key policy recommendations for decision makers. These recommendations will focus on informing custom-made policies and strategies that are responsive to addressing financing gaps inherent within the SME sector in South Africa. It is anticipated that data-informed and data-driven decision making will stimulate sustainable and resilient growth in this important sector of the economy, thus contributing positively to the attainment of the SDGs.

The study also contributes to the existing academic knowledge in that it serves as a point of reference for further studies.

1.7 Research Assumptions

The researcher proposes the following assumptions to be used in this study:

i. Small cap SMEs listed on the JSE's AltX are a true representative of SMEs in South Africa.
ii. The information to be provided in the financial statements and reports on the company's website and the JSE are accurate and relevant to the research.
iii. The researcher has adequate resources to conduct this research successfully.
iv. It is also assumed that the current state of affairs at the SMEs would remain the same during the period of the study, especially in terms of incorporation.

1.8 Organisation of the Dissertation

The dissertation is structured as follows:

- Chapter one which gives the introduction. This chapter discusses the SMEs definition, significance of SMEs to the South African economy as part of background information. It also contains the problem discussion, purpose of research and research questions.
- Chapter two focuses on the most relevant theories of capital structure. It selects and explains relevant theories for analyzing the research questions.
- Chapter two further unpacks the hypotheses, per the theories. It reviews prior studies and findings aligned to the research
- Chapter three explains the methodology used in the thesis, defining the target population and sample for the analysis. Also, included is a description of the econometric model, selection of dependent and independent variables, data collection, and data reliability and validity. The chapter closes by explanations for the possible limitations on the study.
- Chapter four presents the results of the descriptive statistics, correlations and results of the regression tests and the empirical findings, analysis of the empirical findings and explanations about whether the hypothesis is accepted or rejected.
- Chapter five concludes the thesis; it presents analysis of the data, discussions and gives recommendations for future research on the same subject.

LITERATURE REVIEW

2.1 Introduction

The main objective of this chapter is to identify and examine the work that has been done by other researchers pertaining to the topic under study. This will assist in the research to refine the research problem and to define it more clearly. The literature reviews will also act as a basis within which the research findings will be interpreted and hence, overcome the limitation of the study. The chapter starts by providing the theoretical framework for the study, followed by a discussion of literature on capital structure; SME financing; debt financing options; SMEs, as well as the theoretical relationship between capital structure and financial performance. The chapter further discusses empirical literatures on SMEs and debt financing options and is concluded with a summary of empirical literature review and research gaps. Furthermore, the conceptual framework for the study is derived from the literature discussed in this chapter and will provide some of the concluding remarks for this chapter.

2.2 Theoretical Framework

A theory is a set of principles that explain some empirical observation. According to Myers (2001), a number of theories have been formed to describe the choice of financing adopted by firms, but a universally accepted theory has not yet been derived at. A review of capital structure theories which are suitable for SMEs will be explained below.

2.2.1 The Static Trade-off Theory

In static trade-off theory, according to Modigliani and Miller (1963), firms will choose the optimal capital structure that matches the tax benefits of debt to finance costs as well as bankruptcy and agency costs. This optimal leverage will minimise the cost of capital thereby maximising the value of the firm. This infers that successful and profitable enterprises will rely on debt in financing their operations due to the benefit that arises from tax savings. The trade-off theory of capital structure is the possibility that an organization chooses the best mix of debt finance and equity finance to use by adjusting the costs and benefits. According to Kraus and Litzenberger (1973), this trade-off hypothesis is considered to be the same as a

balance between the dead-weight expenses of liquidation and the tax saving advantage of debt. Agency costs are in most cases taken into account.

This static trade-off theory is a contender theory to the pecking order theory of capital structure. An essential reason for the theory is to clarify the way that partnerships are, often. financed to some extent with debt. According to Fama and French (2002), it expresses that there is a favourable position derived should firms finance with debt given the accruing tax benefits of debt financing versus the cost of financing with debt and the costs of financial distress, including the liquidation costs due to debt and non-bankruptcy costs. Furthermore, de Jong, Verbeek, and Verwijmeren (2011) add that the marginal benefits of further increments in debt reduces as debt increases, hence while the marginal cost builds, a firm will concentrate on this trade-off while choosing how much debt and equity to use for financing.

The relevance of the trade-off theories has been frequently questioned. For instance, Modigliani and Miller (1963) argue that taxes are vast, and they are certain, while liquidation is uncommon and has relatively low dead-weight costs. They proposed that if the trade-off theory were valid, at that point companies should have significantly higher levels of debt than what is being witnessed. Myers (2001) was an especially strong critic of the theory in his delivery to the American Finance Association gatherings, which gave birth to the pecking order theory. Moreover, Fama and French (2001) reprimanded both the trade-off theory and the pecking order theory in various ways. Furthermore, de Jong et al., (2011) contended that organizations do not fix the effect of stock price shocks as they ought to under the essential trade-off theory, thus the mechanical change in the prices of assets that makes up for the vast majority of the capital structure variation.

Regardless of such reactions, the trade-off theory remains the predominant theory of corporate capital structure, as illustrated in Principles to Corporate Finance courses and reading material. Dynamic forms of the model generally appear to offer enough adaptability in coordinating the data; thus, in opposition to Miller's verbal contention, dynamic trade-off models are difficult to dismiss experimentally. Bankruptcy of the well-known trade-off theory has been demonstrated. Moreover, the Brusov–Filatova–Orekhova (BFO) theory has crushed some primary, existing standards of financial management: among them the trade-off theory, which was considered to be the cornerstone of the development of an optimal capital structure of the organization over numerous decades (Brusov, Filatova, & Orekhova, 2014).

2.2.2 The Pecking Order Theory

Myers and Majluf, (1984) came up with the pecking order theory, which suggests that firms follow a certain hierarchy when raising capital, starting with less risky retained earnings, followed by safe debt and eventually equity. They further add that this order is because of asymmetric information given out onto the market by each financing option that business managers analyse to make a prudent decisions about cost-effective sources of financing, regardless of the resultant debt-equity ratio. Although the pecking order theory permeated the descriptive literature, it was clearly articulated by Myers, (1984). Taking into consideration the three sources of finance available to firms; retained earnings, debt, and equity, firms will prefer to use internal sources first. Only when they will require additional financing will they opt for debt, and as a last resort they will go for equity as this option dilutes control of the company. According to Watson and Wilson, (2002) the SMEs use of these financing sources is consistent with the pecking order predictions especially in closely held firms. These problems are specifically relevant to up and coming as well as to innovative firms.

On the other hand, Frank and Goyal, (2009) were of the view that for companies to enhance their cash flows and maximise on profits, they need to follow a certain hierarchical technique of financing their ventures, starting with a financing option with the lowest cost, being retained earnings, then safe debt, and lastly equity. However, Axelsson et al., (2016) believe that equity financing has severe adverse selection, while debt and retained earning only has minor adverse selection problems. They also add that from an outside investor’s point of view, equity finance is strictly riskier as compared to debt finance. Rational investors on the other hand will revalue a firm's securities when it floats a new security onto the market. This is based on the conclusions from the work of Frank and Goyal, (2009)

From the point of view of equity, Obuya, (2017) elaborated further that a reduction in valuation of equity send a signal which makes equity look undervalued, conditional on issuing equity. However, from the angle of those within the firm, retained earnings being an internally generated source of finance are a better source of finance compared to external financing. As such, retained earnings are thus used whenever possible and only when they are inadequate will firms opt for debt financing. Firms will make use of equity finance only as a last resort. This is also a confirmation of the works of Frank and Goyal, (2009).

2.2.3 Agency Theory

Smith, (1776) described that "directors of joint-stock companies should watch over the invested money with the same anxious vigilance as partners in a private corporation watch over their own" (Cannan, 1904, as cited in Zingales (2017)). This specific thinking turned into the establishment for what is referred to today as the agency theory. Agency relationship in laymen terms is defined as a specific contract under which one person, referred to as principal, engages another person, known as an agent, to perform a service on their behalf. The contracting party will delegate, to a certain extent, some decision-making authority to the agent (Jensen & Meckling, 1976). However, Ang (1992) argues that should both the principal and the agent be utility maximisers, then it is essentially impossible for the principal to have the agent make optimal decisions. This may result in managers exerting insufficient work effort, indulging in perquisites, not maximizing the welfare of the principal, or failing to maximize the firm value (Berger & Udell, 2006). Thus, they believe that agency costs are a direct by-product of the separation of ownership and management, materializing from aligning the interests of the two. Jensen further suggested that agency costs bring two kinds of agency costs, being agency costs of equity and agency costs of debt. As such, this brings an opportunity for a conflict between the company's managers and shareholders in the form of agency costs of equity, and a conflict between shareholders and debt-holders in the form of agency costs of debt. The equity holders will push for the maximisation of firm value, resulting in a higher share value. On the contrary, the debtholders will advocate for sustainability as this will ensure that their interest in the firm in the form of debt and interest thereto is secure. This relationship clearly indicates a conflict of interest among the shareholders and the debtholders, resulting in an agency cost trade-off between equity and debt (Muchiri et al., 2016). Further, the authors suggest that implementing control systems or compensation plans could alleviate the agency costs related to equity. However, Axelsson et al. (2016) argue that these mitigating plans could swing the manager's incentive to take on risky debt, hence the mitigation related to equity agency costs would effectively increase those for debt. This will ensue when leverage becomes relatively high and which may further generate increased agency costs of outside debt. Risk allocation or reduced effort to control risk, could result in higher expected costs of financial distress, bankruptcy, or liquidation (Axelsson et al., 2016). Ultimately the agency costs will increase the interest expenses for the firm with the sole objective of rewarding the debtholders for their expected losses (Muchiri et al., 2016).

From the works of Jensen and Meckling, (1976), agency cost is further described in the form of three variables: the principal implementing monitoring mechanisms, hence incurring monitoring expenditures; the agent expending resources which guarantee they will not take actions detrimental to the principal's best interests in the form of bonding expenditure; and, the residual loss. They described that in most principal-agency relationships, the two parties will incur positive monitoring costs. Furthermore, as a result of the monitoring and bonding mechanisms, some divergence between the agent's decisions and those that maximise the welfare of the principal will occur (Berger & Bonaccorsi di Patti, 2006). They also added that this divergence will then eventually result in a diminished welfare of the principal, indicating the residual loss. Thereafter the principal will have to consider the trade-off between the agency costs of mitigating the residual losses, versus the potential for the agent acting against the incentives of the principal (Eisdorfer, Giaccotto, & White, 2013).

When compensation leverage, meaning mechanisms put in place to mitigate the agency costs, is lower than the firm leverage, then investment distortion is more likely to increase the value of equity (Muchiri et al., 2016). According to Axelsson et al., (2016) when compensation leverage on the one side is more than the firm leverage, investment distortion is more likely to increase the value of debt. They further argue that this indicates that managers have personal incentives to deviate from an optimal investment policy so that they increase their own compensation, at the expense of the firm's value. Consequently, shareholders will more likely not support an additional trade-off, being the leverage ratio optimal for the company, and the optimal compensation leverage for the manager. This indicates that a firm's capital structure plays an important role when mitigating agency costs. Therefore, companies may be able to mitigate agency costs by setting the manager's compensation leverage as close as possible to the firm's capital structure leverage ratio (Muchiri et al., 2016).

Theory therefore suggests that the decision of capital structure choice may assist to mitigate these agency costs. The agency cost theory implies that high leverage, that is a low equity to asset ratio, decreases the agency cost and increases the firm value by obliging managers to align their incentives as to those of the shareholders (Axelsson et al., 2016).

2.3 Capital Structure

Several theories as discussed earlier, help us to understand what influences firms' capital structures, defined as the approach a firm employs to finances its assets, through a mix of equity, debt, or a blend of both. Additional elements that might influence the small cap companies' choice of financing will be examined below.

2.3.1 Profitability

According to Berkovitch and Israel (1996), it is not only the attributes of debt that impact on the financial performance of SMEs, but also the mere fact of power sharing between the debt holders and the business proprietors has an impact on the financial performance of the firms. Chell and Baines (1998), as cited in Kangasharju (2000), argue that the performance of SMEs is the most determinant factor that impacts on a firm's growth and its capacity to grow into a completely defined shareholding firm. There are various ways to measure financial performance, but the indicators which are often used include increase in revenue or growth in profit margins.

According to Sandberg, Vinberg, and Pan, (2002), the performance of micro and small businesses is determined through their ability to make a contribution to job creation, wealth maximisation, survival and growth. Voulgaris, Asteriou, and Agiomirgianakis (2004) on the other hand argued that financial performance is the main driver of the financing decisions for small enterprises, in particular those entities with high gross profit margins. However, they further established that financial performance is negatively correlated with overall leverage, which points to pecking order hierarchy being followed by SMEs as the firms prefer to finance through less risky internal funds. This view is supported by Abor (2007) who confirmed a high negative relationship between financial performance and leverage.

Slywotzky, (2008) stated that financial performance measures the ideal utilisation of firm's resources to improve the bottom line, thereby maximising the shareholders' wealth. The author concurred that company success is determined by the profits that they make, and that profitability ought to be determined in terms of each individual enterprise's circumstances (Slywotzky, 2008). On the other hand, Delen, Kuzey and Uyar, (2013) argue that it is difficult to derive a full picture on the performance of a company by merely looking at the profit and loss account or a balance sheet. Other indicators, such as ratio analysis of the financial

statements, are therefore used to determine the company's performance and to give signs of trends and patterns. Ratios allow comparisons with previous years' performance as well as against other businesses operating in a similar environment (Delen et al., 2013).

Delen et al., (2013) further state that annual financial statements are used by various stakeholders, including banks, to evaluate the performance of the SMEs to ensure their proper use of finance extended to them and to predict the enterprises' prospects. The performance indicators used by various researchers in the studies that they performed on the subject made use of ratios such as ROA, liquidity, solvency, and sales growth: all of which can be easily calculated from the company's financial statements. Forte, Barros, and Nakamura (2013) also add that information on financial performance of an entity is of importance in forecasting the capacity of the firm and to determine how efficient or poorly it is performing against its set objectives or other players in the same industry.

According to Harash, Al-Timimi, and Alsaadi (2014) financial performance can also be defined as the capability of the SMEs to operate efficiently, generate sustainable income, survive, and grow by taking advantage of environmental opportunities and internalising threats to the company. However, according to Axelsson et al. (2016), a solid financial performance on its own is not sufficient if firms disregard external debt completely. They noted that those firms that make use of institutional finance are in general the firms with the best financial performance, are also the most solvent companies and the largest. These are the features that provide them with credit quality, thereby assisting them to access financing with better terms when compared to those firms facing financial challenges. In conjunction with this, Abor (2016) contends that those firms not performing well are more likely to resort to supplier finance, which on the downside expose them to higher chances of liquidation, in case of non-payment or delayed settlement of supplier accounts due.

Consequently, the research in this study will adopt ROA, ROE as well as the GP margin ratios as tools for determining the dependent variable, financial performance. This is considered suitable since it brings out the firm's profitability in relation to its sales, equity and assets and thereby providing a clearer indication of the prevailing market situation in relation to performance of the enterprise.

2.3.2 Size of the firm

The study conducted by Berger and Udell (1998), on how size of the firm influences its financial leverage revealed that smaller firms face enormous challenges in accessing finance through financial institutions due to information asymmetry, which significantly reduces their access to financing opportunities. They also noted that the larger the firm becomes, the wider its range of financing options at its disposal, which includes, for example, bank finance and can even float shares on the stock exchange (Berger & Udell, 1998).

According to Berger and Udell (1998) the mainstream of small firms do not have proper structures which clearly differentiate management and ownership, a problem which gives rise to some agency issues in capital structure decisions. These conflicts emerge from the mere fact that the owners of small firms are not prepared to lose or dilute the control they have on their ventures. Nonetheless, García-Teruel and Martínez-Solano, (2007) noted a positive relationship between trade credit and size of the firm when they conducted a study in Spain on the "effects of working capital management on SME profitability".

Furthermore, in the study conducted on the Swedish SME market by Axelsson et al. (2016), a conclusion was made that when small entities require finance they face the challenge of information asymmetry, which is not the case with large companies. Muchiri et al., (2016) argued that due to these challenges, small enterprises as a result opt for other forms of financing, such as making use of facilities extended by suppliers in the form of trade credit. For firms to access bank funding, they are required to have sufficient collateral in the form of assets on their balance sheets. Obuya, (2017) believes small firms often have difficulty in fulfilling this requirement and therefore are discriminated from this financing option.

From the discussion above, firms of different sizes clearly attract different sources of capital which have a bearing on the resultant capital structure. Smaller entities do not have access to the same finance mechanisms at the disposal of large firms, meaning that they must resort to other sources of financing to create financial leverage. This results in larger firms having a relatively higher debt-equity ratio as compared to small firms.

2.3.3 Age

As argued by Myers (1984), short-term debt and trade credit, represents a substantial portion of SMEs financing mechanisms. This means that trade credit is extremely important for SMEs, particularly in the beginning of their life cycle. However, as the firms age, their repute improves, and so does their credibility and available collateral in the form of tangible assets, which can significantly reduce the problems pertaining to information asymmetry (Berger & Udell, 1998). As such, Berger and Udell (1998) argue that the likelihood to substitute short-term debt with long-term debt rises.

Small enterprises begin their life cycle with minimal or no retained earnings on their balance sheets and as a result may become over-dependent on short-term debt. In line with pecking order theory, firms have a higher preference to finance their activities from internal sources such as retained earnings rather than by borrowing from external sources. Essentially however, start-up SMEs rarely have the capacity to generate internal finance, which then forces them to resort to incurring debt (Berger & Udell, 1998). The authors further confirmed that an enterprise's age is a significant variable to note in the study of SMEs' financing decisions, given that young SMEs have often not acquired a sufficient level of reputation to obtain credit on favourable terms. Serrasqueiro and Nunes (2012) suggest that a company's age is a key factor in the determination of SMEs' capital structure decisions, when it comes to adjustments for debt.

In addition, Muchiri et al. (2016)'s findings show that the funding of SMEs goes through a growth cycle where, at different stages of the firm's development, there would be an optimal capital structure. In the beginning of their life cycle, the SMEs typically depend on external lines of credit advanced by their suppliers, but however, with time they often establish long-term relationships with financial institutions such as banks. This suggests that the firms will substitute expensive short-term debt with relatively cheaper long-term debt (Muchiri et al., 2016).

Axelsson et al. (2016) believe that with the passage of time these SMEs become more transparent with formal structures, and the way they relate with lending institutions improves. They also add that this will mean the firms will tend to settle off their accounts payable, hence reducing their reliance on trade credit. They further explained that this is probable due to relationships established with the lenders from information collected by these financial

institutions through ongoing associations with the enterprise. According to Axelsson et al. (2016) the information gathered is at a later stage used to assist in in decision making, particularly on improving and refining contractual terms and monitoring strategies, which result in more favourable long-term borrowing terms for the enterprises.

One can conclude that age has a similar correlation as that of size on a company's financing decisions. Start-up companies in most cases must depend heavily on short-term debt as their source of finance, but with the passage of time and as the companies grows, their access to institutional debt improves, and they substitute short-term debt with long-term debt. Lastly, and in line with the pecking order hypothesis, the enterprise is of such age that it can finance its operations from retained earnings. Hence, this life cycle paradigm is a significant variable to consider especially on the effect of trade credit and short-term debt, and their association to the financial performance of the enterprise.

2.3.4 Industry

Kayo and Kimura, (2011) explained the necessity of considering industry as a factor that has an impact on capital structure. According to them, companies in the same industry in most cases will have similar behavioural characteristics and will thus have leverage ratios which are almost the same. This is due to the fact that the companies will have a strong within-cluster correlation, unlike companies from different industries, which are more likely to have significant differences (Kayo & Kimura, 2011). The authors brought to the fore three main aspects related to industry that influence on the capital structure. These are: 1. abundance of resources within an industry 2. the unpredictability of the industry; and 3, the competition within an industry. They further emphasised that these three aspects are worth considering when conducting studies on capital structure. Thus, it is rational to consider that characteristics of an industry might influence the capital structure of companies in that industry.

In relation to the aspects mentioned by Kayo and Kimura (2011), industries with high volatility will have more firms facing financial distress. As such, the authors made an interesting find, which touches on the pecking order and the trade-off hypothesis. In their study, they found a negative relationship between leverage and profitability which confirms the pecking order theory, given that companies which have the highest profit margins are

associated with the low leverage ratio, and this finding differs with the trade-off theory which argues for a positive relationship. Leverage was also found to be high in those industries which are highly concentrated. Therefore, as stated by Kayo and Kimura (2011), these three characteristics have an effect on the capital structure of companies, and will therefore need to be considered in the study on capital structure.

2.4 SME Financing

As documented by Myers and Majluf (1984), SME financing differs extensively to that of large corporations. The authors' findings confirmed that capital structures of these two types of organisations differ, which is a result of the fact that SMEs in most cases are not publicly listed and as such have no access to capital markets. Moreover, information asymmetry influences the financing decisions of SMEs, as information asymmetry increases the risk in granting finance to these types of enterprises, in contrast to large corporations. Myers and Majluf (1984) argued that the firms follow a hierarchy when seeking financing, where they opt first for sources of finance that are the easiest and least risky to secure. As a result, the SMEs favour internal sources over external sources of finance, based on the pecking order hypothesis, that is internal funds, debt, and lastly external equity in that order. However, in the real world, internal funds are most of the time insufficient for a firm's sustainable growth.

The above challenges often lead to suboptimal capital structure for SMEs, which then increases their risk of insolvency (Ebben & Johnson, 2006). However, the theory of capital structure still applies to SMEs and it should therefore be possible for these small firms to have an optimal capital structure. This is, however, controversial given that SMEs financing and their capital structure options are to a large extent driven by market imperfections. Jones and Jayawarna (2010) for example, found that SMEs relied on financial strategies that enabled them to manage their inaccessibility to the capital markets. Because of SMEs limited access to capital markets, they rely upon long-term debt to fund cash, provide liquidity and manage their risk of insolvency.

As such, SMEs financing and capital structure decisions are a complex matter, given that the main drivers for SMEs financing strategies are market imperfections. Compared to larger corporations, who can easily raise funds from capital markets or financial institutions at better terms, SMEs will have to find alternative sources of financing.

2.5 Debt Financing Option

Binks and Ennew (1996).state that when financial houses, commercial banks, including suppliers, are on a drive to widen their clientele base, small entities are their target customers and easy catches as SMEs are also always on the look-out for bank finance, to supplement trade credit and support extended by their families or friends, in order to fund their operations. Brealey et al., (1999) also believe that the option to fund through debt is intended at enhancing the earnings potential of the firms. When the debt is fully paid all, the benefits will accrue to the owners and they will be able retain the surplus which can fund future capital requirements. However, Brealey et al., (1999) also acknowledged that debt is associated with direct as well as incidental costs in the form of interest, agency and bankruptcy costs, and also in a loss of flexibility. To Mensah (2004) debt finance option is when firms fund their operations from resources obtained from third parties from which they have to repay those funds within a specified time period.

Additionally, Hussain, Millman, and Matlay (2006) noted that the debt financing option is used by firms in different stages of their life cycles, and this can be for expansion purposes or merely to get out of tough economic situations. Debt financing can be in various forms which includes trade credit extended by suppliers, loans in various forms, be it from banks, individuals, financial institutions or from the government. Trade credit comes in handy to SMEs in situations where they are faced with cash flow challenges that can hinder them from acquiring raw materials or services on a cash delivery basis. Trade credit also work as a safety net when other suppliers offer early settlement discounts, but also, suppliers can impose penalties on firms should they be in breach of agreed-upon contractual obligation (Hussain et al. 2006; Miwa & Ramseyer, 2008). Nonetheless, to SMEs trade credit could be cheaper when compared to loans in either form.

Moreover, Cuñat and Garcia-Appendini (2012) concur that small firms opt for debt financing options because, in their argument, it is relatively cheaper and also the fact that the previous creditworthiness of the firm is not a prerequisite consideration. On the other hand, Onoja and Ovayioza (2015) argue that finance cost on debt is fixed in advance, thus allowing the company to plan accordingly and, given that the company can claim the interest as a tax deduction, this will enhance the value of the entity.

2.6 Small and Medium Enterprises

According to Abor (2007), there is no universal definition of SMEs' as it varies across different countries or regions depending on local operations and conditions such as staff establishment, noncurrent assets and rate of turnover. These SMEs, unlike large entities, survive by riding through harsh economic environments due to their sizes and flexibility. Matarirano (2007) believes the importance of SMEs to African economies through the provision of employment opportunities, which ultimately reduce poverty, a priority the world over to meet the millennium goals set, has inspired various governments to offer the SMEs with loans at reduced interest rates. This view is also concurred by Boohene, Agyapong, and Asomaning (2012) who further claim that those SMEs not privileged to get funds from their governments will then fall back on other forms of debt which includes trade credit, short-term and long-term loans from various sources including relatives, friends, commercial banks and financial institutions.

Dube (2013) is of the opinion that whether SMEs are government funded or resort to debt financing option, their financial performance and their survival remains a puzzle as many of them struggle to remain in business in the long-term. It is, therefore, necessary to review the impact debt financing has on the subsequent financial performance of the small firms. There are, however, various views on the impact that capital structure has on firm value. The income operating approach put forth by Durand suggests that a change in the debt structure or leverage will not affect the overall value of the firm. The firm value is derived from its operating income and the associated business risk, the two variables that cannot be affected by the financial leverage. Financial leverage can only affect the distribution of income earned to the various stakeholders, particularly to the equity and debt owners. This position is supported by a number of researchers including Onoja and Ovayioza (2015) who resolved that there is no such thing is optimum capital structure. However, the traditional view suggests that there exists an optimal debt to equity mix where the overall cost of capital is the minimum and market value of the firm is the maximum. As a result, movements in the financing mix can bring either positive or negative change to the value of the firm (Onoja & Ovayioza, 2015).

2.7 Theoretical Relationship - Capital Structure and Financial Performance

Myers and Majluf (1984) came up with the pecking order hypothesis, which proposes that firms follow a sequence when raising capital. They further argue that there is no standard capital. However, the best mix of debt and equity, known as the optimal capital structure, is the combination that "minimizes the financing cost, and maximizes the value to the firms by giving the best balance between tax benefits and distress costs" (Bradley, Jarrell, & Kim, 1984).

On the other hand, Shyam–Sunder and Myers, (1999) argue that the main argument on theoretical relationship between capital structure and financial performance is the cost of obtaining the capital and the benefit derived thereafter from its utilisation. They add that the static trade-off theory highlights the cost vs the benefit of debt, where the expectation is for benefits to outweigh the associated costs. Therefore, the resultant revenue should be adequate to cover the operational costs, pay interest on the debt and satisfy the shareholders' required return on their investment. As interest is tax deductible, the tax savings then contributes to higher profitability, pointing, theoretically, to a positive relationship between the debt financing option and financial performance (Brealey et al., (1999); Shyam–Sunder & Myers, (1999)).

Brealey et al., (1999) holds that using debt is a financing approach intended to enhance the rate of return on owners' investment by giving a greater return on borrowed funds as compared to the cost associated with those funds. A higher leverage in the capital structure leads to an increase in the return required on shareholder capital, ROE. Debt is beneficial when a firm makes high profits margins as it will mean higher returns to the shareholders. High debt levels are expected to result in an increase in a firms' ROE which is the ultimate measure of profitability. However, the impact of financial leverage on a firms' profitability can either be positive or negative. A positive association will ensue if ROA is greater than the before-tax interest rate paid on the debt, and negative association occurs when a firm generates a ROA that is less than before-tax interest on debt (Brealey et al., 1999)

According to Hashemi (2013), the techniques used to determine financial performance include; current ratio, derived by dividing current assets by current liabilities, GP margin derived by dividing gross income by sales, and ROA obtained by dividing earnings before interest and tax by the total assets. ROE is a measure of how much an enterprise earns

relative to the amount invested in its common stock, being equity (Harash et al., 2014). It is measured by dividing earnings after interest and tax by the entity's net worth.

Financial leverage is determined in terms of trade credit, short-term and long-term loans whose ratios of usage are established by dividing each portion of debt by the total liabilities (Harash et al., 2014). According to Muchiri et al. (2016) debt financing is presented in terms of the same variables of trade credit, short-term and long-term loans. The respective ratios are however measured by dividing the debt component with total assets (Muchiri et al., 2016).

2.8 Empirical Literatures

This section focuses on the review of empirical literature on the impact that capital structure has on performance of SME's. According to Saunders, Lewis, and Thornhill, (2009) empirical research is 'a way of gaining knowledge by means of direct and indirect observation or experience'.

2.8.1 Trade Credit and SMEs Financial Performance

Booth, Aivazian, Demirguc-Kunt, and Maksimovic, (2001) posit that trade credit is a short-term loan which suppliers of raw materials and services advance to their customers. Trade credit is amongst the key debt financing mechanisms readily available to SMEs, which in most cases does not require to be secured, and also customers' previous credit worthiness is also not a pre-requisite (Shin-ichi, Munehisa, & Kentaro, 2006). It is an alternative credit facility same as bank loans and it addresses the cash flow constraints which SMEs face (Miwa & Ramseyer, 2008)

According to Cuñat and Garcia-Appendini, (2012) use of trade credit is of benefit to SMEs because it is associated with reduced transaction costs due to the fact that payment is deferred to a future date unlike when paying for the goods and services upon assuming delivery. However, Martínez-Sola, García-Teruel, and Martínez-Solano, (2014) argue that trade credit also expose SMEs to liquidation which then forces these small firms to opt for other forms of financing. Moreover, in return for the credit advanced, the suppliers impose certain terms, such as effecting payment after certain days from delivery or statement date. The suppliers of credit may also offer a settlement discount to encourage early settlement of accounts and at

the same time specify the penalties in case the customers breach on the agreed terms, which will increase the cost of trade credit (Martínez-Sola et al., 2014).

From the perspective of Muchiri et al. (2016), SME sectors in developed and developing economies use trade credit as a substitute to bank loans in order to fund their operations.. It provides a safety valve for those firms facing liquidity crunch. The authors argue that trade credit is a more efficient instrument used to address market inefficiencies compared with other forms of financial intermediation such as banking. They gave the procurement cycle as an example, whereby an order is placed, followed by delivery of goods or services and finally settlement of the account through effecting a payment. This process on its own generates information and sends a signal, which in its absence, would be costly to parties uninvolved in such a transaction. Also, trade credit plays a part in sending out information about the quality of the product. The theoretical base of the association between trade credit and asymmetric information point to a significant relationship between trade credit and firm's performance (Muchiri et al., 2016).

Furthermore, trade credit reduces transaction costs by settling accounts owing on set dates, say 30 or 60 days from statement, instead of making a payment each time goods are delivered. Hence, Muchiri et al. (2016) contend that trade credit is a sustainable financing option at the disposal of entrepreneurs which will substantially enhance on financial performance.

According to Muchiri et al. (2016), trade credit is also an effective means for firms to discriminate in scenarios of market imperfections such as shortages or price wars when other forms of discrimination are either too costly or illegal. Suppliers can offer payment discounts to specific customers who are willing to pay a higher price instead of refusing them due to market conditions; this strategy will reduce business risk and at the same time ascertain consistency in financial performance (Muchiri et al., 2016).

2.8.2 Short-Term Debt and Financial Performance

According to Axelsson et al. (2016) a short-term debt is a balance sheet account presented under current liabilities and it comprises of any debt of the firm that is due and payable within 12 months after the balance sheet date. They add that when short-term liabilities of a

company exceed the total of all cash and cash equivalents, this is an indicator that the SME may be in poor financial health and may not be in a position to settle its debt obligation when they fall due (Axelsson et al., 2016).

A portion of the long-term debts that is due within a year after balance sheet date is also included in this account (Axelsson et al., 2016). According to Muchiri et al. (2016) the most common type of short-term debt is short-term loans advanced by commercial banks and other financial institutions. These loans are obtained as bridging finance in order to fund in most cases working capital requirements (Axelsson et al., 2016). The term "bank plug" is also used referring to short-term loans from the fact that these loans are in most cases used to fill a gap whilst firms negotiate for longer term financing options (Muchiri et al., 2016).

Dependent on the way salaries are paid to employees, the unpaid portion of salaries and wages can also be classified as short-term debt (Axelsson et al., 2016). As an example, should the pay date fall on the 15th, then the portion for work performed from the 16th to end of the month will constitute a short-term debt account to the company (Axelsson et al., 2016).

Muchiri et al. (2016) gave a further example of lease payments that are due within one year as another form of short-term debt. Should a firm contract for say, six months to lease for warehousing space, this is again classified as short-term debt. Moreover, Axelsson et al. (2016) defined taxes owing as a form of short-term debt. If the company owes the revenue authority some taxes, this is considered a short-term liability, hence forms part of the short-term debt.

Hashemi (2013) contends that short-term debt can reduce agency conflicts between the owners of equity and the debt holders. Therefore, one can note that empirical evidence also confirms that entities make use of short-term loans to address the problem of underinvestment as management is regularly being monitored through periodic credit renewal. As per Martínez-Sola, García-Teruel, and Martínez-Solano (2014), short-term debt is seen to be a relatively cheaper mode of financing, hence preferred by both the business owner and the bank. They further confirmed a positive correlation between short-term debt with a firm's growth opportunities (Martínez-Sola et al., 2014). They justified the findings by suggesting several benefits of financing through short-term debt, namely that short-term debt is acquired and therefore applied to address a specific cash flow requirement. Short-term loans also

cement the relations between the firm and the lender due to periodic renewals and hence, firms will benefit from favourable credit conditions on future loans that they obtain. Abor (2016) emphasised that it is crucial to match the maturity date between debt and the life of assets. His findings also confirmed the existence of a positive effect of short-term debt on firm profitability.

2.8.3 Long-Term Debts and Financial Performance

Long-term debt is a resource that is owed to lenders that is paid off over a period exceeding one year from the date of the current balance sheet. When the period left until the portion of the long-term debt is paid off becomes less than 12 months, debt converts to short-term debt. Moro et al., (2009) state that long-term debt is used to finance working capital requirements but, in most cases, used for the acquisition of assets and equipment with longer payback periods. They also add that financing through long-term debt is advantageous as it is generally less prone to short-term market shocks since it is secured through a formally established contractual obligations. Consequently, from this reasoning long-term loans are relatively more stable than short-term debt (Moro et al., 2009).

This type of debt financing is usually well structured and defined, with repayments linked either to the free cash flows or linked in some way to the growth of the company's operating capacity, for example, financing for the acquisition of capital assets such as machinery (Moro et al., 2009). As such, minimal resources have to be directed to the monitoring and maintaining of long-term debt obligations as compared to short-term debt obligations which require regular monitoring (Moro et al., 2009). Other forms of long-term debt obligations, for example finance leases, give a certain level of flexibility, when compared to having to acquire the asset outright (Ebaid, 2009).

Prior studies on effect of long-term debt on company performance have offered varied results. Huang and Song, (2006) in their study on the emerging market economy of Egypt, found long-term debt to have a negative effect on profitability as measured by ROA. Abor, (2007), in the study that he conducted on the relationship between capital structure and financial performance of Ghanaian companies also confirmed that long-term debt has a negative effect on company profitability.

Firms make use of long-term debt with the expectation that the financial performance of their firms will improve in the future. These long-term loans are secured through assets or equipment from which their utilization will enable the firms to generate the required cash flows to pay back the loans and interest (Hashemi, 2013). Over-reliance on the long-term debt by SMEs results in increased interest charges and the possibility of bankruptcy, which hinders enterprises from fully recovering the capital outlay (Hashemi, 2013). Nonetheless, Harash et al., (2014) in their study on the impact of capital structure elements on SMEs in Iraq found no significant relationship between long-term loans with financial performance as measured by ROA and GP margin was established (Harash et al., 2014).

Recently, however, in the study conducted to investigate effect of debt financing option on financial performance of micro and small enterprises in Nigeria, Obuya (2017) found long-term debt to have a positive effect on financial performance. In the justification to the findings, Obuya, (2017) argued that this was not unusual given that long-term debts provide these small firms with a competitive edge as compared to large enterprises. He stated that firms in the manufacturing sector in particular had long-term debt positively related to the gross profit margins, growth/share as well as their marketing/sales effectiveness (Obuya, 2017).

Based on the above reviews, recent studies conducted on SMEs capital structure suggests that, no tool has been provided to deal with debts in general and its effect on SMEs' financial performance: theories have also not fully accommodated the capital structure of SMEs; in addition, empirical research has not specified on how to determine the ideal capital structure for the SMEs. Therefore, the researcher sought the need to conduct this study, looking at the small cap companies listed on the JSE's AltX.

2.9 Summary of Empirical Literature Review and Research Gaps

The literature reviews performed showed conflicting effects that capital structure has on the performance of SMEs. Due to the high costs associated with the use of long-term debt, as portrayed by the literature reviews, the chance for the SMEs to fail and go into liquidation is highly probable. Studies conducted on debt financing indicate either a positive or negative relationship on profitability of the firm. Abor (2007) conducted a study on the impact of capital structure on the corporate profitability of listed firms in Ghana using a panel

regression model and he concluded that there was a positive relationship between short-term debt and profitability. The same study confirmed a negative relationship between long-term debt ratio and profitability. However, a positive association between total debt ratio and profitability was established.

Prior findings that may draw the researcher off-balance from the reviews indicates that there is no significant relationship between debt financing and financial performance as measured by long-term loans and ROA (Ebaid, 2009). The trade credit facility that is generally perceived to cushion the short-term cash flow challenges faced by SMEs, on the downside is associated with higher costs because of penalties charged and other recovery costs because of delayed payment. Trade credit is also associated with high levels of default, which lead to liquidation of the enterprises (Cuñat & Garcia-Appendini, 2012). These differing results on the effects of debt financing on financial performance are further revealed in the work of Obuya, (2017) where a positive relationship was established between long-term debt financing and financial performance.

In South Africa, there are no studies that are known to the author that have been conducted on how and to what extent the debt financing variables impact on the financial performance of SMEs using data at the firms' level. This study will therefore establish the effect of debt financing on financial performance of SMEs by making use of small cap companies as listed on the JSE's AltX.

2.10 Conceptual Framework

The system on the next page depicts the relationship to be established between trade credit, short-term debt and long-term debt on the performance of SMEs. The dependent variable representing financial performance is measured in terms of ROA, ROE and the GP margin ratio, and the combined effect of the three independent variables determined to establish their impact on the dependent variable to reach a conclusion as to whether there is a significant effect on financial performance or not. The conceptual framework represents the relationship of the three dimensions of capital structure and measures of financial performances as illustrated in figure 2.1 on the next page.

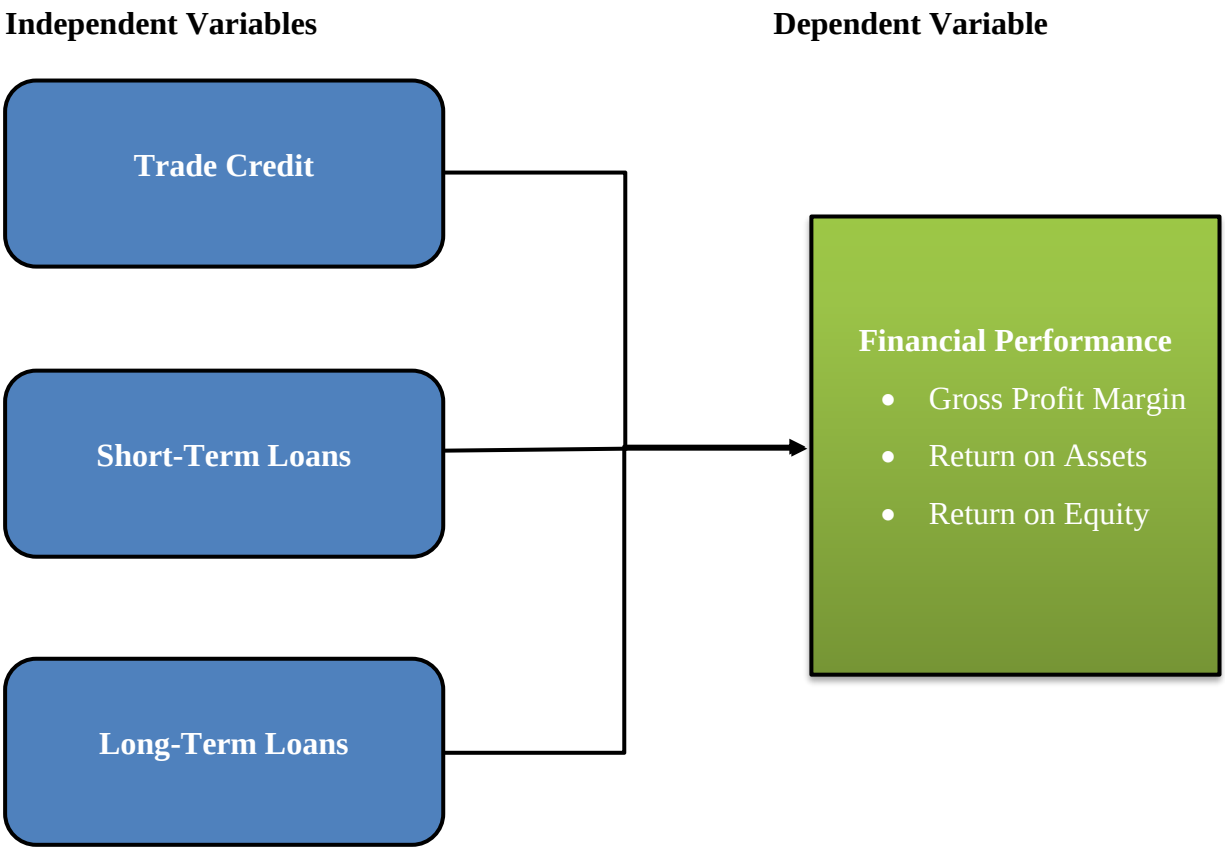

Figure 2.1 Conceptual Framework

Source: Researcher

The relationship of the independent variable is reviewed to establish if there is any relationship between its identified constructs and financial performance.

2.11 Chapter Conclusion

The reviews performed on different articles, papers and literary works, highlighted differing views on the effects of capital structure on the financial performance of SMEs. These differing results ranged from positive, negative to no relationship between the debt financing options and the financial performance variables, measured in terms of trade credit, short-term loan, and long-term loan, on one hand and ROA, ROE and GP margin on the other. The next chapter will provide the research methodology for this study.

RESEARCH METHODOLOGY

3.1 Introduction

This section concentrates on the research methodology. The prime advance is data collection and the strategies utilized to gather and investigate the data, portraying extent of study, parameters for the sample size and in addition recognizing potential impediments for the research.

3.2 Population

Malhotra, Agarwal, and Peterson, (1996) characterize populace as the total of all components, sharing some basic arrangement of qualities which involve the universe with the end goal of the advertising research issue. Wegner, (2010) characterizes populace as the collection of all perceptions of an irregular variable under study and about which one is attempting to reach determinations. Populace is the aggregate collection of components about which the study wants to make mediation (Jonker & Pennink, 2010). The populace for this study involves 52 small cap organizations listed on the JSE's AltX board as of 6 February 2018, as obtained directly from the JSE Primary and Capital Markets section (Appendix 1). However, a certain criterion must be met to derive a sample population relevant to this study.

3.3 Sampling

The study is to determine the effect of capital structure on the performance of small cap companies in South Africa, therefore the following criterion is used to derive the sample:

1. Number of employees – as per the definition of SME per The Act, maximum number of employees is 200. However, all the companies in the population satisfy this criterion given that the AltX is a bourse for SMEs. No adjustment is therefore made.
2. Place of incorporation – the company should be a South African entity. As such all foreign registered companies will be excluded, and 8 (eight) foreign companies (Appendix 2) will not form part of the sample.
3. Capital requirements – the JSE defines small cap as companies with market cap less than that of the top 100 listed companies, or as companies with a market cap below R1billion ("Small, medium and large caps - JSE," 2018). For the purpose of this study, small-cap companies are defined as companies with a capitalization below R1

billion. Based on this criterion, 3 (three) local firms will not form part of the sample as they do not satisfy the definition of small cap (Appendix 4).

4. Type of industry – the services industry has a different capital structure (typically they don't have trade credit, short-term and or-term debt). Moreover, the performance indicators used in this industry will not be relevant for this study, with GP margin in particular, and as such the financial and service industries will be excluded from the analysis because including these firms will distort the results. In total, 11 (eleven) local SME's will be excluded from the sample (Appendix 3).

After exclusions based on the above criteria, the sample size for this study is set at 30 (thirty) small cap companies. These companies form the basis of the sample to evaluate the effects of capital structure on company performance of small cap companies in South Africa. Multiple regression model will be utilised on the data gathered to draw conclusions on the associations and relationships between the dependent and independent variables. The dependent variables of ROA, ROE and GP margin will be tested for their association with the multiple independent variables of trade credit, short-term debt and long-term debt. The following multiple regression equation will be used:

$$Y_{i,t} = \beta_0 + \beta_1 X_{i,t} + \beta_2 CONT_{i,t} + \varepsilon_{i,t}$$

Where: $Y_{i,t}$ = SCC performance as dependant variable (ROA, ROE and GP Margin) at time (t)

$X_{i,t}$ = Capital structure as independent variable (trade credit, short-term debt and long-term debt) at time (t)

$CONT_{i,t}$ = Control variable at time (t)

β_o = Intercept or constant

$\varepsilon_{i,t}$ = Error term

β_i= Regression coefficients or slope of the regression line of the independent variables (trade credit, short-term debt and long-term debt). They indicate the relationship between the independent variables and the dependent variable

ROA = Net Profit after tax / Total Assets

ROE = Net Profit after tax / Equity

GP Margin = Gross Profit / Revenue

Trade Payable = Trade Payables / Total Assets

Short-Term Debt = Short-Term Debt / Total Assets

Long-Term Debt = Long-Term Debt / Total Assets

The above independent variables are measured based on similar work performed by other researchers on the topic, in particular Abor (2007). Firm size was included as the variable to control for firm characteristics and was derived by the natural log of sales at time (t) (Margaritis & Psillaki, 2010).

3.4 Data Collection, Frequency and Choice of Data

The study uses the financial reports available for companies with low capitalization listed on the JSE's AltX. This implies that the study uses secondary data in the form of published financial reports of the companies listed on the JSE's AltX, which will have been compiled to comply with The Companies Act, No 71 of 2008 as well as the International Financial Reporting Standards as required by JSE, thereby enhancing the reliability of the data. These reports will be accessed through IRESS Research Domain, which is considered a highly acceptable source for financial analysis, and moreover, this source can be easily verified thereby enhancing its credibility. IRESS will also be used to verify the ratios to be calculated.

To assess the performance and to determine the capital structure of the sampled companies, available financial reports for the financial periods ending 2015, 2016 and 2017 will be used. A 3-year period was chosen for this study to avoid making findings based on either a good or a bad financial year for the sampled entities, which is possible should results from only one financial year is used. A longer period was also avoided since companies list on the AltX with the objective of being groomed to eventually list on the main bourse of the JSE. The total possible or expected observations will be 90.

3.5 Validity and Reliability

For any scientific research to be reliable, the data should be valid and reliable. Reliability can essentially be depicted as consistency of estimations. As per Bryman and Bell, (2015), reliability alludes to the consistency of estimation ideas. The truth is whether the pointer or set of indicators intended for measuring the idea truly measures this idea (Bryman & Bell, 2015). The question is answered: how much have we quantified what we expect to gauge

utilizing the research strategy? The researcher used financial reports compiled according to South African legislature and the harmonised IFRS reporting standards. To ensure that the information was not biased, these reports will also have been independently reviewed by a qualified person in the form of an external Auditor. This data obtained from a reputable source conforms to the requirement for reliable data and enhanced validity as the data will be consistent.

Furthermore, to ensure validity of the data, the researcher gathered the data using appropriate methods by deducing the ROA, ROE, GPM, short-term debt, long-term debt and trade credit ratios from the financial statements of each of the sampled 30 JSE AltX-listed companies that were used in this study. The calculated results were compared to data as reported on IRESS. The researcher related the data and findings to the three hypotheses of this study, namely whether that, H1: There is no relationship between trade credit and financial performance of a firm; H2: There is no relationship between short-term debt and financial performance of a company; H3: There is no relationship between long-term debt and financial performance of a firm.

3.6 Limitations

It is difficult to access the financial records of unlisted entities as the data is confidential and delicate. As such, the research is limited to small cap listed organizations, which will speak to SME's in South Africa. This was a supposition made, which may not really be a genuine representation of SME's in the country.

In addition, a sample was drawn from entities which are listed on the JSE AltX hence a limitation on the sample size as not many entities list on this bourse. Moreover, on the AltX, companies list and when they can meet the listing requirements of the main bourse, they then de-list in order to list on the JSE main bourse. This means companies list on the AltX board temporarily, which puts a limitation on the data period and on the completeness of the data as some firms in the sample did not have all the data for the years under the study. This analysis was therefore performed using data of 13 small cap firms, hence 39 observations. Firms which had a missing observation were excluded from the analysis.

RESEARCH FINDINGS, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter analyses the three years' financial data collected from the financial reports of the sampled small cap companies on the JSE AltX. The section is presented as follows: sub-section 4.2 is the descriptive statistics; 4.3 presents the data analysis methods; 4.4 are the hypothesis tests and 4.5 is the chapter conclusion.

4.2 Descriptive Statistics

According to Zikmund, Babin, Carr, and Griffin, (2013) descriptive statistics or analysis is a transformation of the sample data that explains the basic characteristics like central tendency, distribution and variability. Therefore, this section presented the descriptive statistics of the research variables.

4.2.1 Financial Performance Descriptive Statistics

This section sought to analyse and discuss the statistics of the financial performance ratio used in this study to establish the performance of the small cap companies in South Africa. The financial ratios used in this study were ROA, ROE as well as GP margin and this section will analyse and discuss their minimum, maximum, mean and standard deviation. This was in line with Hashemi (2013) who posits that the approaches for financial performance measures include: GP margin calculated as gross income divided by revenue and ROA calculated as net earnings divided by total assets. The results are shown in table 4.1 on the next page.

Table 4.1 Descriptive Statistics – Performance

	N	Mean	Minimum	Maximum	Std. Deviation
Panel 1 (2017)					
GP Margin	13	0.116078	-0.20677	0.386148	0.151298
Return on Assets	13	0.006097	-0.33956	0.262970	0.164024
Return on Equity	13	-0.213195	-2.86725	0.408865	0.844041
Panel 2 (2016)					
GP Margin	13	0.153056	-0.00959	0.353353	0.120164
Return on Assets	13	0.029590	-0.16949	0.230842	0.107551
Return on Equity	13	0.027430	-0.61161	0.701050	0.322526
Panel 3 (2015)					
GP Margin	13	0.144900	-0.03490	0.319471	0.109633
Return on Assets	13	0.022304	-0.17464	0.184992	0.091456
Return on Equity	13	0.070081	-0.37280	0.676519	0.243430

In Table 4.1 above, the means for ROA for the small cap companies which were sampled in this study were 0.6% (2017); 3.0% (2016) and 2.2% (2015) with the minimums being -34.0% (2017); -16.9% (2016) and -17.5% (2015)- whilst the maximums were 26.3%; 23.1% and 18.5% for years 2017, 2016 and 2015 respectively. According to Harash et al., (2014) ROA ratio shows how efficiently a firm uses its assets to generate income stream. Therefore, this entails that small cap companies in South Africa were making percentage profits in relation to their overall resources at an average of 0.6% per annum in 2017, down from 3.0% in 2016 and 2.2% in 2015.

Furthermore, ROE is defined by Muchiri et al., (2016) as a measure of profitability that calculates the amount of Rands of profit generated by a company per each Rand of shareholder's equity. ROE is derived from the formula of net income divided by shareholders' equity. The results in the table above show that for the years 2017, 2016 and 2015 the mean ROE was -21.3%; 2.7% and 7.0% respectively. This shows that in the 3-year period of the study, shareholders are gradually losing their wealth

In terms of GP margin, the mean was 11.6% in 2017, 15.3% in 2016 and 14.5% in 2015. According to Harash et al. (2014) GP margin shows a company's financial health as well as profitability of the firm by revealing the proportion of money left over from revenues after accounting for the cost of goods sold. Therefore, this entails that the average money left over

from the revenues of the small cap companies in South Africa, after accounting for their cost of goods, ranged from 11.6% to 15.3% in the years 2015 to 2017 financial years.

Consequently, the table above shows that in terms of performance, the sampled companies averaged between 11.6% to 15.3% GP margins, whilst they were earning an average ROA of between 0.6% and 3.0%. However, the return to shareholders' equity decreased from a positive of 7.0% to average negative returns of 21.3% in 2017. As a result, one can reasonably note from the above findings that in terms of performance the average small cap company in South Africa has been marginally inefficient in their use of assets and equity, but they were still generally financially healthy.

4.2.2 Capital Structure Descriptive Statistics

This section sought to analyse and discuss the statistics of the capital structure ratios used in this study to establish the performance of the 30 small cap companies in South Africa. The capital structure used in this study were short-term debt, long-term debt as well as trade credit and this section will analyse and discuss their minimum, maximum, mean and standard deviation. This is in agreement with Harash et al. (2014) who state that debt financing is measured in terms of long-term and short-term debt as well as trade credit whose ratios of usage are established by dividing each portion of debt by the total debt. The results are shown in table 4.2 below.

Table 4.2 Descriptive Statistics – Capital Structure

	N	Mean	Minimum	Maximum	Std. Deviation
Panel 1 (2017)					
Long-Term Loan	13	0.091291	0.00000	0.383351	0.118013
Short-Term Loan	13	0.119446	0.00000	0.384745	0.125352
Traded Credit	13	0.134292	0.01348	0.321485	0.095720
Firm Size	13	12.2611	10.6740	14.7327	0.9653
Panel 2 (2016)					
Long-Term Loan	13	0.070690	0.00000	0.322293	0.100152
Short-Term Loan	13	0.075605	0.00000	0.245050	0.080421
Short-Term Loan	13	0.148729	0.03322	0.381860	0.099461
Firm Size	13	12.2288	10.5524	14.8002	1.0556
Panel 3 (2015)					
Long-Term Loan	13	0.061642	0.00000	0.414644	0.115315
Short-Term Loan	13	0.105006	0.00000	0.351510	0.111900
Short-Term Loan	13	0.118044	0.01291	0.330289	0.088200
Firm Size	13	12.1784	10.5388	15.0030	1.1158

Table 4.2 on the previous page shows that the mean for trade credit ratio from the data analysed was 13.4% in 2017; 14.9% in 2016 and 11.8% in 2015 whilst the means for the short-term debt ratio was 11.9% (2017), 7.6% (2016) and 10.5% (2015). The mean for long-term debt ratio for 2017, 2016 and 2015 was 9.1%, 7.1% and 6.2% for the respective years. Therefore, in terms of capital structure of the small cap companies, trade credit had the highest mean for the years followed by short-term debt and then finally long-term debt.

Hence, one can reasonably conclude from the findings above, that in terms of capital structure, trade credit is the most prevalent source of funding for small cap companies in South Africa. These findings are in line with Shin-ichi, Munehisa, and Kentaro, (2006) as well as Cuñat and Garcia-Appendini, (2012) as they concur that trade credit is one of the key debt financing options for SMEs, as it does not need to be secured and customers' previous credit-worthiness is not required. Moreover Obuya, (2017) also adds that trade credit is advantageous to SMEs because of reduced cost compared to transactions which require instant payment on delivery of goods. On the other hand, the findings are contrary to Amirkhani and Fard (2009) who argue that in fact the SMEs use more of long-term debt expecting that financial performance shall improve.

4.3 Data Analysis Methods

In this study, the dependent variables were financial indicators that were determined by the GP margin, ROE and the effectiveness of assets through ROA. My independent variables were debt financing in the form of trade credit, short-term debt and long-term debts. The regression analysis and correlation tools were used to analyse the data gathered. The correlation coefficient was used to determine the degree of correlation between efficiency and the expansion of commercial, short-term and long-term debt financing transactions.

4.3.1 Normality Test

The researcher conducted a normality test to establish whether the data was unevenly or evenly distributed. This test assesses if the data sample is normally distributed. The results are shown in table 4.3 on the next page.

Table 4.3.1 Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Performance	.118	150	.200*	.935	150	.058
Capital Structure	.206	150	.102	.780	150	.051

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 4.3.1 above shows that the significance values for the independent and dependent variables were both greater than 0.05 which entails that the data was normally distributed or linear in nature. Therefore, this means that this study will use inferential statistics to analyse the data in the form of multiple linear regression as well as a Pearson correlation test. The results are discussed in the sections below and illustrated in tables 4.4 to 4.6 below.

4.3.2 Pearson's Correlation Test

The reason for a correlation analysis is to determine whether variables have a propensity to move into similar or congruent directions of each other. For instance, if the variables move in the same direction, they would be considered to have a positive correlation, whilst if they move in an opposing direction of each other they are considered to have a negative correlation. Furthermore, this analysis also displays a cluster of points which show the strength and linear interrelation between variables. The results are shown in the tables 4.3.2a, 4.3.2b and 4.3.2c below.

Table 4.3.2a Correlation Matrix (ROA dependent variable)

	Return on Asset	**Trade Credit**	**Short-Term Loan**	**Long-Term Loan**	**SIZE**
Return on Asset	**1.000**				
Trade Credit	-0.071	**1.000**			
Short-Term loan	-0.111*	-0.456***	**1.000**		
Long-Term loan	**-0. 593****	**-0.247*****	**0.391*****	**1.000**	
SIZE	-0.012	0.352	0.545	0.060	**1.000**

Notes:

***, ** and * denote significance level at 1%, 5% and 10% respectively.

Table 4.3.2a above shows that there was a negative relationship between long-term loans and small cap firms' performances as measured by ROA (-0.593). The negative relationship was

found to be strong, based on the correlation guide suggested by Cohen (1988). This is also the case with the relationships between short-term debt and ROA (-0.111) as well as trade credit and ROA (-0.071). However, the relationships of trade credit and short-term debt with ROA the associations are negative and small as the correlation coefficients are less than 0.30 (Cohen, 1988).

Hence, this indicates that there is a significant link between how efficiently the firms use their assets in order to generate income (ROA) and the long-term loan funding mechanism used by these small cap companies. Nonetheless, this was not the case for trade credit and short-term loans vs ROA. These findings are contrary with García-Teruel and Martínez-Solano, (2007) who believe that debt is positively correlated with a firm's growth opportunities. The results signify that an increase in trade credit, long-term or short-term debt by small cap companies in South Africa could be associated with a decrease in their ROA.

Table 4.3.2b Correlation Matrix (ROE dependent variable)

	Return on Equity	Trade Credit	Short-Term Loan	Long-Term Loan	SIZE
Return on Equity	**1**				
Trade Credit	-0.225	**1**			
Short-Term loan	-0.412***	0.141***	**1**		
Long-Term loan	**-0.308**	**0.094*** **	**0.328*** **	**1**	
SIZE	-0.081	0.352	0.545	**0.060**	**1**

Notes:

***, ** and * denote significance level at 1%, 5% and 10% respectively.

According to the table 4.3.2b above there was negative relationships between long-term debt and ROE (0.308); short-term loans and ROE (0.412) and between trade credit and ROE (0.225). The relationships ranged from small (trade credit with ROE) to moderate (short-term and long-term loans and ROE) as the correlation coefficients were above 0.3 with a high of 0.412.

Hence, this entails that in terms of small cap companies' capital structure, all the variable (trade credit, short-term and long-term debts) are inversely associated with how many Rands of profit the company generates with each Rand of shareholders' equity (ROE). On the other hand, the findings are contrary to García-Teruel and Martínez-Solano, (2007) who argued that short-term debt is positively correlated with a firm's growth opportunities.

Table 4.3.2c Correlation Matrix (GP margin dependent variable)

	Gross Profit Margin	Trade Credit	Short-Term Loan	Long-Term Loan	SIZE
Gross Profit Margin	**1**				
Trade Credit	-0.218	**1**			
Short-Term loan	-0.272	0.141***	**1**		
Long-Term loan	**-0.290**	**0.094*** **	**0.328*** **	**1**	
SIZE	-0.121	0.352	0.545	**0.060**	**1**

Notes:
***, ** and * denote significance level at 1%, 5% and 10% respectively.

The table 4.3.2c above shows that there were small relationships between GP margin and all the capital structure variables in the form of trade credit (0.218), short-term loans (0.272) and long-term loans (0.290). In all cases the association between small cap companies' capital structure and a company's financial health and profitability (GP margin) are negative.

Through examination of the correlation coefficients in the matrices above in tables 4.3.2a to 4.3.2c, no large correlation coefficients between the predictor variables were found. The highest coefficient was found between short-term loan and trade credit of 0.456, which is way outside the multi-collinearity range of 0.8 – 1.0 (Berry & Feldman, 1985). Based on this work, there is no multi-collinearity in the variables, and more tests will be performed on the relationship of the dependent variable and independent variables through multiple regression analysis.

4.3.3 Multiple Regression Analysis

A multiple regression analysis was undertaken by the researcher to test the hypotheses as the study sought to simultaneously analyse the impact and effects of the association of more than two independent variables and one dependent variable. Performance, being the dependent variable will be represented by three performance determinants namely ROA, ROE and GP margin. These determinants were each tested in relationship to multiple independent variables namely long-term debt, short-term debt and trade credit, with firm size as the control variable. The results will be analysed and discussed in the three sections as follows:

(a) Effects of capital structure on ROA

This section tests the effect that capital structure, in the form of trade credit, long-term debt and short-term debt, has on performance of small cap companies, in the form of ROA. The results are shown in table 4.3.3a below:

Table 4.3.3a Regression Coefficients for Capital Structure (ROA dependent variable)

Dependent Variable: ROA				
Independent Variable	**Coefficient**	**Std. Error**	**t**	**P>|t|**
Trade credit	-0.062	0.211	-0.294	0.770
Short-term loan	-0.323	0.207	-1.563	0.127
Long-term loan	-0.462	0.167	-2.768	0.009
SIZE	0.022	0.022	1.013	0.318
Constant	-0.173	0.250	-0.691	0.495
F (4.34)	2.978			
Prob>F	0.033			
Number of observations	39			
R-squared	0.259			

The multiple regression model statistically significantly predicted ROA, F (4.34) = 2.978; Prob > F = 0.033, of which $p<0.05$. The data is a good fit for the model, as indicated by the ANOVA table sig-value of 0.033 ($p<0.05$). Furthermore, the R-Squared value is 0.259 which means that there is a moderate correlation between the actual ROA and that predicted by the regression model:

ROA = 0.022 size - 0.062 *trade credit* - 0.323 *short-term debt* – 0.462 *long-term debt* - 0.173.

This implies that 25.9% of small cap companies' performance in the form of ROA is explained by trade credit, short-term debt and long-term debt.

Table 4.3.3a above shows that the coefficient for the constant was negative and statistically insignificant ($\beta= -0.173$; $p>0.05$). This entails that trade credit; short-term debt and long-term debt combined have a statistically insignificant negative effect on the ROA of small cap companies in South Africa.

From the table above, the B-Coefficient for trade credit was negative and statistically insignificant as represented by β of -0.062 and $P>|t| = 0.770$ **(**$p>0.05$). This implies that trade

credit has a negative but statistically insignificant effect on the ROA of small cap companies in South Africa. Therefore, trade credit independently has no statistically significant effect on small cap companies' ROA in South Africa.

Likewise, the table above shows that the B-Coefficient for short-term debt was negative and statistically insignificant (β= -0.323; $p>0.05$). This means that short-term debt has a negative but statistically insignificant effect on the ROA of small cap companies in South Africa. Therefore, short-term debt in isolation has no statistically significant effect on small cap companies' ROA in South Africa. These findings are contrary to Weinraub and Visscher (1998); as well as Axelsson et al. (2016) who established that short-term debt is positively related to a firm's profitability.

However, as per the table above, the B-Coefficient for long-term debt shows that it has a negative and statistically significant effect on ROA of small cap companies in South Africa (β= -0.462; $p<0.05$). In essence, the impact is that an increase in a single unit of long-term loan could lead to a decrease in ROA of 0.462 units for small cap companies in South Africa. This is in line with Abor (2007) who argued that long-term debt has a negative effect on ROA.

Therefore, the findings in this section show that the data was a good fit for the model, as its sig-value of 0.033 was less than the significance level. Furthermore, trade credit and short-term loans independently have no statistically significant effect on small cap companies' ROA. This was also the case with the constant as it was also noted that trade credit, short-term debt and long-term debt collectively have a negative and statistically significant effect on the ROA of small cap companies in South Africa. On the other hand, long-term debt individually has a negative and statistically significant effect on the ROA of small cap companies in South Africa. This explains that trade credit, short-term and long-term loans are an expensive mode of finance.

(b) Effects of capital structure on ROE

This section tests the effect of capital structure, in the form of trade credit, short-term debt and long-term debt, has on the performance of small cap companies, in the form of ROE. The results are shown in table 4.8 on the next page:

Table 4.3.3b Regression Coefficients for Capital Structure (ROE dependent variable)

Dependent Variable: ROE				
Independent Variable	**Coefficient**	**Std. Error**	**t**	**P>|t|**
Trade credit	-0.773	0.923	-0.837	0.408
Short-term loan	-2.343	0.905	-2.588	0.014
Long-term loan	-1.211	0.731	-1.656	0.107
SIZE	0.123	0.095	1.297	0.203
Constant	-0.110	1.097	-1.012	0.319
F (4.34)	3.245			
Prob>F	0.023			
Number of observations	39			
R-squared	0.276			

According to table 4.3.3b above the F–test for the null hypothesis that none of the capital structure variables are related to ROE is represented by F (4.34) = 3.245, p = 0.023. We can reject this null hypothesis at the 5% significant level since $p < 0.05$ and conclude that the multiple regression model statistically significantly predict ROE. The data is a good fit for the model. Moreover, the R-Squared value is 0.276 which points to a moderate correlation. This implies that only 27.6 % of ROE at small cap companies in South Africa is explained by trade credit, short-term debt and long-term debt. The following model predicts ROE:

ROE = 0.123 size - 0.773 *trade credit* – 2.343 *short-term debt* – 1.211 *long-term debt* - 0.111.

Table 4.3.3b above shows that the unstandardized B-Coefficient for the constant was negative and statistically insignificant (β= -0.11; $p<0.05$). This entails that trade credit, short-term debt and long-term debt combined have a negative and statistically significant effect on the ROE of small cap companies in South Africa. This further confirms that trade credit, short-term debt and long-term debt are expensive to small cap companies' ROE in South Africa.

Moreover, the table above also shows that the unstandardized B-Coefficient for trade credit was (β= -773; $p>0.05$) negative and statistically insignificant. This entails that trade credit on its own has no statistically significant effect on small cap companies' ROE in South Africa.

Furthermore, the table above shows that the unstandardized B-Coefficient for short-term debt was (β= -2.343; $p<0.05$) negative and statistically significant. This entails that short-term debt has a negative and statistically significant effect on the ROE of small cap companies in South

Africa. However, the findings are in disagreement with studies conducted by Weinraub and Visscher (1998); Abor (2007 as well as Axelsson et al. (2016) who all established that short-term debt is positively related to a firm's profitability.

Additionally, according to the table above, the unstandardized B-Coefficient for long-term debt was (β= -1.211; p>0.05) negative and statistically insignificant. This means that long-term debt has a negative but statistically insignificant effect on the ROE of small-cap companies in South Africa. This is also contrary to the findings of Obuya (2017); who posits that long-term debt has a positive effect on financial performance. However, the findings are in line with the conclusions reached by Huang and Song, (2006); and Abor, (2007), who argue that long-term debt has a negative effect on financial performance given that this debt is relatively expensive .

For that reason, the findings in this section show that the data was a good fit for the model and that short-term debt has a statistically significant negative effect on small cap companies' ROE in South Africa. The results also confirmed a positive relationship of firm size and firm performance, in line with the findings of Abor (2007),

(c) Effects of capital structure on GP margin

This section tests the effect of capital structure, in the form of trade credit, short-term debt and long-term debt, has on performance of small cap companies, in the form of GP margin. The results are shown in table 4.3.3c below:

Table 4.3.3c Regression Coefficients for Capital Structure (GP margin dependent variable)

Dependent Variable: GP Margin				
Independent Variable	**Coefficient**	**Std. Error**	**t**	**P>|t|**
Trade credit	-0.196	0.232	-0.847	0.403
Short-term loan	-0.270	0.227	-1.186	0.244
Long-term loan	-0.286	0.184	-1.559	0.128
SIZE	0.009	0.024	0.360	0.721
Constant	0.108	0.275	0.392	0.698
F (4.34)	1.587			
Prob>F	0.200			
Number of observations	39			
R-squared	0.157			

The multiple regression model does not statistically significantly predict GP margin, F (4.34); p>0.05. The data is also not a good fit for the model, as indicated by the ANOVA table sig-value of 0.200 (p>0.05). Furthermore, the R-Squared value is 0.157 which implies that only 15.7 % of small cap companies' performance in the form of GP margin at small cap companies in South Africa is explained by trade credit, short-term debt and long-term debt.

Table 4.3.3c above shows that the unstandardized B-Coefficient for the constant was (β= 0.108; p>0.05) positive and statistically insignificant. This entails that trade credit, short-term debt and long-term debt combined have a positive and statistically insignificant effect on the GP margin of small cap companies in South Africa.

The table above also shows that the unstandardized B-Coefficient for trade credit was negative but statistically insignificant (β= -0.196; p>0.05). This is also the case with the unstandardized B-Coefficient for short-term debt and long-term debt which are negative and statistically insignificant (β= -0.27; p>0.05 and β= -0.286; p>0.05 for short-term and long-term debts respectively). Therefore, all the capital structure variables have no statistically significant effect on small cap companies' GP margin in South Africa.

On short-term loans the findings are contrary to Weinraub and Visscher (1998); as well as Axelsson et al. (2016) who argue that short-term debt is positively related to firm's profitability. However, the results are in line with Huang and Song (2006); and Abor (2007) who argue that long-term debt has a negative effect on financial performance. However, to the contrary, Obuya (2017); who confirmed a positive effect of long-term debt on financial performance.

Therefore, the findings in this section show that all the capital structure variables individually and combined have a negative and statistically insignificant effect on the GP margin of small cap companies in South Africa. However, firm size is positively related to firm GP margin.

4.4 Hypotheses Tests

This research was guided by the following research hypotheses:

H_1: There is no relationship between trade credit and financial performance of a firm

H_2: There is no relationship between short-term debt and financial performance of a company.
H_3: There is no relationship between long-term debt and financial performance of a firm.

Therefore, this section tests these three hypotheses using the findings from the inferential statistics analysed and discussed earlier above.

The first hypothesis (H_1) predicted that there was no relationship between trade credit and financial performance of a firm. The correlation test results showed that small cap companies' trade credit has no significant relationship with the performance variables (ROA, ROE and GP margin). Furthermore, the regression analysis results also noted that trade credit has no statistically significant effect on the financial performance variables (ROA, ROE and GP margin). Therefore, this study **confirms** the hypothesis that there was no relationship between trade credit in isolation and the financial performance of a firm.

The second hypothesis (H_2) predicted that there was no relationship between short-term debt and the financial performance of a firm. The correlation test results showed that small cap companies' short-term debt has no significant relationship with the performance variables ROA and GP margin, with a moderate relationship with ROE. Furthermore, the regression analysis results noted that short-term debt has no statistically significant effect on the financial performance variables (ROA and GP margin). On the other hand, it was established that short-term debt has a statistically significant effect on ROE. Therefore, this study to a large extent **confirms** the hypothesis that there was no relationship between short-term debt and financial performance of a firm, especially ROA and GP margin. However, short-term debt has a statistically significant effect on ROE.

The third hypothesis (H_3) predicted that there was no relationship between long-term debt and financial performance of a firm. The correlation test results showed that small cap companies' long-term debt has a significant negative relationship with the performance variable ROA and a moderate positive relationship with the performance variables ROE. However, there was a small relationship with the performance variable GP margin. The regression analysis results also confirmed that long-term debt has a statistically significant effect on the financial performance variable of ROA. Therefore, this study, to a large extent, **rejects** the hypothesis that there was no relationship between long-term debt and the financial

performance of a firm. Previous researchers came to different conclusions, with Huang and Song, (2006); and Abor (2007) in the studies they conducted concluded that long-term debt has a negative effect on financial performance with Obuya (2017) concluding that long-term debt has a positive effect on financial performance.

4.5 Chapter Conclusion

This chapter analysed and discussed the findings and results from data collected from 3-year financial results of small cap companies listed on the JSE in South Africa, covering the period 2015 to 2017. The financial ratios used in this study were ROA, ROE as well as GP margin whilst capital structure used in this study were short-term loans, long-term loans, as well as trade credit. This chapter analysed and discussed their minimum, maximum, mean and standard deviations. Moreover, the researcher undertook inferential analysis through the use of correlation tests to determine the relationship between financial performance ratios as dependent variables and the independent variables (trade credit, short-term debt and long-term debt) as well as multiple regression analysis which established the effect and impact of capital structure on the performance of small cap companies in South Africa. Furthermore, this chapter also tested the three hypotheses which had been proposed in the first chapter and they were either rejected or confirmed using the inferential analysis findings. The next chapter will provide the conclusions for this study derived from the findings of the study.

RESEARCH CONCLUSIONS

5.1 Overview of the Study

The previous chapter analysed and discussed the findings and results from the secondary data collected from the financial reports of small cap companies listed on the JSE AltX. This chapter provides a summary of findings for the study as well as provide conclusions in line with the objectives of the study. This chapter also provides recommendations for future research.

This study sought to evaluate the effects of capital structure on company performance of small cap companies in South Africa. The objective of the study was to examine the effect of capital structure of a firm on its financial performance. The sub-objectives were, namely, examining the effect of trade credit on the financial performance of small cap companies; investigating the relationship between short-term debt and financial performance on small cap companies, as well as analysing the relationship between long-term debt and the financial performance of small cap companies. This research was guided by three research hypotheses, namely, that there is no relationship between trade credit and the financial performance of a firm; there is no relationship between short-term debt and the financial performance of a company; as well as there is no relationship between long-term debt and the financial performance of a firm.

Theoretical, empirical and conceptual literature was reviewed in this study to identify and examine what has been done by other scholars in relation to the topic. This review also assisted the researcher to limit the research problem and to define it better. Quantitative research was used to determine a relationship between independent variables (trade finance, long-term debt and short-term debt) and the dependent variable (financial performance). The study used secondary data of audited financial reports from sampled small cap companies listed on the JSE's AltX, which were a representation of SMEs in South Africa. The secondary data collected from the 3-year financial reports covering financial years ended 2015 to 2017 was analysed and discussed using descriptive statistics. Whilst inferential analysis was undertaken using correlation tests and multiple regression analysis and these results were also used to test the study's three hypotheses.

5.2 Summary of findings

The following findings were inferred from the analysis and discussion of the study's results:

- It was established that in terms of performance, the sampled companies' average proportion of money left over from their revenue after accounting for cost of goods sold was 11.6% in 2017, 15.3% in 2016 and 14.5% in 2015. Shareholders made an average loss of 21.3% per each Rand of shareholder's equity invested in 2017, down from average positive returns of 2.7% in 2016 and 7% in 2015. The average return in relation to overall resources for 2017, 2016 and 2015 was at 0.6%, 2.9% and 2.2% for the respective years. As a result, one can reasonably note from the above findings that the average small cap company in South Africa has been marginally inefficient in their utilisation of shareholder's equity but were still generally financially healthy.
- The study also established that in terms of capital structure of the small cap companies in South Africa, trade credit (2017: 13.4%; 2016: 14.9%; and 2015: 11.8%) had the highest mean followed by short-term loans (2017: 11.9%; 2016: 7.6%; and 2015: 10.5%) and then finally long-term debt (2017: 9.1%; 2016: 7.1%; and 2015: 6.2%). This entails that in ranking capital variables, we have trade credit, short-term debt and long-term debt in ranks 1, 2 and 3 respectively.
- Furthermore, according to the correlation analysis test findings, it was discovered that there is a strong link between how efficiently the companies use their assets in order to generate income (ROA) and the capital structure variable of long-term loans. This was not the case for ROA and trade credit and short-term loans where the relationships were small.
- Additionally, short-term and long-term loans have a moderate relationship with how many Rands of profit the company generates with each Rand of shareholders' equity (ROE) and the associations are negative. However, there was a small association between capital structure (in the form of trade credit) and ROE.
- The study further established that there are only small associations between the small cap companies' capital structure and a company's profitability (GP margin).
- The multiple regression analysis also established that trade credit and short-term debt independently have no statistically significant effect on small cap companies' ROA. This was also the case with the constant as it was noted that trade credit, short-term and long-term loans collectively have a negative and statistically insignificant effect on the ROA of small cap companies. On the other hand, a long-term loan individually

has a negative and statistically significant effect on the ROA of small cap companies in South Africa.

- The multiple regression analysis findings also showed that short-term loans have a statistically significant effect on South African small cap companies' ROE. However, trade credit and long-term loans individually and all the capital structure variables as a collective have no statistically significant effect on ROE.
- Moreover, the study established that trade credit, short-term and long-term debts individually and collectively have a negative and statistically insignificant effect on the GP margin of small cap companies in South Africa. All regression results also confirmed a positive association between firm size and the performance of small cap firms.

5.3 Conclusions

The following conclusions were drawn from the study's findings, in line with the objectives of the study:

5.3.1 Hypothesis test 1: *Examining the effect of trade finance on the financial performance of SMEs.*

From the study findings one can conclude that trade credit is the most dominant source of capital used by small cap companies in South Africa. However, it was also noted that trade credit has no statistically significant relationship with or impact on the performance of small cap companies in South Africa.

The first hypothesis (H_1) predicted that there was no relationship between trade credit and financial performance of a firm. Therefore, in line with the above conclusion this study **confirms** the hypothesis that there was no relationship between trade credit and financial performance of a firm.

5.3.2 Hypothesis test 2: *Investigating the relationship between short-term debt and financial performance on SMEs.*

Short-term debt was noted to rank second as the most used source of capital by small cap companies in South Africa. It was also noted that short-term debt has no statistically

significant relationship with either the ROA or GP margin of small cap companies in South Africa. However, short-term loans have a statistically significant effect on the ROE.

The second hypothesis (H_2) predicted that there was no relationship between short-term debt and the financial performance of a firm. Therefore, from the above conclusion, this study to a larger extent **rejects** the hypothesis that there was no relationship between short-term debt and the financial performance of a firm given that a significant relationship was observed between short-term loans and ROE.

5.3.3 Hypothesis test 3: *Analysing the relationship between long-term debt and financial performance of SMEs.*

The study concludes that long-term debt was the least most used source of capital by small cap companies in South Africa. In addition, long-term debt has a statistically significant effect with all the performance variables ROA, ROE and GP margin. The relationships between long-term loans with the performance variables ROA, ROE and GP margin were strong, moderate and small in respective cases.

The third hypothesis (H_3) predicted that there was no relationship between long-term debt and the financial performance of a firm. However, according to the conclusions made in the previous section, this study **rejects** to larger extent the hypothesis that there was no relationship between long-term debt and financial performance of a firm as it was established that long-term debt has a strong association with the financial performance variables of ROA, and a moderate relationship with ROE. Furthermore, long-term debt also has a statistically significant effect on the performance variable of ROA.

5.4 Recommendations for future research

This study raised a number of issues that could be addressed by future research. In connection to the SME sector, the researcher believes that SMEs could be grouped into various industries and compared. This could determine the effect of the utilisation of trade finance on certain industries, as there are some industries, for example the financial sector, where the effect of trade finance has scarcely been established. Furthermore, a qualitative study could be undertaken to investigate the management of SMEs, which would enable the scrutiny of their perception on external capital sources as well as to the reasons why they make use of certain

types of debt at their companies. Therefore, this would develop an understanding of the human factor when deciding on external sources of financing for these SMEs.

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APPENDICES

StatisticDate	ReportDate	ProcessDatetime	InstrID	Alpha	LongName	ListingDate	Exchange	Market	Board	InsStatus	InsType	MarketCap
2018/02/06	2018/02/06	2018/02/06 16:18	2638	SVB	Silverbridge Holdings	1999/04/14	JSE	EM	AltX	Current	Ordinary	81736459.2
2018/02/06	2018/02/06	2018/02/06 16:18	9121	ACE	Accentuate Limited	2006/11/23	JSE	EM	AltX	Current	Ordinary	83619712.8
2018/02/06	2018/02/06	2018/02/06 16:18	10016	ANS	Ansys Limited	2007/06/07	JSE	EM	AltX	Current	Ordinary	368830656.8
2018/02/06	2018/02/06	2018/02/06 16:18	56768	AVR	Avior Cap Market Holdings Ltd	2017/06/06	JSE	EM	AltX	Current	Ordinary	138970845
2018/02/06	2018/02/06	2018/02/06 16:18	62983	PEM	Pembury Lifestyle Group Ltd	2017/03/31	JSE	EM	AltX	Current	Ordinary	116170375
2018/02/06	2018/02/06	2018/02/06 16:18	68191	AEY	AEP Energy Africa Ltd	2017/06/30	JSE	EM	AltX	Current	Ordinary	0
2018/02/06	2018/02/06	2018/02/06 16:18	9576	AET	Alert Steel Holdings Ltd	2007/03/01	JSE	EM	AltX	Suspended	Ordinary	37999861.68
2018/02/06	2018/02/06	2018/02/06 16:18	10954	CRD	Central Rand Gold Ltd	2007/11/08	JSE	EM	AltX	Suspended	Ordinary	26606995.65
2018/02/06	2018/02/06	2018/02/06 16:18	33808	GAM	Global Asset Management Ltd	2012/12/14	JSE	EM	AltX	Current	Ordinary	183703115
2018/02/06	2018/02/06	2018/02/06 16:18	57541	NRL	Newpark REIT Ltd	2016/02/03	JSE	EM	AltX	Current	Ordinary	650000006.5
2018/02/06	2018/02/06	2018/02/06 16:18	3875	STA	Stratcorp Ltd	2001/12/06	JSE	EM	AltX	Suspended	Ordinary	12300072.54
2018/02/06	2018/02/06	2018/02/06 16:18	8187	PSV	PSV Holdings Ltd	2006/04/21	JSE	EM	AltX	Current	Ordinary	101034340
2018/02/06	2018/02/06	2018/02/06 16:18	9610	TLM	Telemaster Holdings Ltd	2007/03/12	JSE	EM	AltX	Current	Ordinary	26040000
2018/02/06	2018/02/06	2018/02/06 16:18	10363	ILE	Imbalie Beauty Ld	2007/08/21	JSE	EM	AltX	Current	Ordinary	25361569
2018/02/06	2018/02/06	2018/02/06 16:18	11542	TCS	Total Client Services Ltd	2008/04/07	JSE	EM	AltX	Suspended	Ordinary	4901346.9
2018/02/06	2018/02/06	2018/02/06 16:18	15137	BUC	Buffalo Coal Corp	2011/07/28	JSE	EM	AltX	Current	Ordinary	349352021.3

StatisticDate	ReportDate	ProcessDatetime	InstrID	Alpha	LongName	ListingDate	Exchange	Market	Board	InsStatus	InsType	MarketCap
2018/02/06	2018/02/06	2018/02/06 16:18	49190	NVE	NVest Financial Hldgs Ltd	2015/05/29	JSE	EM	AltX	Current	Ordinary	605483444
2018/02/06	2018/02/06	2018/02/06 16:18	55617	ARA	Astoria Investments Ltd	2015/11/25	JSE	EM	AltX	Current	Ordinary	1302924273
2018/02/06	2018/02/06	2018/02/06 16:18	62693	UPL	Universal Partners Ltd	2016/08/11	JSE	EM	AltX	Current	Ordinary	1157602096
2018/02/06	2018/02/06	2018/02/06 16:18	64302	TPF	Transcend Res Prop Fd Ld	2016/12/01	JSE	EM	AltX	Current	Ordinary	404464550.4
2018/02/06	2018/02/06	2018/02/06 16:18	65521	MLD	Mainland Real Estate Ltd	2016/12/09	JSE	EM	AltX	Current	Ordinary	0
2018/02/06	2018/02/06	2018/02/06 16:18	68713	MAP	Master Plastics Limited	2017/05/24	JSE	EM	AltX	Current	Ordinary	188056371.2
2018/02/06	2018/02/06	2018/02/06 16:18	73755	APH	Alphamin Resources Corp	2017/12/15	JSE	EM	AltX	Current	Ordinary	0
2018/02/06	2018/02/06	2018/02/06 16:18	8679	BFS	Blue Financial Services	2006/10/12	JSE	EM	AltX	Suspended	Ordinary	1069870534
2018/02/06	2018/02/06	2018/02/06 16:18	8903	IPS	IPSA Group plc	2006/10/19	JSE	EM	AltX	Suspended	Ordinary	50526918.07
2018/02/06	2018/02/06	2018/02/06 16:18	10788	BSS	BSI Steel Limited	2007/10/24	JSE	EM	AltX	Current	Ordinary	345530398.1
2018/02/06	2018/02/06	2018/02/06 16:18	11033	VUN	Vunani Ltd	2007/11/28	JSE	EM	AltX	Current	Ordinary	461711437.6
2018/02/06	2018/02/06	2018/02/06 16:18	11982	ALH	Alaris HoldingsLtd	2008/07/09	JSE	EM	AltX	Current	Ordinary	163886432.8
2018/02/06	2018/02/06	2018/02/06 16:18	50652	GLI	Go Life International Ltd	2016/11/23	JSE	EM	AltX	Current	Ordinary	585000000
2018/02/06	2018/02/06	2018/02/06 16:18	2585	AHL	AH-Vest Limited	1998/12/21	JSE	EM	AltX	Current	Ordinary	29572266.57
2018/02/06	2018/02/06	2018/02/06 16:18	7360	CMO	Chrometco Ltd	2005/08/12	JSE	EM	AltX	Current	Ordinary	117242868.3
2018/02/06	2018/02/06	2018/02/06 16:18	8120	WEA	WG Wearne Ltd	2006/02/21	JSE	EM	AltX	Current	Ordinary	16583592.78
2018/02/06	2018/02/06	2018/02/06 16:18	10527	RBA	RBA Holdings Ltd	2007/09/20	JSE	EM	AltX	Suspended	Ordinary	111346821
2018/02/06	2018/02/06	2018/02/06 16:18	70781	HET	Heriot REIT Ltd	2017/07/24	JSE	EM	AltX	Current	Ordinary	2716736095
2018/02/06	2018/02/06	2018/02/06 16:18	9236	NUT	Nutritional Holdings Ltd	2006/12/12	JSE	EM	AltX	Current	Ordinary	37433681.79
2018/02/06	2018/02/06	2018/02/06 16:18	10332	BIK	Brikor Ltd	2007/08/07	JSE	EM	AltX	Suspended	Ordinary	58071782.79
2018/02/06	2018/02/06	2018/02/06 16:18	14932	KBO	Kibo Mining plc	2011/05/30	JSE	EM	AltX	Current	Ordinary	415017082.2

StatisticDate	ReportDate	ProcessDatetime	InstrID	Alpha	LongName	ListingDate	Exchange	Market	Board	InsStatus	InsType	MarketCap
2018/02/06	2018/02/06	2018/02/06 16:18	37716	DMCCB	Soapstone Inv Ltd	2013/06/26	JSE	EM	AltX	Suspended	Deb	88000000
2018/02/06	2018/02/06	2018/02/06 16:18	42420	AVL	Advanced Health Ltd	2014/04/25	JSE	EM	AltX	Current	Ordinary	190072365.8
2018/02/06	2018/02/06	2018/02/06 16:18	51178	REN	Renergen Limited	2015/06/09	JSE	EM	AltX	Current	Ordinary	633694661.9
2018/02/06	2018/02/06	2018/02/06 16:18	71943	4SI	4Sight Holdings Ltd	2017/10/19	JSE	EM	AltX	Current	Ordinary	710781009.2
2018/02/06	2018/02/06	2018/02/06 16:18	41295	VIS	Visual International Hldgs Ltd	2014/05/23	JSE	EM	AltX	Current	Ordinary	38295382.4
2018/02/06	2018/02/06	2018/02/06 16:18	45632	ACG	Anchor Group Ltd	2014/09/16	JSE	EM	AltX	Current	Ordinary	751460201.1
2018/02/06	2018/02/06	2018/02/06 16:18	57546	GBI	Gold Brands Inv Ltd	2016/02/12	JSE	EM	AltX	Current	Ordinary	66120000
2018/02/06	2018/02/06	2018/02/06 16:18	73491	CVW	Castleview Prop Fund Ltd	2017/12/20	JSE	EM	AltX	Current	Ordinary	165000000
2018/02/06	2018/02/06	2018/02/06 16:18	2583	ISA	ISA Holdings Ltd	1998/12/15	JSE	EM	AltX	Current	Ordinary	182534074.5
2018/02/06	2018/02/06	2018/02/06 16:18	2611	ADW	African Dawn Capital Ltd	1999/02/18	JSE	EM	AltX	Current	Ordinary	5919757.56
2018/02/06	2018/02/06	2018/02/06 16:18	7755	OAS	Oasis Crescent Prop Fund	2005/11/23	JSE	EM	AltX	Current	PL	1235851907
2018/02/06	2018/02/06	2018/02/06 16:18	9100	WKF	Workforce Holdings Ltd	2006/11/21	JSE	EM	AltX	Current	Ordinary	316850745.9
2018/02/06	2018/02/06	2018/02/06 16:18	9221	JBL	Jubilee Metals Group plc	2006/12/07	JSE	EM	AltX	Current	Ordinary	705525071.9
2018/02/06	2018/02/06	2018/02/06 16:18	29543	MRI	Mine Restoration Inv Ltd	2012/06/25	JSE	EM	AltX	Suspended	Ordinary	25885698
2018/02/06	2018/02/06	2018/02/06 16:18	46478	NFP	New Frontier Prop Ltd	2015/01/21	JSE	EM	AltX	Current	Ordinary	3025585652

Appendix 1: Population of companies used in the study

Source: List obtained directly from the JSE Primary and Capital Markets section

Appendix 2: Listing of non-South African companies

StatisticDate	Alpha	LongName	MarketCap	Place of Domicile
2018/02/06	4SI	4Sight Holdings Ltd	710781009.20	Mauritius
2018/02/06	ARA	Astoria Investments Ltd	1302924273	Mauritius
2018/02/06	MLD	Mainland Real Estate Ltd	1069870534	Mauritius
2018/02/06	APH	Alphamin Resources Corp	2716736095	Mauritius
2018/02/06	NFP	New Frontier Prop Ltd	3025585652	United Kingdom
2018/02/06	JBL	Jubilee Metals Group plc	3025585652	United Kingdom
2018/02/06	KBO	Kibo Mining plc	1235851907	Ireland
2018/02/06	UPL	Universal Partners Ltd	1157602096	Mauritius

Source: Extrapolated from the population data

Appendix 3: Listing of companies in the service industry

StatisticDate	Alpha	LongName	MarketCap
2018/02/06	AVR	Avior Cap Market Hldg LD	138970845
2018/02/06	GAM	Global Asset Mngment Ltd	183703115
2018/02/06	DMCCB	Soapstone Investment Ltd	88000000
2018/02/06	STA	Stratcorp Ltd	12300072.54
2018/02/06	NVE	NVest Financial Hldgs Ltd	605483444
2018/02/06	VUN	Vunani Ltd	461711437.6
2018/02/06	REN	Renergen Limited	633694661.9
2018/02/06	ACG	Anchor Group Limited	751460201.1
2018/02/06	ADW	African Dawn Capital Ltd	5919757.56
2018/02/06	WKF	Workforce Holdings Ltd	316850745.9
2018/02/06	MRI	Mine Restoration Inv Ltd	25885698

Source: Extrapolated from the data population

Appendix 4: Listing of local companies with market cap above R1 billion

StatisticDate	Alpha	Long Name	MarketCap
2018/02/06	BFS	Blue Financial Services	1069870534
2018/02/06	HET	Heriot REIT Limited	2716736095
2018/02/06	OAS	Oasis Crescent Prop Fund	1235851907

Source: Extrapolated from the population data