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Capital Structure, Corporate Citizenship, and Performance of Small and Medium Enterprises: Panel Evidence of JSE AltX Listed Companies

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, in partial fulfilment of the requirements for the degree of Masters of Management in Finance and Investments

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ABSTRACT

In recent times, there has been a shift in emphasis from evaluating firms based solely on financial performance indicators to evaluating their performance based on broader indicators, incorporating financial, societal and environmental factors. Consequently, corporate governance has evolved to incorporate these broader indicators. Of these indicators, capital structure choice and corporate citizenship have been established as two of many critical aspects of corporate governance. This study aims to establish whether capital structure and corporate citizenship impact the performance of small and medium enterprises (SMEs). The focus is on SMEs because they are not only drivers of a growing and inclusive economy, but are drivers of societal transformation as well. The focus on how the capital structure of SMEs impact their firm performance is an important one. In particular given that short- and long-term financing decisions to fund a firm's short- and long-term investments can have a significant impact on maximising shareholder wealth by maximising firm value. The King IV report explicitly states that good corporate governance (incorporating corporate citizenship) contributes to the success of an SME as it enhances how its leadership structures function and guides the board to govern in a manner that helps the SME meet its strategic objectives. This study is important because in recent times within the South African context, there have been no studies found to establish the link between the capital structure or corporate citizenship of SMEs and their performance.

The study examined all non-financial services firms that were recently or currently listed on the JSE AltX. The analysis included descriptive statistics, examination of the correlation matrix, Granger causality tests, estimation of equations using the fixed effects or random effects models; and robustness checks using the generalised method of moments approach (GMM).

The findings pertaining to the relationship between capital structure and firm performance are mixed; and between corporate citizenship and firm performance no significant relationship was found. The GMM approach shows that the chosen fixed effects or random effects models are robust in most cases. The mixed results for capital structure suggest that there is an opportunity for SMEs to use the capital structure lever of corporate governance to drive the agenda of maximising firm value and by extension, shareholder returns depending on the needs of the firm.

Keywords: capital structure, corporate governance, corporate citizenship, firm performance, small and medium enterprises

DECLARATION

I, Matlale Serobe, declare that this research report is my own work except where otherwise indicated by the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in Finance and Investments at the University of the Witwatersrand. It has not been submitted before for any degree or examination in any other University.



Matlale Serobe

DEDICATION

I dedicate this research to God Almighty, my parents, daughter, sister and cousins.

To God Almighty for giving me the strength to complete this degree.

To my parents, Simon and Hunadi Serobe for their unending support in all I do. I am where I am today because of you.

To my daughter, Reyapele, I hope my studying through the years has taught you the value of discipline, perseverance and seeing things through despite the challenges that may come your way.

To my sister, Naledi and all Ditloholo tsa Matease le Matlale, I hope this research will inspire you to reach your full potential in your chosen careers and to turn your dreams into reality. Let us build on the great foundation our parents have given us.

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1 INTRODUCTION

1.1 Introduction to the Study

Initial capital structure analysis was first performed towards the end of the 19th century by comparing loan clients based on the ratio between their own financial resources and borrowed resources (Shleifer & Vishny, 1997; Tudose, 2012). At that time, an acceptable ratio of own resources to borrowed resources was at least two (Tudose, 2012). When commercial bankers first performed this analysis, they never could have imagined that two centuries later the concept of capital structure would still be a priority for those at the helm of governments and corporations.

The notion of corporate governance dates back to when the first chartered companies (for example the East India Company) were formed in the 16th and 17th century and there was a possibility of conflict between investors and managers. It first gained popularity in the 1970s in the United States (US) and has since become the subject of debate among regulators, executives, investors and academics (Cheffins, 2013). Similarly, corporate citizenship, a subset of corporate governance, originated in the US in the 1980s and has emerged as a prominent term in academic and business literature dealing with the role of business in society (Matten & Crane, 2005).

To date, there have been numerous studies aiming to establish the link between firm performance and capital structure or corporate governance variables. The concept of performance is a controversial one in finance largely owing to its multidimensional meanings (Prahalathan & Ranjany, 2011). Performance can be viewed from the financial or organisational (non-financial) perspectives (Prahalathan & Ranjany, 2011). Financial performance is concerned largely with maximising profit, return on assets and shareholder returns (Tudose, 2012). On the other hand, non-financial performance is concerned largely with measures such as product quality, customer satisfaction, and market share (Banker, Potter, & Srinivasan, 2000).

In 2003, the Johannesburg Stock Exchange (JSE) launched the Alternative Exchange (AltX) to enable small and medium-sized high-growth companies to raise capital via the equities market by relaxing some of the requirements of the JSE mainboard (JSE, 2014). In a period of 12 years (from 2004 to 2015), the AltX grew from 10 companies listed (with a market capitalisation of R1 billion) to 63 companies listed (with a market capitalisation of R32.6 billion) (Cheyne, 2016; Van Heerden, 2015). Since inception, AltX has supported the listing of more than 120 companies, resulting in more than 29 migrations

to the JSE Main Board (Cheyne, 2016). Table 1 shows some of the differences between listing on the JSE mainboard and the JSE AltX. Besides raising capital, listing on the AltX can increase a growing company's profile, credibility and exposure to investors that it otherwise would not have been exposed to (Arbor Capital, 2015). However, within the South African context, opinion around the AltX, and by extension SMEs, within the business world is somewhat polarised. Some investors see the financial potential of small businesses, while others shrug off the AltX as the mainboard's poorer, less pretty cousin (Arbor Capital, 2015).

Table 1: Comparison between Listing on JSE Mainboard and AltX

Listing Requirement	JSE Mainboard	JSE AltX
Share Capital	R50 million	R2 million
Shares in Issue	25 million	2 million
Profit History	3 years	None
Reported Earnings Before Tax	15 million	None
Percentage of Shares Held by Public	20%	10%
Sponsor/ Designated Advisor	Sponsor	Designated Advisor
Training Requirements	None	AltX Directors' Induction Programme
Number of Shareholders	500	100

Sources: JSE (2014) and MacLeod (2008)

1.2 Background and Context

Capital structure is the mix of debt and equity used to finance a firm's operations and growth (Firer, Ross, Westerfield, & Jordan, 2012). It comprises of two main theories, namely: trade-off and pecking order theories. Other capital structure theories include the market timing, signalling and free cash flow theories (Ramjee & Gwatidzo, 2012). Table 2 (on the following page) summarises the evolution of capital structure theory.

Since the seminal work by Modigliani and Miller (1958, 1963) finance scholars are still finding it difficult to find definitive answers to the following questions (Barclay & Smith, 2005):

1. How should a company choose a capital structure that maximises firm value?
2. What are the important factors that determine this capital structure?

The reason for this is partly due to the existing theories leading to different and completely opposed decisions and outcomes. Myers (1984) refers to this conflict among different theories as the "capital structure puzzle". In his subsequent work, he postulates that capital structure theories differ in their relative emphasis on, or interpretation of, the

following factors: taxes, differences in information and agency costs. The trade-off theory stresses taxes, the pecking order theory emphasises differences in information, and the free cash flow theory gives emphasis to agency costs (Myers, 1984).

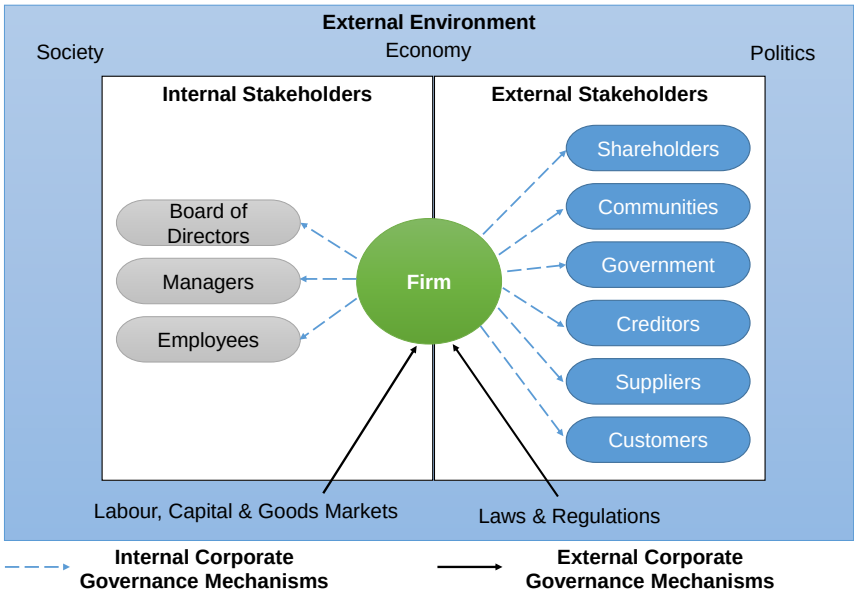
Table 2: Evolution of Capital Structure Theory

Period	Theory/Proposition/ Focus	Argument/Approach
1958 & 1963	Modigliani & Miller Propositions	• In the absence of taxes, a firm's value is independent of its capital structure (1958) • In the presence of taxes, capital structure is optimal at 100% debt financing as it minimises the weighted average cost of capital and maximises firm value (1963)
1960s – 1970s	Static Trade-off Theory	• Builds on the Modigliani & Miller propositions by incorporating financial distress and agency costs • Argues that there exists an optimal capital structure where the tax benefit from debt is exactly equal to the cost that comes from the increased probability of financial distress
mid-1970s	Agency Cost Theory	• Focused on two categories of conflicts of interest • On the one hand between managers and shareholders (referred to as the agency costs of equity) • On the other hand between creditors and shareholders (referred to as the agency costs of debt)
1977	Signalling Theory	• Emerged from a study by Ross (1977) • Argues that profitable firms are likely to increase their debt levels because extra interest payments will offset some of the pre-tax profits
Early 1980s	Pecking Order Theory	• Argues that there is a hierarchy in the firm's preference for financing its investments and compliance with the hierarchy represents an optimal financing strategy • Firms would use internal financing first, then issue debt next, then lastly issue equity
Late 1980s	Theories Explaining Capital Structure in Relation to Strategy and Corporate Organisation Factors	• The approach was premised on the influence of debt on strategic variables (for example price and quantity) and on the relationship between suppliers and consumers
1990s	Researchers Sought to Find Evidence in Favour of or Against the Trade-off Theory and the Pecking Order Theory	• The research found that "there is no universal theory of the debt-equity choice, and no reason to expect one" (Myers, 2001, p.81) • This reoriented research to the level of empirical analyses
2002	Market Timing Theory	• The market timing theory emerged from a minor argument published by Korajczyk, Lucas, and McDonald (1989) and Korajczyk, Lucas, and McDonald (1991) as a separate capital structure theory after the publication of a paper by Baker and Wurgler (2002) • States that differentials between market and book valuations drive capital structure levels in firms

Adapted from Tudose (2012)

Furthermore, most theories on capital structure are not mutually exclusive, that is, taxes, differences in information and agency costs *all* play some role in determining a firm's capital structure. This is further complicated by the fact that most variables that researchers think affect capital structure are difficult to measure, for example since it is not easy to measure when managers have proprietary information, it is not easy to test the market timing theory (Barclay & Smith, 2005).

Corporate governance "deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment" (Schleifer & Vishny, 1997, p. 737). Though agency theory dominates corporate governance research, it also borrows from legitimacy and stakeholder theories (Ntim, 2013; Scholtz, 2014). Denis and McConnell (2003) define corporate governance as a set of institutional and market-based mechanisms that encourage the self-interested controllers of a company (that is, management) to make decisions that maximise the value of the company to its owners (that is, suppliers of capital). On the other hand, Gillan and Starks (1998) define corporate governance as "the system of laws, rules, and factors that control operations at a company" (p. 4). Another broader perspective of corporate governance that is, consistent with those above, pertains to the firm as a nexus of contracts with several stakeholders (Gillan, 2006; Gillan & Starks, 1998; Jensen & Meckling, 1976). Regardless of the particular definition or viewpoint, scholars often view corporate governance mechanisms as falling into one of two groups: internal governance and external governance (Gillan, 2006; Rossouw, Van der Watt, & Malan, 2002). Internal governance (also referred to a narrow conception of corporate governance) is concerned with the governance of firms from within (Rossouw et al., 2002). On the other hand, external governance (also referred to as a broader notion of corporate governance) is concerned with control over companies from the outside (Rossouw et al., 2002). This entails how the state and judiciary exercise external control over firms in general as well as securities transactions in particular (Rossouw et al., 2002). These corporate governance mechanisms aim to balance the needs and requirements of various stakeholders operating within an ever-changing macro-environment context as depicted in Figure 1.



Adapted from Gillan (2006) and Rossouw et al. (2002)

Figure 1: Broad Corporate Governance Mechanisms

There have been numerous concerns regarding the cost of corporate governance compliance for smaller listed entities. In an attempt to accommodate these smaller companies, the US introduced a three-tier governance system for publicly traded companies split by market capitalisation. Similarly, upon recognition of the difficulty smaller companies may have in fully complying with corporate governance codes, the United Kingdom (UK) allowed smaller companies some flexibility and in cases of non-compliance, gave them the option to explain the reasons for non-compliance (Scholtz, 2014).

South Africa was isolated from the global economy between 1961 and 1994 (Vaughn & Ryan, 2006). This was due to the country's oppressive political environment (encapulated by the apartheid system) and subsequent economic and trade sanctions imposed against it by the United Nations (Vaughn & Ryan, 2006). When South Africa re-entered the global economy in 1994, corporate structures and corporate governance practices had fallen behind international norms (Vaughn & Ryan, 2006). In addition, the emerging markets financial crises of 1997 – 1998 in Asia, Russia and Brazil, placed the quality of corporate governance in emerging markets under close scrutiny (Vaughn & Ryan, 2006). This prompted South African firms to implement improved corporate governance standards (Scholtz, 2014).

Together with the South African government, corporate South Africa launched several governance reforms (Scholtz, 2014). These included:

- The First King Report on Corporate Governance (King I) introduced in 1994;
- The Insider Trading Act (1998) repealed by the Security Services Act (2004); and
- Revision of the JSE listing requirements in 1995, which made it mandatory for firms to disclose the extent to which they complied with King I.

King I emphasised the relationship between directors and shareholders. The Second King Report (King II), released in 2002, included comprehensive corporate practices and conduct and set an international benchmark by requiring non-compliant firms to justify their non-compliance. The Code of Governance: Principles for South Africa (King III) was released in 2009. It requires all entities (not just listed firms, public enterprises and government entities) to consider the corporate governance approach that best suit their size and complexity (Scholtz, 2014). King IV, similar to King I, II and III, has its foundation set in ethical and effective leadership. Whereas in prior King Reports, the link between ethical and effective leadership and good corporate governance principles was implicit; in King IV, this link is explicit for various types of organisations, including small companies (King, 2016). The JSE listing requirements have also been updated with each revision of the King Code (Vaughn & Ryan, 2006). These reforms have contributed to South Africa, unlike most African countries, possessing a relatively sound financial and regulatory structure and being the base for some of the world's largest multinational corporations (Ntim, 2013). In addition, the South African government passed a number of affirmative action and stakeholder laws (for example Broad-Based Black Economic Empowerment, Employment Equity, Environmental and Health and Safety Laws) aimed at addressing residual negative socio-economic legacies of the apartheid system (Ntim, 2013). The JSE Social Responsibility Index (SRI) was launched in May 2004 to assess how major JSE listed companies performed against a set of Environmental, Social and Governance (ESG) concerns. It was terminated in December 2015, and replaced with the FTSE/JSE Responsible Investment Index (JSE, n.d.).

King (2016) emphasises the importance for SMEs to ensure a foundation of good governance is established from the beginning so that it becomes entrenched in the firm's corporate culture. Furthermore, the King IV report highlights some of the following benefits SMEs can derive from good corporate governance:

- Enhanced credibility and reputation;
- Access to capital and loans on better terms;
- Ability to attract talent for employment;
- Improved access to markets;
- Better positioning to capture business opportunities;

- Improved controls and fraud prevention;
- Business continuity arrangements that permit the SME to operate under uncertainty and volatility;
- Leadership continuity through succession planning; and
- Better risk management.

Over and above the aforementioned benefits of good corporate governance for SMEs, the first three principles of the King VI report focus on leadership, ethics and corporate citizenship. King IV recommends that the following corporate citizenship areas should be monitored and measured.

- Workplace (including employment equity, fair remuneration, health and safety; and dignity and development of employees).
- Economy (including economic transformation, prevention, detection and response to fraud and corruption; and a transparent tax policy).
- Society (including public health and safety, consumer protection, community development and protection of human rights).
- Environment (including responsible pollution control and waste disposal and the protection of biodiversity).

1.3 Problem Statement

The bulk of studies on how capital structure and corporate citizenship impact firm performance are concentrated in developed markets (Blazovich & Murphy Smith, 2011; Servaes & Tamayo, 2013). Within these markets, the focus of studies conducted to date is biased towards large corporations. For these reasons, the problem this study aims to address is how both capital structure and corporate citizenship impact the performance of SMEs in a developing market such as South Africa. The problem was chosen because capital structure choice and corporate citizenship have been established as two (of many) critical aspects of corporate governance (Naseem, Malik, Zhang, & Ramiz Ur, 2017; Ntim & Soobaroyen, 2013). The criticality of these two constructs to corporate governance is evident in how corporate governance is defined in literature. For instance, according to Schleifer & Vishny (1997, p. 737) corporate governance “deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment”. This definition hints at the importance of reducing agency costs (of debt and equity) and at the importance of capital structure choice (that is, internal vs. external financing, debt vs. equity) to ensuring a return on capital. On the other hand, Rossouw et al. (2002) posit that internal corporate governance is concerned with how

the board of directors is held accountable for all stakeholders of the firm, that is, shareholders, employees, suppliers, customers and communities. This explanation is consistent with various aspects of corporate citizenship. This study focuses on SMEs because they "are the drivers of a growing and inclusive economy, and of societal transformation" (King, 2016, p. 103). They play a significant role in job creation, thereby enabling people to enter the formal economy and join the mainstream of society. The focus on how the capital structure of SMEs impact their firm performance is an important one. In particular given that short- and long-term financing decisions to fund a firm's short- and long-term investments can have a significant impact on maximising shareholder wealth by maximising firm value (Dayananda, 2002). King (2016) explicitly states that good corporate governance (incorporating corporate citizenship) contributes to the success of an SME as it enhances how its leadership structures function and helps the board to govern in a way that helps the SME meet its strategic objectives.

1.4 Purpose and Significance of the Study

In light of the previous discussion and gaps identified in the literature, the objectives of the study are as follows:

i. To establish the effect of capital structure on the performance of SMEs.
ii. To establish the effect of corporate citizenship on the performance of SMEs.

In recent times, there has been a shift in emphasis from evaluating firms based solely on financial performance indicators to evaluating their performance based on broader indicators, incorporating financial, societal and environmental factors (Hall, 2011). For that reason, this study is important because it examines how financial (that is, capital structure) and societal and environmental (that is, corporate citizenship) factors impact the financial performance of firms. For **academics**, given that the bulk of research is concentrated in developed markets, the study will contribute to the empirical body of knowledge that aims to establish the relationship between capital structure and firm performance as well as corporate governance and firm performance within an emerging market context. In addition, the study will contribute towards the currently limited research on the performance of SMEs in South Africa. For **SMEs**, since financial and human resource constraints have been cited as some of the major reasons SMEs do not prioritise corporate citizenship (Ceptureanu, 2016); and that for contemporary corporations, corporate social responsibility and corporate citizenship are seen a source of competitive advantage (Yahya & Ha, 2014); it is important for SMEs to understand to what extent an investment in CSR or corporate citizenship can impact their performance.

Furthermore, since short- and long-term financing decisions can impact firm value, it is important for SMEs to understand what extent capital structure can impact their firm value (Dayananda, 2002).

1.5 Research Hypotheses

Capital structure theories suggest different relationships between debt level and firm performance. For example, the M&MII, trade-off, signalling and free cash flow theories suggest a positive relationship between debt level and firm performance (Hillier, Ross, Westerfield, Jaffe, & Jordan, 2013; Jensen, 1986; Modigliani & Miller, 1963; Prahalathan & Ranjany, 2011). On the other hand the pecking order theory suggests a negative relationship between debt level and firm performance (Abor, 2007). Depending on whether agency costs are viewed from the agency cost of equity or debt perspective, both a positive and negative relationship between debt level and firm performance (Hossain & Nguyen, 2016).

The bulk of empirical studies pertaining to capital structure and firm performance are conducted outside the African continent. Furthermore, empirical studies in both developed & developing markets provide evidence in three directions pertaining to capital structure: positive, negative or none (Abor, 2005; Adewale & Ajibola, 2013; Olokoyo, 2013).

The only study found in South Africa examining the relationship between debt level and firm performance for SMEs was conducted 10 years ago and found mixed results (Abor 2007). As such, the above discussion leads to the following hypothesis:

Hypothesis 1:

H_0: There is no significant relationship between capital structure and firm performance in SMEs

H_1: There is a significant relationship between capital structure and firm performance in SMEs

Most of the theories pertaining to corporate citizenship, namely: FCF, agency, stewardship, stakeholder and legitimacy theories suggest a positive relationship between corporate citizenship and firm performance (Aßländer & Curbach, 2014; Castelo & Lima, 2006; Makni, Francoeur, & Bellavance, 2009; Nicholson & Kiel, 2007; Renders, Gaeremynck, & Sercu, 2010; Zadek, 2007). Similar to the impact of capital structure on firm performance, empirical studies examining the relationship between corporate citizenship and firm performance found mixed results (Lima Crisóstomo, de

Souza Freire, & Cortes de Vasconcellos, 2011; Mulyadi & Anwar, 2012; Uadiale & Fagbemi, 2012). Corporate citizenship as an academic field of research in South Africa is a relatively new phenomenon (Visser, 2005). Few studies (Alessandri, Black, & Jackson, 2009; Chetty, Naidoo, & Seetharam, 2015; Margaritis & Psillaki, 2007) examining the relationship between corporate citizenship (or CSR) and firm performance in South Africa found mixed results. The above discussion leads to the following hypothesis.

Hypothesis 2:

H_0: There is no significant relationship between corporate citizenship and firm performance in SMEs

H_1: There is a significant relationship between corporate citizenship and firm performance in SMEs

2 LITERATURE REVIEW

2.1 Introduction

The literature review documents the theoretical and empirical base for understanding how capital structure and corporate citizenship, a constituent of corporate governance, impact firm performance. The literature review begins with an overview of capital structure and corporate governance theories. Though agency theory dominates corporate governance research, parts of the corporate governance literature stem from other theoretical perspectives such as the stakeholder and legitimacy theories (Ntim, 2013; Scholtz, 2014). Corporate citizenship theory in particular, evolved from management literature that focuses on the role of business in society (Matten & Crane, 2005). Thereafter follows a review of how capital structure, corporate citizenship and firm performance variables are defined in previous studies. Next, the relationship between capital structure and corporate citizenship and firm performance is explored.

2.2 Capital Structure and Corporate Citizenship Theories

This section describes the main capital structure, corporate governance and corporate citizenship theories and their implications pertaining to firm performance. This is followed by, a discussion of how these variables are operationalized in literature. A detailed discussion on empirical studies is postponed to sections 2.4 to 2.6.

2.2.1 Modigliani and Miller Proposition

The Modigliani and Miller (hereinafter referred to as M&M) propositions, prompted the debate on capital structure and led to the exponential growth of literature on capital structure (Ramjee & Gwatidzo, 2012). These propositions assume that capital markets are efficient (that is, there are no arbitrage opportunities). The first proposition (M&MI) states that the value of the firm is independent of the firm's capital structure, that is, the value of the levered firm is equal to the value of the unlevered firm (Modigliani & Miller, 1958). The implication of M&MI is that a firm's capital structure is irrelevant (Firer et al., 2012). Empirical studies that find no relationship between firm performance and capital structure provide evidence in support of M&MI (Cole, Yan, & Hemley, 2015; Salameh, Al-Zubi, & Al-Zu'Bi, 2012). The second proposition (M&MII) states that the value of the firm levered (with perpetual debt), is equal to the value of the firm unlevered plus the present value of the interest tax shield, that is, $V_L = V_U + PV_{Interest\ Tax\ Shield}$ (Modigliani & Miller, 1963). The implication of M&MII is that debt financing is highly advantageous

and a firm's optimal capital structure is 100% debt (Firer et al., 2012). Empirical studies in that find a positive relationship between firm performance and debt level provide evidence in support of M&MII (Adewale & Ajibola, 2013; Kazempour & Aghaei, 2015).

2.2.2 Trade-off Theory

The trade-off theory builds on the M&M propositions and states that a firm borrows up to the point where the tax benefit from debt is exactly equal to the cost that comes from the increased probability of financial distress. That is, a firms borrows until it reaches the optimal capital structure, where WACC is minimised and firm value is maximised (Firer et al., 2012). In other words, the firm's capital structure decision involves a trade-off between the tax benefits of debt and the costs of financial distress (Hillier et al., 2013). So although increasing debt might lead to higher firm value due to the interest tax shield, higher debt levels might lead to higher direct and indirect financial distress costs, which decrease firm value. Therefore, according to the trade-off theory a negative relationship could be expected between debt level and capital structure (Prahalathan & Ranjany, 2011). According to Makni et al. (2009), from a corporate social performance perspective, this theory deals with the neoclassical economists' position which holds that socially responsible behaviour will result in few economic benefits, while its numerous costs will reduce profits and shareholder wealth. As such, a negative relationship can be expected between firm performance and corporate citizenship (Makni et al., 2009).

2.2.3 Pecking Order Theory

The pecking order theory states that firms prefer to use internal sources of financing wherever possible. The reason being that issuing securities to raise cash is costly, so it makes sense to avoid it as far as possible. According to the pecking order theory, companies would use internal financing first (that is, retained earnings), then issue the safest securities (debt) next, then lastly issue equity (Firer et al., 2012). The implications of the pecking order theory, which are in stark contrast to the static trade-off theory, are as follows. Firstly, there is no target/optimal capital structure. Instead a firm's capital structure is determined by its need for external financing, which dictates the amount of debt a firm will have. Secondly, profitable firms use less debt. Since profitable firms have greater internal cash flow, they will need less external financing and will therefore have less debt. Lastly, companies like financial slack. To avoid issuing new equity, companies will stockpile internally generated cash reserves (referred to as financial slack). This allows management to finance projects as opportunities arise and enable them to move

quickly if necessary. Therefore, according to the pecking order theory, firms that are profitable are expected to use less debt in their financing structure, therefore a negative relationship could be expected between firm performance and debt level (Abor, 2005).

2.2.4 Signalling Theory

Signalling theory argues that profitable firms are likely to increase their debt levels because extra interest payments will offset some of the pre-tax profits. Since managers (insiders) may be privy to information about the future prospects of a firm that investors (outsiders) may not be privy to (that is, information asymmetry) investors will make inferences based on managers' actions. Rational investors will infer a higher firm value when firms issue debt. Therefore, an increase in debt levels will lead to an increase in the share price. Conversely, rational investors will infer a lower firm value when firms issue equity, leading to a decrease in the share price. Investors thus view debt as a signal of firm value – and managers signal information when they change leverage (Hillier et al., 2013). Thus, signalling theory suggests a positive relationship between firm performance and debt level.

2.2.5 Free Cash Flow Hypothesis

The free cash flow (FCF) hypothesis states that wasteful activity can be expected in a firm (where managers hold a small ownership stake) with the capacity to generate large cash flows, than in a firm with the capacity to generate only small free cash flows (Hillier et al., 2013; Jensen, 1986). The implications of the free cash flow hypothesis for capital structure are as follows. Firstly, an increase in debt benefits shareholders since (mandatory) principal & interest payments reduce the free cash flow of firms. Secondly, an increase in (discretionary) dividends should benefit shareholders as it reduces managers' ability to pursue wasteful expenditure due to reduced available free cash flow.

Therefore the FCF Hypothesis provides another reason to issue debt. New equity dilutes the shareholding of managers with equity stakes, increasing their motive to waste corporate resources. The FCF Hypothesis implies that debt reduces the opportunity for managers to waste company resources (that is, shirk, consume perquisites & take on negative NPV projects). Thus, according to the FCF theory, a positive relationship could be expected between firm performance and debt level.

The availability of FCF enhances the firm's ability to invest in employees, communities and the environment (Makni et al., 2009). Therefore, a positive relationship could be expected between firm performance and corporate citizenship.

2.2.6 Agency Cost Theory

Agency cost theory is concerned with conflicts of interest between groups with different interests in the same assets. Agency costs can be classified as agency costs of debt and agency costs of equity. The agency costs of debt arise because of different interests of shareholders and debt holders. Assuming that management is in favour of shareholders, there are three kinds of selfish strategies that management can use to the advantage of shareholders and the disadvantage of bondholders. Management can either take on large risks, underinvest or milk the property as shown in Table 3. Agency costs of debt can be reduced by incorporating protective covenants in debt agreements or issuing convertible debt (Hillier et al., 2013).

Table 3: Agency Costs of Debt

Agency Costs	Illustration
Incentive to take large risks	• Relative to low-risk projects, high-risk projects increase firm value in a boom & decrease firm value in a recession • In a boom, bondholders will get paid in full regardless of whether a low-risk or high-risk project is chosen; and the increase in value will be captured by the shareholders • However, in a recession, bondholders will typically get paid in full if a low-risk project is chosen, and get paid less if a high-risk project is chosen; the shareholders are likely to receive nothing whether a low-risk or high-risk project is chosen
Incentive towards underinvestment	• Shareholders contribute the full investment of positive NPV projects (for example through retained earnings), but the benefits of increased firm value from the investment are shared by both shareholders and bondholders
Milking the property	• Paying out extra dividends in times of financial distress, leaving less in the firm for bondholders

Adapted from Hillier et al. (2013)

Agency costs of equity arise because of the difference in interests between a firm's shareholders and its management. According to Smith (2005), restated in Hillier et al. (2013), "an individual will work harder for the firm if she is one of the owners than if she is just an employee. In addition, the individual will work even harder if she owns a large percentage of the firm, than if she owns a small percentage" (p. 450). This quote captures the essence of the agency costs of equity described in Table 4. The agency costs of equity can be significantly reduced by leveraged buyouts, where the team of existing management buys out the existing shareholders at a share price above the current market price. Since management owns a substantial portion of the business after an LBO, they are likely to work harder (Hillier et al., 2013).

Table 4: Agency Costs of Equity

Agency Cost of Debt	Illustration
Shirking	• Shirking refers to a significant drop in work intensity • An equity issue (in a small firm) increases an owner-manager's incentive to shirk, because it reduces the manager's shareholding in the firm and ultimately the cash flow due to him/her than if debt was issued and he/she would retain a larger percentage of the firm
Perquisites	• Refers to excessive managerial expenses for example company car/jet, big office, among others. • If an owner-manager for example owns only a third of the firm, two thirds of these expenses are paid for by other shareholders • If he/she is the sole owner, any additional perquisites reduce his/her equity stake alone
Increased probability of taking on negative NPV projects	• The loss in share value due to taking on negative NPV projects to an owner-manager with a small equity stake may be less than the increase in salary and other benefits

Adapted from Hillier et al. (2013)

Agency cost theory proposes two alternative outcomes for the impact of a firm's capital structure on firm performance (Hossain & Nguyen, 2016). Firstly, as debt level increases, so too does the agency cost of debt since shareholders are likely to adopt riskier projects at the expense of debt holders. Therefore a negative relationship can be expected between firm performance and higher leverage. An alternative perspective, closely linked to the free cash flow hypothesis, is that higher debt levels lead to more interest expense creating higher bankruptcy risk. As a result, managers have to perform better to avoid bankruptcy, which improves firm performance and reduces the agency costs of equity. Therefore a positive relationship can be expected between firm performance and higher leverage.

Agency theory suggests a positive relationship between corporate governance and firm performance as good governance improves managerial monitoring and decision-making, as well as reduce expropriation and wastage by management; thereby enhancing operational performance and firm valuation (Jensen & Meckling, 1976; Renders et al., 2010). Therefore, given that corporate citizenship is a constituent of corporate governance, a positive relationship can be inferred between corporate citizenship and firm performance.

2.2.7 Stewardship Theory

In contrast to agency theory, stewardship theory posits that managers are trustworthy individuals and therefore are good stewards of the resources entrusted to them. The theory further states that since executive directors spend their working lives in the company they manage, they understand the business better than non-executive/external

directors and can therefore make superior decisions. Proponents of stewardship theory argue that superior corporate performance will be linked to majority executive directors on the board of directors, as they naturally work to maximise profit for shareholders (Nicholson & Kiel, 2007). Therefore, according to stewardship theory, a positive relationship could be expected between firm performance and corporate citizenship.

2.2.8 Stakeholder Theory

The idea that organisations have stakeholders, not just shareholders, has become commonplace in professional and academic literature (Donaldson & Preston, 1995). Stakeholder theory begins with the assumption that values are a critical part of doing business; and rejects the separation thesis, which begins by assuming that ethics and economics can be precisely separated. Stakeholder theory is encapsulated in two core ideas. Firstly, it encourages managers to articulate a shared sense of purpose for the firm and its stakeholders. Secondly, it encourages managers to articulate the types of relationships they want to forge with their stakeholders in order to deliver on their purpose (Freeman, Wicks, & Parmar, 2004). Therefore, stakeholder theory infers a positive relationship between firm performance and corporate citizenship since meeting the needs of various stakeholders enhances a firm's reputation contributing to improved firm performance (Makni et al., 2009).

2.2.9 Legitimacy Theory

Legitimacy theory is based on the premise that there exists a social contract between business and society. Society allows companies to exist and have rights. In return society expects business to fulfil its expectations about how their operations should be conducted. Therefore, in order to survive, a company needs to ensure that the activities it undertakes are perceived as being in accordance with the norms and values of society. If the social contract is breached, a legitimacy gap may develop (Castelo & Lima, 2006). Suchman (1995) captures the aforementioned by defining legitimacy as "a generalised perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (p. 574). Therefore, based on legitimacy theory, a positive relationship could be expected between firm performance and corporate citizenship.

2.2.10 Corporate Citizenship Theory

Ntim and Soobaroyen (2013) found that better governed firms tend to pursue a more socially responsible agenda through increased CSR practices. Fifka (2013) in his qualitative study highlights the importance of socio-economic context for corporate citizenship and found that more US than German (whom would typically be grouped under the umbrella of developed countries) firms undertake corporate citizenship activities. Hamann (2006) highlights three drivers and enabling conditions for corporate citizenship. The first focuses on economic incentives, where the business case for corporate citizenship maintains that it has positive impacts on profitability or competitiveness, at least in the medium and long term. The second approach focuses on ethical motives, often with an emphasis on why economic incentives on their own are insufficient for characterising the role for business in society. The third approach emphasises the institutional dimension and incorporates forces that lie beyond the organisational boundary. These include government, business associations, non-governmental organisations, other stakeholders as well as the cultural context influencing the companies' behaviour.

Recent studies on corporate citizenship highlight the new political role of firms in society by arguing that firms are increasingly acting as quasi-governmental actors and taking on duties that were traditionally viewed as governmental tasks (Aßländer & Curbach, 2015). Corporate citizenship is an extension of studies that conceptualise the role of business in society largely dominated by corporate social responsibility (CSR). CSR encompasses four responsibilities of the corporation. Firstly, the economic responsibility to be profitable. Secondly, the legal responsibility to abide by the laws of the country within which the corporation operates. Thirdly, the ethical responsibility to do what is right and just. Lastly, the philanthropic responsibility to contribute to various community upliftment initiatives (Matten & Crane, 2005).

Matten and Crane (2005) in their widely cited paper presented an extended conceptualisation of corporate citizenship in which the corporation administers citizenship rights for individuals. This it achieves by taking on a providing role (in which it provides some form of social service), an enabling role (in which it capacitates citizens' civil rights), and a channelling role (in which it acts as an additional conduit for individuals to exercise their political rights). Baumann-Pauly and Scherer (2013) built on this conceptualisation by designing a tool that operationalises this extended view of corporate citizenship. Prior to presenting this extended view, Matten and Crane (2005) presented what they termed the limited view and equivalent view of corporate citizenship.

The limited view associates corporate citizenship with philanthropy whereby the corporation contributes to society by giving donations or supporting community initiatives. The equivalent view equates corporate citizenship to corporate social responsibility. Fifka (2013), using CSR as a departure point, defines various forms of corporate citizenship, namely: donations, cause-related marketing, corporate social marketing, social procurement, venture philanthropy, social lobbying, corporate volunteering, public-private partnerships and foundations.

Aßländer and Curbach (2014) take the above ides further by postulating that the manner in which businesses participate in society can either be as corporate *bourgeois* or corporate *citoyens*. From a corporate bourgeois perspective, corporate citizens operate under a national government that defines the rules and standards of society – corporate citizenship is viewed as a strategic management tool used to stabilise the social environment for business purposes. As corporate *citoyen*, the firm is part of society and plays an active role in shaping the political and social order in society.

Zadek (2007) devised what he referred to as a civic-learning tool to help organisations navigate the corporate responsibility (or corporate citizenship) landscape by factoring in different stages of organisational learning (that is, defensive, compliance, managerial, strategic and civil) and issue maturity (latent, emerging, consolidating and institutionalised). The tool can be used by firms to figure out how to develop and position their future business strategies in ways that society will embrace. The triple bottom line (TBL) framework is another framework that firms can use to execute their CSR or corporate citizenship programmes (Hidayati, 2011). The TBL framework measures the performance of a corporation along three lines: economic, social and environmental (Alhaddi, 2015). The economic line focuses on the economic value provided by the organisation in a way that makes it prosper. The social line is concerned with conducting business in a manner that is beneficial and fair to employees and the community. The environmental line refers to engaging in business practices that do not comprise the environment for future generations.

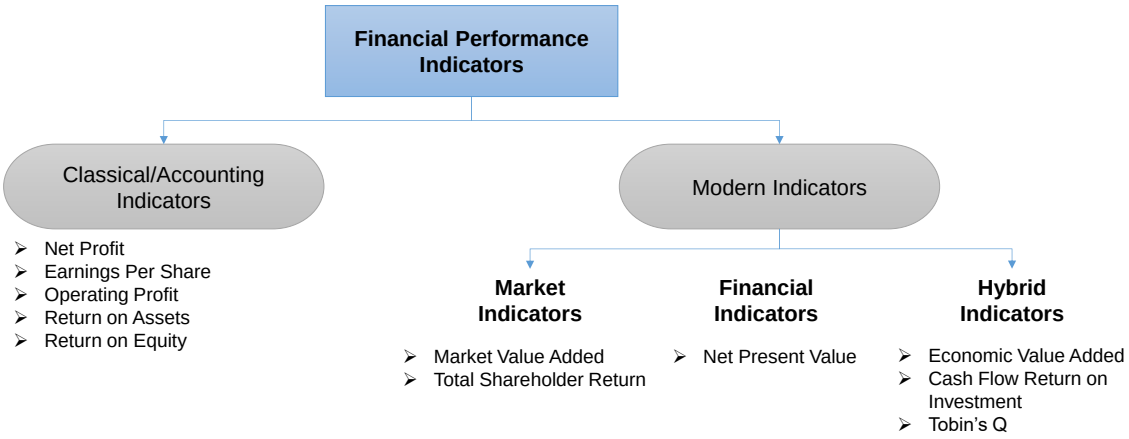
The main catalysts for the development of corporate citizenship in South Africa are legislation (for example the Broad-based Black Economic Empowerment), globalisation, stakeholder pressure and codification (Visser, 2005). In particular, the key codes that have been the most influential on corporate citizenship practices in South Africa are ISO 14001 (guidelines and standards for environmental management systems), the King Code (corporate governance) and the Global Reporting Initiative (sustainability

reporting). Based on the above discussion, a positive relationship can be expected between firm performance and corporate citizenship.

2.3 Definition of Variables as Found in Literature

2.3.1 Firm Performance

As stated previously, the concept of firm performance is a controversial topic in finance due to its multidimensional meanings (Tudose, 2012; Uadiale & Fagbemi, 2012). It can be explored from two viewpoints, namely: financial and non-financial/organisational (Tudose, 2012). Figure 2 summarises the various indicators that have been used in finance literature to measure firm performance.



Adapted from Tudose (2012)

Figure 2: Financial Performance Measures

Most empirical studies seeking to establish how financial leverage impacts firm performance use Return on Assets (ROA), Return on Equity (ROE) and/or Tobin's Q as proxies for firm performance (Abor, 2005; Adewale & Ajibola, 2013; Chadha & Sharma, 2015; Kazempour & Aghaei, 2015; Kodongo, Mokoaleli-Mokoteli, & Maina, 2014; Olokoyo, 2013; Salameh et al., 2012). However, there are some studies that opt for net profit margin, gross profit margin, market-adjusted share return and share price (Blazovich & Murphy Smith, 2011; Chowdhury & Chowdhury, 2010; Cole et al., 2015; Foo, Jamal, Karim, & Ulum, 2015; Hossain & Nguyen, 2016; Makni et al., 2009; Prahalathan & Ranjany, 2011).

In addition, empirical studies often include control variables, believed to affect firm performance, in their models (Abor, 2007; Kodongo et al., 2014). These include, among others, the following:

- *Size* and *age* – Larger and older firms enjoy greater capabilities, diversification benefits, better credibility and economies of scale which impact financial results;
- *Asset tangibility* – Firms with more tangible assets can access more debt because they have higher collateral, impacting the firm's financial return;
- *Sales growth* and *asset turnover* – Higher sales growth and asset turnover will have a direct impact on the profitability of the firm;
- *Gross Domestic Product (GDP) annual growth rate* – the higher the growth rate, the greater the opportunities for firm expansion in the economy.

2.3.2 Capital Structure

The performance and survival of a firm, depends to some extent, on the choice of the source of funds and their effective utilisation. The capital structure decision also influences the risk and return to investors (Vijayalakshmi, 2016). Recently, finance scholars have shifted their attention towards the determinants of capital structure (Dima, Ionescu, & Tudoreanu, 2013). Studies have found that capital structure decisions in developing countries are influenced by firm size, asset tangibility, capital expenditure ratio, profitability, liquidity, non-debt tax shield and corporate governance quality (Booth, Aivazian, Demirguc-Kunt, & Maksimovic, 2001; Dima et al., 2013; Gurunlu & Gursoy, 2010; Vijayalakshmi, 2016). Research conducted in South Africa by Ramjee and Gwatidzo (2012) found similar results. They found that factors affecting capital structure decisions include the following: asset tangibility, firm growth, size, risk of financial distress, profitability, and tax (Ramjee & Gwatidzo, 2012). Interestingly, the determinants of capital structure are similar to those of firm performance.

De Wet and Gossel (2016) took it a step further by establishing factors that influence debt and equity decisions separately in companies listed on the JSE main board. Their findings are summarised in Table 5. In addition, they found that small firms are more likely to limit their debt, possibly so that profits can be captured by shareholders rather than debt holders. This, they posit, could be because the major shareholders are often the founding members and/or are part of management and would therefore benefit financially if profits are paid to shareholders. They also found South African firms do not use debt issues to reduce shirking. Furthermore they found that small firms are more likely to use equity as a source of convenient finance; while large firms are more likely to use equity as a means to adjust their debt to equity ratio. Their findings provide evidence that in South Africa, small firms follow the static trade-off theory, while large firms follow the pecking order theory.

Table 5: Factors Influencing Debt and Equity Decisions in South Africa

Factors Influencing Debt Decisions	Factors Influencing Equity Decisions
• The level of forecasted cash flows from investment projects the debt will be used to fund • The volatility of earnings and cash flows • Financial flexibility/slack • Tax savings • Bankruptcy costs • The firm's credit rating	• Earnings per share dilution • Availability of internal funds (which are preferred) • Maintaining a target debt ratio • The amount by which the share is under or overvalued • Provision of shares to employee bonus schemes

Adapted from De Wet and Gossel (2016)

Scholars seeking to determine the link between financial leverage and firm performance typically use one or more of the following to operationalise financial leverage: total debt to total assets (Chadha & Sharma, 2015; Hossain & Nguyen, 2016; Kazempour & Aghaei, 2015; Salameh et al., 2012), long-term debt to total assets (Cole et al., 2015; Olokoyo, 2013), short-term debt to total assets (Abor, 2005; Foo et al., 2015; Prahalathan & Ranjany, 2011) and total debt to total equity (Kodongo et al., 2014).

2.3.3 Corporate Governance

The majority of studies operationalise corporate governance using specific aspects of corporate governance in isolation (Ntim, 2013). These include board composition and diversity, shareholder composition, board size, CEO duality, shareholder composition/ownership structure, board size, executive compensation and analysts' ratings among others (Black, Jang, & Kim, 2006; Carter, D'Souza, Simkins, & Simpson, 2010; Chaghadari & Chaleshtori, 2011; Durnev & Kim, 2005; Henry, 2008; Jackling & Johl, 2009; Klapper & Love, 2004; Manafi, Mahmoudian, & Zabihi, 2015; Morey, Gottesman, Baker, & Godridge, 2009; Ntim, Lindop, Osei, & Thomas, 2015; Renders et al., 2010; Rose, Munch-Madsen, & Funch, 2013). The use of analysts' ratings is somewhat flawed since standardised methods are used to rate corporate governance compliance across countries with varying corporate governance structures (Ntim, 2013). Ntim (2013) further goes on to argue that the highly labour-intensive nature of collecting firm-level corporate governance data directly from firms' annual reports is likely the main reason most scholars opt for these ratings. However, recent studies have focused on the composition of a corporate governance index (CGI) which covers broader corporate governance aspects (Azeem, Kouser, Hassan, & Saba, 2015; Garay & González, 2008; Ntim, 2013; Scholtz, 2014).

From the above discussion, it can be deduced that analyst ratings, a specific aspect of corporate governance, or a composite corporate governance index may be used to define the corporate governance variable.

2.3.4 Corporate Citizenship

Measuring corporate citizenship has always been a difficult task as there is little consensus as to which measurement instrument to apply (Uadiale & Fagbemi, 2012). Baumann-Pauly and Scherer (2013) operationalised corporate citizenship by developing an assessment tool based on Zadek's (2007) civic-learning tool that aimed to measure corporate citizenship embeddedness within organisations. The tool assesses the current stage of developmental learning across three aspects of corporate citizenship, namely: commitment level of corporate citizenship, structural and procedural implementation of corporate citizenship, and the interactive level of corporate citizenship. The commitment level assesses the strategic orientation, and the code of conduct among others. The structural and procedural implementation assesses whether training is offered on and whether incentive structures are aligned with corporate citizenship premises. The interactive level covers the level of participation in collaborative corporate citizenship activities and quality of stakeholders.

Yahya and Ha (2014) defined corporate citizenship culture comprising the following constructs: economic citizenship, legal citizenship, ethical citizenship and discretionary citizenship. Tsai, Joe, Lin, Chiu, and Shen (2015) on the other hand defined corporate citizenship across five dimensions. Namely, economic, legal, ethical, general philanthropic and strategic philanthropic citizenship. Gibbs (2012) used two social responsibility ratings based on seven dimensions (community, employee, environment, product, treatment of women and minorities, human rights and corporate governance). Examination of the literature indicates that most studies operationalize corporate citizenship (or CSR) based on some established index covering some or all of these dimensions. Examples include the Composite Corporate Social Performance score developed by Michael Jantzi Research Associates (Makni et al., 2009) and the Global Reporting Initiative Guidelines (Oeyono, Samy, & Bampton, 2011)

Other scholars define their own corporate citizenship indices based on the corporate citizenship landscape in a particular context (Babalola, 2012; Lima Crisóstomo et al., 2011; Ntim, 2013; Uadiale & Fagbemi, 2012).

Ntim (2013) defined a social corporate governance index reflecting South Africa's unique, institutional, cultural and contextual differences that contained nine corporate citizenship provisions shown below (p.172):

1. Whether a narrative on how a firm is actually complying with and implementing the broad-based black economic empowerment (B-BBEE) and empowerment of women laws, including black equity ownership, preferential procurement, enterprise development, and executive management control is disclosed.
2. Whether a narrative on how a firm is actually complying with and implementing employment equity laws in terms of gender, age, ethnicity and disabilities is disclosed.
3. Whether a narrative on how a firm is addressing the threat posed by HIV/Aids pandemic in South Africa is disclosed.
4. Whether a narrative on the actual measures taken by a firm to address occupational health and safety of its employees is disclosed.
5. Whether a narrative on how a firm is actually complying with and implementing rules and regulations on the environment is disclosed.
6. Whether a narrative on the existence of a code of ethics is disclosed.
7. Whether a firm's board is formed by at least 1 white and 1 non-white (board diversity on the basis of ethnicity) person.
8. Whether a firm's board is formed by at least 1 male and 1 female (board diversity on the basis of gender) person.
9. Whether a narrative on the actual community support and other corporate social investments or responsibilities is disclosed.

The preceding discussion indicates that different authors operationalise corporate citizenship in different ways. However, there are major themes that can be identified pertaining to corporate citizenship; namely: business ethics, employees, society, legal and regulatory and environment.

2.4 Capital Structure and Firm Performance

Most studies conducted to examine the relationship between capital structure and firm performance have been carried out in developed countries; however, some studies have been conducted in developing countries (Kodongo et al., 2014). Some studies report a positive relationship (Kazempour & Aghaei, 2015; Margaritis & Psillaki, 2007), others report a negative relationship (Cole et al., 2015; Hossain & Nguyen, 2016; Kodongo et

al., 2014), whilst other report a weak or insignificant relationship (Foo et al., 2015; Salameh et al., 2012).

In studies where different measures of leverage and/or firm performance are used, the results are often mixed. For example, Cole et al. (2015) examined whether there is a relationship between capital structure and firm performance of US firms in the industrial, healthcare, and energy sectors. Using the long-term liabilities to total assets ratio as a leverage measure, the study found leverage to have a negative relationship with return on assets and operating return in all three sectors. The relationship between profit margin and financial leverage differs from sector to sector. Capital structure positively affects profit margin in the industrial sector, negatively affects profit margin in the energy sector, and has no relationship with firm performance in the healthcare sector, suggesting that firms should use debt financing in the industrial and healthcare sectors, but should seek alternative financing in the energy sector. Additionally, Cole et al. (2015) found that capital structure had no relationship with stock price in all three sectors; suggesting that firms seeking to finance their activities with debt can do so without sacrificing future stock market performance.

In developing markets outside Africa, the results show similar mixed results. Prahalathan and Ranjany (2011) studied the impact of capital structure choice on firm performance in Sri Lanka. They found that short-term debt to total assets, long-term debt to total assets and total debt to total assets have a significant negative impact on gross profit margin. However, they found that neither of the three financial leverage measures had a significant impact on the firm's performance when measured by ROE and ROA respectively. On the other hand, Salameh et al. (2012) conducted a similar study in Saudi Arabia and found that there is no relationship between leverage (as measured by total debt to total assets) and ROE; but found a negative relationship between leverage and ROA.

In African markets outside of South Africa, a trend similar to that of developed and other developing markets is also observed. Olokoyo (2013) sought to determine the impact of leverage on firm performance for 101 firms listed on the Nigerian Stock Exchange from 2003 – 2007. She found that a firm's leverage was found to have a significant negative relationship with ROA, a positive significant relationship with Tobin's Q and no significant relationship with ROE. On the other hand, Adewale and Ajibola (2013) examined the impact of capital structure on the performance of selected manufacturing companies in Nigeria. They found that leverage has a positive significant relationship with both ROE and ROA, contradicting the findings of Olokoyo (2013) in the same market. In Kenya,

Kodongo et al. (2014) found strong evidence that leverage significantly and negatively affects firm profitability, but does not affect firm value. They also found that for small firms in particular, sales growth and firm size are important determinants of firm value. In Ghana, Abor (2005) found a significant positive relationship between short-term debt to total assets and ROE; a significant negative relationship between long-term debt to total assets and ROE; and a significant positive between total debt to total assets and ROE.

In South Africa, there have been few studies to establish the relationship between capital structure and firm performance. Fosu (2013) investigated the relationship between capital structure and firm performance, taking into consideration the degree of industry competition. He found that capital structure (as measured by total debt to total assets) has a positive and significant effect on ROA using 257 firms listed on the JSE. Abor (2007) examined the effect of leverage on the financial performance of 200 small and medium-sized enterprises in South Africa using data from the Small Business Advisory Bureau database and found mixed results. For example, he found that total debt had a significant negative relationship with ROA, gross profit margin and Tobin's Q, whereas short-term debt had a significant positive relationship with all three firm performance measures. Long-term debt on the other hand had a significant positive relationship with gross profit margin and a significant negative relationship with both ROA and Tobin's Q.

2.5 Corporate Governance and Firm Performance

In general, institutional investors are willing to pay a premium for good governance (Nicholson & Kiel, 2007). Similar to studies focusing on the impact of capital structure on firm performance, the majority of empirical studies examining the relationship between corporate governance and firm performance are concentrated in developed markets (Brown & Caylor, 2006; Daines, Gow, & Larcker, 2010; Durnev & Kim, 2005; Gompers, Ishii, & Metrick, 2001). Those conducted in emerging markets are focused on markets outside Africa (Brendea, 2014; Garay & González, 2008; Jackling & Johl, 2009; Morey et al., 2009).

In developed markets, the findings of the impact of corporate governance on firm performance are mixed. For example some studies found a positive relationship between corporate governance and firm performance (Beiner, Drobetz, Schmid, & Zimmermann, 2006; Bhagat & Bolton, 2008; Drobetz, Schillhofer, & Zimmermann, 2004; Durnev & Kim, 2005; Gompers et al., 2001; Renders et al., 2010). Other studies found a negative relationship (Bauer, Guenster, & Otten, 2004; Di Berardino, 2016); whilst some found limited evidence of a relationship between corporate governance and firm performance

(Brown & Caylor, 2006; Daines et al., 2010; Henry, 2008; Larcker, Richardson, & Tuna, 2007).

Though results from emerging markets are skewed towards corporate governance compliance impacting firm performance positively, they are still mixed. Garay and González (2008), Morey et al. (2009), Klapper and Love (2004), Black et al. (2006) and Khanchel El Mehdi (2007) all found a positive relationship between corporate governance and firm performance. On the other hand other scholars found mixed results (Azeem et al., 2015; Chaghadari & Chaleshtori, 2011; Jackling & Johl, 2009; Manafi et al., 2015; Ntim et al., 2015). Corporate governance is particularly important for firms in emerging markets as compliance can lead to the following benefits (Claessens & Yurtoglu, 2013):

- Increased access to external financing;
- Lower cost of capital;
- Improved operational performance through improved allocation of resources and better management; and
- Generally better relationships with all stakeholders.

In South Africa, Ntim in his numerous studies on corporate governance in South Africa found a positive association between corporate governance and firm value (Ntim, 2013, 2015; Ntim et al., 2015; Ntim & Osei, 2011; Ntim & Soobaroyen, 2013).

2.6 Corporate Citizenship and Firm Performance

Aßländer and Curbach (2014) define corporate citizenship as good management practices and governance structures and policies that guarantee that legal and ethical requirements are observed in a company's day-to-day business, as well as the voluntary occasional philanthropic engagements that a company might engage in to assist governmental efforts towards social development or environmental protection. This definition explicitly links corporate citizenship to corporate governance. Ntim and Soobaroyen (2013) in their empirical study found that a combination CSR and corporate governance practices has a stronger positive effect on firm performance than CSR alone; implying that corporate governance has a positive influence on the firm performance-corporate citizenship relationship.

Compared to empirical research on capital structure, significantly fewer studies have been conducted on the impact of corporate citizenship (or CSR) on firm performance. Currently, the main focus is on developing assessment tools to measure the extent of

corporate governance *embeddedness* within organisations (Baumann-Pauly & Scherer, 2013). However, few studies linking corporate citizenship to firm performance were found and are discussed below.

Pertaining to corporate citizenship or CSR and firm financial performance (and similar to capital structure and firm performance), the literature consists of three principal strands: (i) the existence of a positive correlation between corporate citizenship and firm performance; (ii) the lack of correlation between corporate citizenship and firm performance; and (iii) the existence of a negative correlation between corporate citizenship and firm performance.

In developed markets, some studies found a positive correlation between corporate citizenship and firm performance (Blazovich & Murphy Smith, 2011; El Ghoul, Guedhami, Kwok, & Mishra, 2011; Gardberg & Fombrun, 2006; Gregory, Tharyan, & Whittaker, 2014; Servaes & Tamayo, 2013). Other studies found a negative correlation between corporate citizenship and firm performance (Makni et al., 2009; Servaes & Tamayo, 2013). Whilst other studies found a lack of correlation between corporate citizenship and firm performance (Fiori, Di Donato, & Izzo, 2007; Gibbs, 2012; Makni et al., 2009; Servaes & Tamayo, 2013). Interestingly, the inconsistent results in the US market within similar time periods highlight the importance choice of variables for both firm performance and corporate citizenship (Blazovich & Murphy Smith, 2011; Gibbs, 2012). Blazovich and Murphy Smith (2011) used whether a firm was published in Business Ethics Magazine's 100 Best Corporate Citizens or not as a proxy for good citizenship; and used profitability, growth, operational efficiency and cost of capital as proxies for firm performance. They found a positive relationship between corporate citizenship and firm performance. Gibbs (2012) used agency ratings based on seven dimensions (community, employee, environment, product, treatment of women and minorities, human rights and corporate governance) as a proxy for corporate citizenship and an environmental measures as a proxy for firm performance and found little support for the relationship between corporate citizenship and environmental performance. This conflicting result is further pronounced in Servaes and Tamayo's (2013) study whereby the results were contingent upon some other factors. Firstly, they found that CSR activities can enhance firm performance for firms with high public awareness; however, firms with high public awareness are also penalised more when there are CSR concerns. Secondly, for firms with low public awareness, the impact of CSR activities on firm performance is either insignificant or negative. Lastly, they found that advertising has a negative impact on the CSR–performance relation if there is an inconsistency between the firm's CSR efforts and the company's overall reputation.

The results are similar in developing markets. Some scholars found a positive correlation between corporate citizenship and firm performance (Hamid, Akash, Asghar, & Ahmad, 2011; Oeyono et al., 2011; Shaker Al Ani & Jamil, 2015; Tsai et al., 2015; Yahya & Ha, 2014). Others found a negative correlation between corporate citizenship and firm performance (Lima Crisóstomo et al., 2011). Whilst some found a lack of correlation between corporate citizenship and firm performance (Mulyadi & Anwar, 2012). Two studies conducted in Nigeria in 2012 found conflicting results. Babalola (2012) using amount invested in CSR as a proxy for CSR, and profit after tax as a proxy for firm performance, found a negative relationship between corporate citizenship and firm performance. On the other hand, Uadiale and Fagbemi (2012) using community performance, environment management system and employee relations as proxies for CSR and ROE and ROA as proxies for firm performance, a positive relationship between corporate citizenship and firm performance.

In South Africa, few studies have been found that examine the relationship between corporate citizenship and firm performance. Alessandri et al. (2009) aimed to establish whether BEE (considered an element of corporate citizenship in South Africa) has a positive impact on firm performance (using abnormal returns as a proxy for firm performance). Their findings were as follows. Firstly, when examined as an entire population, BEE deals do not produce abnormal returns for shareholders. However, for deals closed at a discount (indicative of a strong CSR motivation), the participating firm experiences positive abnormal returns. For deals closed at a premium (indicative of low CSR motivation), the participating firm experiences negative abnormal returns. Lastly, the size of the equity stake (another strong CSR indicator) is positively related with abnormal returns.

Chetty et al. (2015) examined the short-term impact of CSR announcements on financial returns of firms included in or excluded from the JSE SRI Index and determine whether there is a difference in the long-term financial performance between these two groups during the period under consideration (2004 to 2013). The event study methodology was used to measure short-term financial impact and shows that investors were rewarded in 2004 and 2012, when firms entered the index and were penalised in 2013, when firms exited the index. Regression analysis was used to measure long-term financial performance of various industries and produced mixed results for various industries.

Demetriades and Auret (2014) conducted a study similar to that of Chetty et al. (2015). They found that in the short-term, there was no significant correlation between firm

performance and CSR. In the long-term, they found that there was a positive relationship between firm performance and CSR.

2.7 Conclusion

From the above review of the literature, it is clear that the current capital structure theories are not meant to be general, but are meant to be conditional; each emphasising certain costs and benefits of alternative financing strategies. In addition, despite the evolution of capital structure theories, academics are still trying to resolve the capital structure puzzle (Barclay & Smith, 2005; Myers, 1984; Tudose, 2012).

Although numerous empirical studies on capital structure and firm performance have been conducted across developed and developing markets, the bulk of the studies are biased towards developed markets. Furthermore, the results are still inconclusive. In South Africa, the few studies that have been conducted have focused on the JSE main board. The study of SMEs focused on Small Business Advisory Bureau data, and was conducted a decade ago. Recently, there have been no studies found linking financial leverage and firm performance for SMEs, in particular those listed on the JSE AltX.

From a review of the theories that underpin corporate governance, it is clear that at its core, corporate governance is concerned with balancing the needs of numerous groups whilst focusing on the objectives of the organisation. However, the theories are not united with regards to how this is achieved. For example agency theory posits that managers will always put their own interests before those of the firm, whilst stewardship theory states that managers are trustworthy and are naturally good stewards for the firm. The extent to which achieving this balance assists an organisation achieve its objectives remains unclear due to the contradictory findings on the impact of corporate governance compliance on the performance of firms.

Corporate governance studies are disproportionally concentrated in developed countries (that is, the US and Europe) with similar institutional settings (Ntim, 2013). Similarly, as in most developing markets, there have been few studies (Alessandri et al., 2009; Chetty et al., 2015; Margaritis & Psillaki, 2007) examining the relationship between corporate citizenship (or CSR) and firm performance South Africa. Furthermore, corporate citizenship as an academic field of research in South Africa is a relatively new phenomenon (Visser, 2005). Most comprehensive research conducted in this field has been conducted by private, rather than academic institutions (Visser, 2005). No studies were identified that sought to establish the relationship between corporate citizenship and firm performance of SMEs in South Africa.

3 RESEARCH METHODOLOGY

3.1 Introduction

In order to examine the impact of capital structure and corporate citizenship on firm performance, the research was conducted using a quantitative, empirical research method using a correlational design. This section describes and justifies the choice of methodology that was used to address the research hypotheses. It details the population and unit of analysis, the sampling technique, the data collection tool and method, the data analysis and the assumptions and limitations.

3.2 Population and Unit of Analysis

The National Small Business Act (102 of 1996) section 1(xvi) defines a small business organisation as follows:

> "any entity, whether or not incorporated or registered under any law, which consists mainly of persons carrying on small business concerns in any economic sector, or which has been established for the purpose of promoting the interests of or representing small business concerns, and includes any federation consisting wholly or partly of such association, and also any branch of such organisation"

The National Small Business Amendment Act (26 of 2003) refines the classification of a small business as having up to 50 full time equivalent paid employees and a turnover of between R3 million and R32 million depending on sector. The Amendment Act classifies a medium business as having up to 200 full time equivalent paid employees and a turnover of between R5 million and R64 million depending on the sector. Table 6 shows the classification of SMEs in South Africa.

A population can be defined as a complete set of group members (Saunders & Lewis, 2012). For the purpose of this study, the population was all for-profit SMEs in South Africa as per the definition and classification of the National Small Business Act (102 of 1996) and the National Small Business Amendment Act (26 of 2003).

The unit of analysis is each SME in South Africa that satisfies the above definition and classification of an SME.

Table 6: Classification of SMEs in South Africa

Sector or Subsector in Accordance with the Standard Industrial Classification	Classification	Total Fulltime Equivalent of Paid Employees	Total Turnover	Total Gross Asset Value (Fixed Property Excluded)
Agriculture	Medium	100	R5m	R5m
	Small	50	R3m	R3m
Mining and Quarrying	Medium	200	R39m	R23m
	Small	50	R10m	R6m
Manufacturing	Medium	200	R51m	R19m
	Small	50	R13m	R5m
Electricity, Gas and Water	Medium	200	R51m	R19m
	Small	50	R13m	R5m
Construction	Medium	200	R26m	R5m
	Small	50	R6m	R1m
Retail and Motor Trade and Repair Services	Medium	200	R39m	R6m
	Small	50	R19m	R3m
Wholesale Trade, Commercial Agents and Allied Services	Medium	200	R64m	R10m
	Small	50	R32m	R5m
Catering, Accommodation and other Trade	Medium	200	R13m	R3m
	Small	50	R6m	R1m
Transport, Storage and communications	Medium	200	R26m	R6m
	Small	50	R13m	R3m
Finance and Business	Medium	200	R26m	R5m
	Small	50	R13m	R3m
Community, Social and Personal Services	Medium	200	R13m	R6m
	Small	50	R6m	R3m

3.3 Sampling

The sampling frame is the complete list of all the members of the total population (Saunders & Lewis, 2012). Since the sampling frame is not known, it was be appropriate to use the purposive sampling technique. This is a sampling technique whereby the researcher uses judgement to select the sample members based on the chosen sample's ability to meet the research objectives (Saunders & Lewis, 2012). According to Sharenet (2017), as at 06 October 2017, there were 77 companies which were either currently listed on or were delisted/suspended from the JSE AltX in the last six years. In compiling the sample for analysis, 29 companies in the financial services sectors were excluded due to their unique financial structure and regulatory requirements (Chen,

Chung, Hsu, & Wu, 2010; Kodongo et al., 2014; Ntim, 2013). This left 49 non-financial services firms remaining in the sample.

3.4 Data Collection Tool and Method

The study used secondary, unbalanced, panel data obtained from Bloomberg. The key advantage of using secondary data is that most of the time it is available in the public domain, negating the need to negotiate access to research participants or obtain permission to use the data (Saunders & Lewis, 2012). By combining the time series of cross-section observations, panel data allow for more informative data, more variability in the data, less multicollinearity among independent variables, more degrees of freedom and more efficiency. As such, panel data can enrich empirical analysis in ways that cross-section or time series data cannot. These include, among others, the ability to take into account heterogeneity by allowing for individual, firm specific variables and the ability to study the dynamics of change (Gujarati, 2004). The advantage of using Bloomberg in particular, is that it reports standardised financial statements over and above those reported in companies' annual reports. This facilitates comparison among companies who may report their financial statements in different formats. Of the 49 non-financial services firms remaining in the sample, six were removed due to either being recently listed and/or lack of data on Bloomberg, resulting in a final sample of 43 firms. Available data was collected for each firm during the period 2002 to 2016. The key limitation of the sample data was that there was missing company data for some of the time periods. To overcome this, the sample data was restructured into a dated panel using the firm identifier as the cross-sectional identifier and the year as the date identifier, prior to analysing the data. Table 7 shows the number of years with missing data and the corresponding number of firms. For example, the sample contained 5 firms with one year of missing data; and contained two firms with three years of missing data.

Furthermore, in some instances where company data was available for a particular year, data would be missing for at most three variables of interest, that is, enterprise value, sales and/or corporate citizenship index. The Bloomberg industry classification of the firms remaining in the sample is shown in Table 8.

Table 7: Number of Firms and Number of Years with Missing Data

Number of Years With Missing Data	Number of Firms
1	5
2	5
3	2
4	3
5	5
6	7
7	3
8	6
9	4
10	2
11	
12	
13	
14	1
Total No. of Firms	**43**

Table 8: Industry Classification of Sampled Firms

Industry Classification	No. of Firms in Sample	% of Firms in Sample
Communications	3	7,0%
Consumer Discretionary	6	14,0%
Consumer Staples	4	9,3%
Energy	1	2,3%
Health Care	4	9,3%
Industrials	7	16,3%
Materials	12	27,9%
Technology	6	14,0%
Total Sample	***43***	***100,0%***

In order to achieve the research objectives and answer the research questions, variables were defined based on previous studies in African markets (Abor, 2007; Fosu, 2013; Kodongo et al., 2014; Ntim, 2013; Olokoyo, 2013) and are shown in Table 9. Control variables, traditionally believed to impact firm performance, were included as part of the model.

Table 9: Definition of Variables

Firm Performance Variables	
ROA	$\frac{Operating\ Income}{Total\ Assets}$
ROE	$\frac{Operating\ Income}{Total\ Equity}$
Tobin's Q (TQ)	$\frac{Market\ Capitalisation + Book\ Value\ of\ Total\ Debt}{Total\ Assets}$
Capital Structure Variables	
Total Debt to Equity (TDE)	$\frac{Total\ Debt}{Total\ Equity}$
Total Debt to Total Assets (TDTA)	$\frac{Total\ Debt}{Total\ Assets}$
Corporate Citizenship Variable	
Corporate Citizenship Index	*10 Corporate Citizenship Provisions Specific to South Africa*
Control Variables	
Size	$ln(Total\ Assets)$
Annual Continuously Compounded Sales Growth Rate (SGrowth)	$ln\left(\frac{Sales_t}{Sales_{t-1}}\right)$
Asset Tangibility (AT)	$\frac{Net\ Fixed\ Assets}{Total\ Assets}$
South African Annual Growth Domestic Product Growth Rate (SA GDP)	*Annual GDP Growth Rate*

The corporate citizenship variable was defined as a corporate citizenship index comprising the 10 corporate citizenship provisions specific to South Africa and in line with King IV and Ntim's (2013) Social Corporate Governance Index. Each provision was tested against the information that appears in the integrated annual reports, allocating a "1" for an item that was disclosed, and a "0" for non-disclosure (Scholtz, 2014). Therefore each firm could obtain a minimum of "0" and a maximum of "10" for the corporate citizenship index. The 10 provisions of the corporate citizenship index are shown below:

1. Whether a narrative on how a firm is actually complying with and implementing employment equity laws in terms of gender, age, ethnicity and disabilities is disclosed.
2. Whether a narrative on how a firm is developing its employees is disclosed.
3. Whether a narrative on the actual measures taken by a firm to address occupational health and safety of its employees is disclosed.
4. Whether a narrative on how a firm is actually complying with and implementing the broad-based black economic empowerment, including black equity

ownership, preferential procurement, enterprise development, and executive management control is disclosed.

5. Whether a narrative on how a firm is dealing with fraud detection and response to fraud and corruption is disclosed.
6. Whether a narrative on how a firm is actually complying with and implementing rules and regulations on the environment is disclosed.
7. Whether a narrative on the existence of a code of ethics is disclosed.
8. Whether a firm's board is formed by at least 1 white and 1 non-white (board diversity on the basis of ethnicity) person.
9. Whether a firm's board is formed by at least 1 male and 1 female (board diversity on the basis of gender) person.
10. Whether a narrative on the actual community support and other corporate social investments or responsibilities is disclosed.

The data to define the variables was obtained from Bloomberg's standardised financial statements for each firm. The information to compile the corporate citizenship index was obtained from each firm's integrated annual reports retrieved from Bloomberg as well. The data on the South African Annual GDP growth rate was also obtained from Bloomberg. The data was captured in Microsoft Excel, imported into and analysed using the statistical software Eviews 9.

3.5 Data Analysis and Model Specification

Summary statistics were used to describe the data and provide insights about important features of the data (Montgomery, Runger, & Hubele, 1998). These include measures of central location (that is, the mean and median), measures of dispersion (that is, the minimum, maximum and range) and measures of variability (that is, the standard deviation and variance) (Albright, Winston, & Zappe, 2010). The correlation between explanatory variables were also examined to ensure that multicollinearity is not a serious problem (Brooks, 2014). Log transformations were made on the firm performance, capital structure and asset tangibility variables[1]. The reason for this is that log transformed variables have desirable statistical properties for model fitting; including, among others, rescaling the data so that the variance is more constant, overcoming the problem of heteroscedasticity (Brooks, 2014).

[1] Log transformed variables can be identified with the letter "L" before the variable name

In order to ensure that spurious/nonsense regressions are avoided, the variables were tested for stationarity (Gujarati, 2004). The Levin, Lin, and Chu (2002) unit root test was used to test for stationarity. Levin et al. (2002) posit that the test works well when there are between 10 and 250 cross sections and between 5 and 250 time series observations. In this study there were 43 cross sections and up to 15 time series observations per cross section. The null hypothesis specifies that all series in the panel contain a unit root, that is, are non-stationary and the alternative hypothesis specifies all series in the panel are stationary (Brooks, 2014).

In order to examine whether the current values of the performance variables (that is, ROA, ROE and Tobin's Q) can be explained by lagged values of the independent variables, a Granger causality test was run using two lags. The null hypothesis for this test is that the independent variable does not Granger cause the performance variable (Granger, 1969)

To examine the relationship between the performance of firm *i*, and the factors determining it at time *t*, the panel regression model can be specified as:

$$y_{it} = \alpha_i + \beta x_{it} + \theta_1 z_{1it} + \theta_2 z_{2it} + \theta_3 z_{3it} + \theta_4 z_{4t} + u_{it} \quad i = 1, \dots, N; t = 1, \dots, T \qquad (1)$$

where y_{it} is a firm performance variable (ROA, ROE or Tobin's Q); α_i, β, θ_1, θ_2, θ_3 and θ_4 are coefficients; x_{it} is a capital structure variable (TDE or TDTA) or the CCI variable; z_{1it} is the size variable, z_{2it} is the sales growth variable, z_{3it} is the asset tangibility variable, z_{4t} is the South African GDP growth rate variable and u_{it} is the error term .

The two prominent panel regression methods are the fixed effects models (FEM) and the random effects model (REM) (Brooks, 2014). Estimations based on the REM and FEM rely on the assumptions of ordinary least squares (OLS). Namely, the parameters are linear, the idiosyncratic errors term is independent and identically distributed, and the explanatory variables are strictly exogenous. When these conditions are met, the fixed effect estimators are unbiased and consistent. Random effects estimation requires an additional assumption – the group-level effect and the included explanatory variables must be independent in order to avoid the omitted variable bias. Only when this condition is met is the random effects specification unbiased, consistent and efficient. Therefore the correlation between the explanatory variables and group-level effects determines which of the two models to use (Dieleman & Templin, 2014). The term *fixed effects* is due to the fact that although the intercept term may differ across each individual company, it does not vary over time. It is also important to note that this study used the case of the FEM where the slope coefficients remain constant across both company and

time, in addition to the intercept term varying across each company but not varying across time (Gujarati, 2004). To allow for the fixed effect intercept term to vary between companies, the differential intercept dummy technique can be employed. Therefore the FEM equation (1) becomes:

$$y_{it} = \delta_1 + \delta_2 D_{2i} + \delta_3 D_{3i} + \ldots + \delta_N D_{Ni} + \beta x_{it} + \theta_1 z_{1it} + \theta_2 z_{2it} + \theta_3 z_{3it} + \theta_4 z_{4t} + u_{it} \quad (2)$$

where $D_{Ni} = 1$ if the observation belongs to firm *N* and *0* otherwise. *N – 1* dummy variables are used to avoid falling into the dummy-variable trap, that is, the situation of perfect multicollinearity between the dummy variables and the intercept (Brooks, 2014; Gujarati, 2004). Due to the use of dummy variables to estimate the fixed effects, this model is also known as the least-squares dummy variable (LSDV) model (Brooks, 2014).

In order to compensate for the lack of knowledge about the true model, the REM treats the intercept term α_i as a random variable with a mean value of α. The intercept term for each individual company can then be expressed as:

$$\alpha_i = \alpha + \varepsilon_i \quad (3)$$

where ε_i is a random error term with a mean of zero and variance of σ_ε^2. Substituting equation (3) in equation (1) results in:

$$y_{it} = \alpha + \beta x_{it} + \theta_1 z_{1it} + \theta_2 z_{2it} + \theta_3 z_{3it} + \theta_4 z_{4t} + \varepsilon_i + u_{it} \quad (4)$$

The F-test and the Breusch-Pagan LM test were used to test the appropriateness of the FEM and the REM respectively (Breusch & Pagan, 1980; Brooks, 2014). These tests help with the decision between a FEM or a REM and simple OLS regression. The null hypothesis for the F-test is that the firms have a common intercept, that is, no fixed effects. The null hypothesis for the Breush-Pagan test is that there is zero-covariance across firm-specific error terms, that is, no random effects. Therefore, the null hypothesis for the F-test (Breusch-Pagan LM test) must be rejected for the FEM (REM) to be appropriate. In instances where the null hypotheses of both the F-test and Breusch-Pagan LM tests were rejected, the Hausman test was employed to determine which model between the FEM and REM should be used. The null hypothesis for the Hausman test is that the REM estimates are consistent, meaning the REM is the preferred model over the FEM (Brooks, 2014). A model using simple pooled OLS regression was also estimated in addition to the FEM and REM estimations. However, since simple OLS assumes the intercepts are the same for each company and for each year, this may distort the true picture of the relationship between the dependent and independent variables across the different companies (Brooks, 2014; Gujarati, 2004).

To test the robustness of the chosen models, the generalised method of moments (GMM) estimator of dynamic panel data wherein unobserved individual effects are removed by orthogonal deviation was used. In empirical studies involving panel data, the GMM method is known to be flexible, general, efficient and robust (Kiviet, Pleus, & Poldermans, 2017). One of the reasons for this is that its implementation does not require the imposition of restrictions on the statistical behaviour of the economic variables (as is the case in the implementation FEM and REM) beyond those implied by economic theory (Zsohar, 2010). Restrictions implied by economic theory take the form of population moment conditions. Therefore, the GMM is a statistical method that combines observed economic data with the information in the population moment conditions to produce estimates of the unknown parameters (Zsohar, 2010). The raw, uncentred moments reveal important aspects of a distribution; for example the first four moments reveal information about the population mean, variance, skewness and kurtosis. The GMM is used when the number of moment conditions exceeds the number of unknown parameters (Zsohar, 2010).

Instrumental variables were defined to overcome the problem of endogeneity, that is, when one or more of the independent variables are correlated with the error term. Instrumental variables are correlated with endogenous (independent) variables, but not with the error term (Brooks, 2014). Lagged values (two lags) of the independent variable were specified as dynamic panel instruments and lagged values (one lag) of all independent variables were defined as the remaining instrument variables. The only equation where not all lagged values of the independent variables were used as instruments was the case when ROA was the dependent variable and TDTA was the independent variable. In this instance lagged values of all other independent variables were used as instruments, except those of the TDTA variable as it was found not to be an instrumental variable. The choice of weighting matrix is an important one since it affects the asymptotic variance of the GMM estimator. Hansen (1992) shows that an optimal (or asymptotically efficient) GMM estimator may be obtained by choosing the weighting matrix such that it converges to the inverse of the long-run covariance matrix. In this study, the White period weighting matrix (which is a heteroskedastic consistent estimator of the long-run covariance matrix) was chosen. Orthogonal deviation was chosen to transform the GMM estimator since it was found to perform better than that transformed by first difference (Hayakawa, 2009). The J-test was used to test whether the over-identifying statistics are valid, that is, that the instruments are valid and uncorrelated with the error term (Zsohar, 2010).

3.6 Assumptions and Limitations

The use of non-probability purposive sampling makes it impossible to examine the extent to which the sample is representative of the population (Welman, Kruger, & Mitchell, 2006). The limitation of using secondary data is that the researcher has no control over the quality of the data and the neutrality of how the data was compiled (Saunders & Lewis, 2012).

3.7 Conclusion

In an attempt to answer the research hypotheses, this section defined the population as all for-profit SMEs in South Africa. The sample was defined as all non-financial services firms that were either currently listed on or were delisted/suspended from the JSE AltX in the last six years. Company data was collected from Bloomberg and analysed using Eviews 9. The analysis included descriptive statistics, examination of the correlation matrix, Granger causality tests, estimation of equations using the FEM and REM; and robustness checks using the GMM. The following chapter presents the results of the analysis.

4 RESULTS AND DISCUSSION

4.1 Introduction

Chapter 4 highlights the results obtained from the data collection and analysis following the methodology outlined in chapter 3. The results of the summary statistics, correlation matrix, unit root tests, Granger causality tests and regression results are presented. In addition, this chapter discusses the results of the analysis using the research hypotheses as major headings and the literature review as a base.

4.2 Descriptive Statistics

The summary statistics in Table 10 show that the mean value for ROA is 3.36% compared with a mean value of ROE of 7.5% implying that on average, SMEs listed on the JSE AltX have a significantly higher ROE than ROA. Examining the standard deviation reveals that ROE has a significantly higher variability than ROA, suggesting that the ROE may have been drawn upwards by extreme values. However, the median values show a similar trend to that of the means. Therefore, this implies that SMEs use some degree of leverage to improve shareholders' returns. The Tobin's Q mean of 0.5443 indicates that most firms on the JSE AltX are undervalued relative to their book values.

Table 10: Descriptive Statistics

	LROA	LROE	LTQ	LTDE	LTDTA	CCI	SIZE	SGROWTH	LAT	SA_GDP
Mean	0.034	0.075	0.544	0.619	0.146	7.020	5.226	0.119	0.202	0.022
Median	0.042	0.101	0.499	0.596	0.086	8.000	5.514	0.067	0.137	0.025
Max.	0.718	2.621	1.526	3.874	1.060	10.000	7.532	9.705	0.600	0.056
Min.	-0.981	-2.424	-0.282	-5.242	0.000	0.000	2.286	-5.368	0.000	-0.015
Std.Dev.	0.184	0.429	0.265	0.850	0.170	2.756	1.158	0.970	0.176	0.018
Skew.	-0.215	-0.154	0.689	-2.203	2.335	-0.957	-0.335	3.186	0.878	-0.479
Kurtosis	8.176	12.679	4.183	16.239	10.527	2.926	2.207	46.932	2.550	3.205
Obs.	255	255	255	255	255	255	255	255	255	255

The measures of capital structure show that on average, SMEs employ 0.62 South African rands of debt for every rand of equity employed and only about 15% of firms' total assets are financed by debt. Fixed assets make up 20% of total assets. The mean value of 7.02 for the CCI suggests that most SMEs on the JSE AltX embrace good corporate citizenship practices; however, the high variability implies different levels of compliance among firms. The average log transformed asset value is 5.2 and the

average annual continuously compounded sales growth rate is 12% for the sample. During the period of analysis, the South African GPD growth rate averaged 2.2% per annum. All variables have a non-zero skewness and a kurtosis that is not three meaning they do not have a normal distribution.

Table 11 presents the correlation between all the variables considered under the study. The correlation coefficients between independent variables are generally low, indicating that multicollinearity is not a serious problem in the estimations. The correlation coefficients between ROA and TDE, TDTA and CCI are 0.007, -0.169 and 0.052 respectively. Based on the sign and magnitude of these correlation coefficients, we can expect a positive, but insignificant relationship between ROA and TDE; a negative and insignificant relationship between ROA and TDTA; and a positive and insignificant relationship between ROA and CCI. The correlation coefficient between ROE and TDE, TDTA and CCI are -0.556, 0.077 and 0.082 respectively. Therefore, a negative and significant relationship can be expected between ROE and TDE; a positive and insignificant relationship can be expected between ROE and TDTA; and a positive and insignificant relationship can be expected between ROE and CCI. The correlation coefficient between Tobin's Q and TDE, TDTA and CCI are -0.087, 0.014 and -0.014 respectively. Therefore, a negative and insignificant relationship can be expected between Tobin's Q and TDE; a positive and insignificant relationship can be expected between Tobin's Q and TDTA; and a negative and insignificant relationship can be expected between Tobin's Q and CCI. It should however be noted that correlation does not indicate causation, but is simply a measure of the degree of linear association between two variables (Brooks, 2014). Regression analysis on the other hand is a more flexible and powerful tool than correlation since it tries to estimate or predict the average value of the dependent variable based on the fixed values of other variables (Brooks, 2014; Gujarati, 2004).

Table 11: Correlation Matrix of Variables

	LROA	LROE	LTQ	LTDE	LTDTA	CCI	SIZE	SGROWTH	LAT	SA_GDP
LROA	1.000									
LROE	0.571	1.000								
LTQ	0.227	0.181	1.000							
LTDE	0.007	-0.556	-0.087	1.000						
LTDTA	-0.169	0.077	0.014	-0.054	1.000					
CCI	0.052	0.082	-0.014	0.036	0.021	1.000				
SIZE	-0.023	0.102	-0.287	0.099	0.301	0.101	1.000			
SGROWTH	0.131	0.084	0.163	0.022	-0.070	-0.052	0.068	1.000		
LAT	0.007	0.055	-0.062	0.061	0.422	0.037	0.406	-0.028	1.000	
SA_GDP	-0.067	-0.071	0.236	0.003	-0.053	-0.026	-0.173	0.146	-0.041	1.000

Table 12 shows the results of the Levin, Lin and Chu unit root tests for both the untransformed and log transformed variables. The results show that the null hypothesis that all series in the panel contain a unit root is rejected at the 1% level of significance. This implies that the data for all variables are stationary. This is important because empirical analysis involving time series data assumes that the underlying time series is stationary since stationarity strongly influences the behaviour and properties of both time series and panel data (Brooks, 2014; Gujarati, 2004). In particular, the use on non-stationary data violates the standard assumptions for asymptotic analysis and can lead to spurious (or nonsense) regressions (Brooks, 2014).

Table 12: Unit Root Test Results

	ROA	ROE	TQ	TDE	TDTA	CCI	Size	SGrowth	AT	SA_GDP
Panel A: Untransformed Variables										
LLC Stat	-12,004	-219,084	-30,032	-590,920	-6,788	-12,761	-16,836	-21,606	-9,057	-12,299
p-value	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
Panel B: Transformed Variables										
LLC Stat	-11,823	-24,987	-13,798	-37,481	-8,546	-12,761	-16,836	-21,606	-9,951	-12,299
p-value	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000

4.3 Granger Causality Tests

Table 13 to Table 15 show the results of the Granger causality tests at two lags for all the firm performance dependent variables, namely ROA, ROE and Tobin's Q. For ROA, with the exception of sales growth, the Granger causality test results show that we fail to reject the null hypotheses that the different independent variables do not Granger cause ROA at the 5% significance level. For ROE, with the exception of total debt to total assets, we fail to reject the null hypotheses that the remaining independent variables do not Granger cause ROA at the 5% significance level. For Tobin's Q, with the exception of size, we fail to reject the null hypotheses that the remaining independent variables do not Granger cause ROA at the 5% significance level. This implies that most of the independent variables do not Granger cause the performance variables. These results need to be confirmed with regression analyses.

Table 13: ROA Granger Causality Results

Null Hypothesis	F-Statistic	p-value
LTDE does not Granger Cause LROA	**1.226**	**0.295**
LROA does not Granger Cause LTDE	1.320	0.269
LTDTA does not Granger Cause LROA	**1.066**	**0.346**
LROA does not Granger Cause LTDTA	8.892	0.000
CCI does not Granger Cause LROA	**0.290**	**0.749**
LROA does not Granger Cause CCI	1.558	0.213
SIZE does not Granger Cause LROA	**0.011**	**0.989**
LROA does not Granger Cause SIZE	1.726	0.180
SGROWTH does not Granger Cause LROA	**3.486****	**0.032**
LROA does not Granger Cause SGROWTH	9.095	0.000
LAT does not Granger Cause LROA	**0.282**	**0.754**
LROA does not Granger Cause LAT	0.732	0.482
SA_GDP does not Granger Cause LROA	**2.474***	**0.086**
LROA does not Granger Cause SA_GDP	0.019	0.981

Note: Granger causality at two lags; **Significant at 5% level; *Significant at 10% level

Table 14: ROE Granger Causality Results

Null Hypothesis	F-Statistic	p-value
LTDE does not Granger Cause LROE	**1.179**	**0.309**
LROE does not Granger Cause LTDE	2.590	0.077
LTDTA does not Granger Cause LROE	**4.202****	**0.016**
LROE does not Granger Cause LTDTA	1.442	0.238
CCI does not Granger Cause LROE	**0.642**	**0.527**
LROE does not Granger Cause CCI	0.672	0.512
SIZE does not Granger Cause LROE	**1.546**	**0.215**
LROE does not Granger Cause SIZE	8.142	0.000
SGROWTH does not Granger Cause LROE	**0.955**	**0.386**
LROE does not Granger Cause SGROWTH	0.566	0.569
LAT does not Granger Cause LROE	**1.021**	**0.361**
LROE does not Granger Cause LAT	0.687	0.504
SA_GDP does not Granger Cause LROE	**1.280**	**0.280**
LROE does not Granger Cause SA_GDP	0.454	0.636

Note: Granger Causality at two lags; **Significant at 5% level

Table 15: Tobin Q Granger Causality Results

Null Hypothesis	F-Statistic	p-value
LTDE does not Granger Cause LTQ	**2.185**	**0.115**
LTQ does not Granger Cause LTDE	0.003	0.997
LTDTA does not Granger Cause LTQ	**0.915**	**0.402**
LTQ does not Granger Cause LTDTA	5.145	0.006
CCI does not Granger Cause LTQ	**0.014**	**0.986**
LTQ does not Granger Cause CCI	0.278	0.757
SIZE does not Granger Cause LTQ	**11.939*** **	**0.000**
LTQ does not Granger Cause SIZE	4.966	0.008
SGROWTH does not Granger Cause LTQ	**1.815**	**0.166**
LTQ does not Granger Cause SGROWTH	8.707	0.000
LAT does not Granger Cause LTQ	**2.789***	**0.063**
LTQ does not Granger Cause LAT	4.319	0.014
SA_GDP does not Granger Cause LTQ	**2.520***	**0.082**
LTQ does not Granger Cause SA_GDP	5.447	0.005

Note: Granger causality at two lags; ***Significant at 1% level; *Significant at 10% level

4.4 Capital Structure and Firm Performance

4.4.1 ROA as Performance Measure

Table 16 shows the regression results when ROA is used as a performance measure and TDE and TDTA are used as capital structure variables. From Table 16, both the F-test and the Breusch-Pagan LM test reject the null hypotheses, implying that both the FEM and REM are appropriate specifications. The result of the Hausman test rejects the null hypothesis that the REM is the preferred specification; therefore the FEM is the suitable model. When both TDE and TDTA are used as capital structure variables, the adjusted-R^2 shows that the variables jointly explain about 57% of the variation in the ROA of firms listed on the JSE AltX. Under the FEM, neither of the capital structure variables significantly impact ROA. Therefore we fail to reject the null hypothesis that there is no significant relationship between ROA and capital structure.

Table 16: Capital Structure Results with ROA as Performance Measure

	LTDE as Proxy			LTDTA as Proxy		
	OLS	**FEM**	**REM**	**OLS**	**FEM**	**REM**
Constant	**-0.015**	**0.167***	**0.039**	**-0.025**	**0.187****	**0.043**
	0.814	(0.066)	(0.620)	(0.690)	(0.041)	(0.585)
Total Debt to Equity (LTDE)	**0.026***	**0.007**	**0.016**			
	(0.073)	(0.571)	(0.183)			
Total Debt to Total Assets (LTDTA)				**-0.177****	**-0.129**	**-0.130***
				(0.037)	(0.128)	(0.091)
Firm Size	**0.001**	**-0.012**	**-0.003**	**0.009**	**-0.011**	**0.001**
	(0.914)	(0.463)	(0.805)	(0.453)	(0.490)	(0.927)
Sales Growth	**0.059*****	**0.047*****	**0.047*****	**0.057*****	**0.046*****	**0.046*****
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Asset Tangibility	**0.063**	**-0.432****	**-0.117**	**0.123**	**-0.441*****	**-0.107**
	(0.447)	0.010	(0.324)	(0.158)	0.008	(0.367)
SA GDP	**-0.295**	**-0.671**	**-0.464**	**-0.161**	**-0.701**	**-0.427**
	(0.692)	(0.227)	(0.392)	(0.829)	0.205	(0.428)
Adjusted R Squared	**0.071**	**0.568**		**0.090**	**0.571**	
F-statistic		**9.914**			**9.978**	
		(0.000)			(0.000)	
Breusch-Pagan LM Test			**163.217**			**159.448**
			(0.000)			(0.000)
Hausman Test			**14.941**			**16.016**
			(0.011)			(0.007)

Note: ***Significant at 1% level; **Significant at 5% level; *Significant at 10% level
p-values are reported in parenthesis; Highlighted column indicates preferred specification

Sales growth and asset tangibility are the two most important variables affecting the ROA of SMEs listed on the JSE AltX. Coefficient estimates show that an increment in sales growth of 100% would elicit a 4.6% increase in ROA, *ceteris paribus*; and an increment in tangible assets by 100% would elicit a 44% decrease in ROA, *ceteris paribus*. The OLS output incorrectly suggests a significant positive relationship between ROA and TDE at the 10% significant level and a significant negative relationship between ROA and TDTA at the 5% significant level; distorting the true picture of the relationship between ROA and the chosen capital structure variables.

4.4.2 ROE as Performance Measure

Table 17 shows the regression results when ROE is used as a performance measure and TDE and TDTA are used as capital structure variables. From Table 17, both the F-test and the Breusch-Pagan LM test reject the null hypotheses, suggesting that both the FEM and REM are suitable specifications. The result of the Hausman test rejects the null hypothesis that the REM is the preferred specification; therefore the FEM is the appropriate model. The adjusted-R^2 shows that the variables jointly explain around 31% to 36% of the variation in the ROE of SMEs listed on the JSE AltX. Both capital structure variables significantly impact ROE, albeit in different ways.

Table 17: Capital Structure Results with ROE as Performance Measure

	LTDE as Proxy			LTDTA as Proxy		
	OLS	**FEM**	**REM**	**OLS**	**FEM**	**REM**
Constant	**0.014**	**1.060*** **	**0.222**	**0.054**	**0.989*** **	**0.261**
	(0.911)	(0.000)	(0.153)	(0.680)	(0.000)	0.103
Total Debt to Equity (LTDE)	**-0.129*** **	**-0.163*** **	**-0.133*** **			
	(0.000)	(0.000)	(0.000)			
Total Debt to Total Assets (LTDTA)				**0.422** **	**0.576** **	**0.553*** **
				(0.018)	(0.014)	(0.003)
Firm Size	**0.027**	**-0.092** **	**-0.004**	**-0.001**	**-0.128*** **	**-0.038**
	(0.273)	(0.029)	(0.884)	(0.964)	(0.003)	(0.199)
Sales Growth	**0.021**	**0.049***	**0.028**	**0.024**	**0.055** **	**0.034**
	(0.441)	(0.065)	(0.253)	(0.378)	(0.042)	(0.182)
Asset Tangibility	**0.067**	**-1.894*** **	**-0.127**	**-0.088**	**-1.503*** **	**-0.239**
	(0.693)	(0.000)	(0.563)	(0.627)	(0.001)	(0.302)
SA GDP	**0.966**	**-1.394**	**0.340**	**0.378**	**-1.773**	**-0.183**
	(0.528)	(0.347)	(0.809)	(0.808)	(0.247)	(0.900)
Adjusted R Squared	**0.062**	**0.357**		**0.022**	**0.311**	
F-statistic		**3.099**			**2.841**	
		(0.000)			(0.000)	
Breusch-Pagan Test			**13.761**			**18.064**
			(0.000)			(0.000)
Hausman Test			**26.606**			**17.105**
			(0.000)			(0.004)

Note: ***Significant at 1% level; **Significant at 5% level; *Significant at 10% level
p-values are reported in parenthesis; Highlighted column indicates preferred specification

There is a negative relationship between total debt to equity and ROE at the 1% significant level and a positive relationship between total debt to total assets at the 5% significant level. Coefficient estimates show that an increment of 100% in total debt to equity would result in a decrease of 16% in ROE *ceteris paribus*; and an increment of

100% in total debt to total assets would result in an increase of 58% in ROE, *ceteris paribus*. Firm size, sales growth, and asset tangibility also significantly affect the ROE of firms listed on the JSE AltX. In the ROE case, the results of the pooled OLS are similar to those of both the FEM and REM for both capital structure variables.

4.4.3 Tobin's Q as Performance Measure

Table 18 shows the regression results when Tobin's Q is used as a performance measure and TDE and TDTA are used as capital structure variables. From Table 18, both the F-test and the Breusch-Pagan LM test reject the null hypotheses, indicating that both the FEM and REM are appropriate specifications. The result of the Hausman test fails to reject the null hypothesis that the REM is the preferred specification. Total debt to total assets has a positive relationship with Tobin's Q at the 10% level of significance and total debt to equity was found to have no significant relationship with Tobin's Q. Coefficient estimates show that an increment of 100% in total debt to total assets would result in an increase of 20% in Tobin's Q, *ceteris paribus*. Firm size, sales growth, and South Africa's GDP growth rate were found to also significantly affect the Tobin's Q of firms listed on the JSE AltX. The OLS results for both TDE and TDTA are the same as those for the REM. However, for TDTA, they are only similar to those of the REM.

Table 18: Capital Structure Results with Tobin's Q as Performance Measure

	LTDE as Proxy			LTDTA as Proxy		
	OLS	**FEM**	**REM**	**OLS**	**FEM**	**REM**
Constant	**0.826*** **	**0.854*** **	**0.829*** **	**0.835*** **	**0.844*** **	**0.838*** **
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Total Debt to Equity (LTDE)	**-0.019**	**-0.016**	**-0.019**			
	(0.251)	(0.411)	0.281			
Total Debt to Total Assets (LTDTA)				**0.208****	**0.156**	**0.201***
				(0.034)	0.282	(0.060)
Firm Size	**-0.062*** **	**-0.061****	**-0.062*** **	**-0.070*** **	**-0.067*** **	**-0.070*** **
	(0.000)	(0.020)	(0.000)	(0.000)	(0.009)	(0.000)
Sales Growth	**0.066*** **	**0.063*** **	**0.066*** **	**0.068*** **	**0.065*** **	**0.068*** **
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Asset Tangibility	**0.074**	**-0.087**	**0.055**	**0.002**	**-0.051**	**0.001**
	(0.435)	(0.740)	(0.654)	0.981	(0.844)	(0.993)
SA GDP	**1.944****	**1.7838****	**1.894****	**1.921****	**1.823****	**1.898****
	(0.025)	(0.041)	(0.024)	0.026	(0.037)	(0.023)
Adjusted R Squared	**0.154**	**0.348**		**0.163**	**0.349**	
F-statistic		**1.909**			**1.834**	
		(0.002)			(0.003)	
Breusch-Pagan LM Test			**10.180**			**9.486**
			(0.000)			(0.002)
Hausman Test			**1.564**			**0.948**
			(0.906)			(0.967)

Note: ***Significant at 1% level; **Significant at 5% level; *Significant at 10% level
p-values are reported in parenthesis; Highlighted column indicates preferred specification

4.4.4 Robustness Tests

The GMM estimation results for the capital structure variables are shown in Table 19. For all equations, the instrument rank (between 39 and 41) is greater than the number of estimated coefficients (that is, six). Based on the J-statistics and associated p-values for each equation, we fail to reject the null hypothesis that the over-identifying restrictions are valid.

Comparing the results of the FEM and GMM when ROA was set as the dependent variable and TDE set as the independent variable; similar results were obtained with the exception of TDE and firm size, which were found to be statistically insignificant under the FEM but to be statistically significant under the GMM. However closer examination of the magnitude of the coefficients, that is, less than 0.025 for both TDE and firm size, imply economic insignificance. When TDTA was set as the independent variable, the coefficient of TDTA was found to be statistically insignificant under the FEM, but

economically and statistically significant under the GMM. Firm size was found to be statistically insignificant under the FEM; and statistically significant and economically insignificant under the GMM. The SA GDP growth rate was found to be statistically insignificant under FEM; and statistically and economically significant under the GMM when TDTA was used as a capital structure proxy, but insignificant when TDE was used as a leverage measure.

Table 19: Capital Structure GMM Results

	LTDE as Proxy			LTDTA as Proxy		
Dependent Variable	**LROA**	**LROE**	**LTQ**	**LROA**	**LROE**	**LTQ**
ROA (1 Lag)	**0.174*** **			**0.148*** **		
	(0.000)			(0.000)		
ROE (1 Lag)		**-0.271*** **			**-0.170**	
		(0.000)			(0.000)	
Tobin's Q (1 Lag)			**0.408*** **			**0.411**
			(0.000)			(0.000)
Total Debt to Equity (LTDE)	**0.022*** **	**-0.202*** **	**-0.023*** **			
	(0.000)	(0.000)	(0.001)			
Total Debt to Total Assets (LTDTA)				**-0.119*** **	**0.384*** **	**0.091*** **
				(0.000)	(0.000)	(0.001)
Firm Size	**0.012*** **	**-0.245*** **	**-0.107*** **	**0.022*** **	**-0.293*** **	**-0.114*** **
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Sales Growth	**0.054*** **	**0.001**	**0.016** **	**0.051*** **	**0.010*** **	**0.021*** **
	(0.000)	(0.591)	(0.032)	(0.000)	(0.000)	(0.000)
Asset Tangibility	**-0.371*** **	**-3.676*** **	**-0.538*** **	**-0.426*** **	**-2.852*** **	**-0.497*** **
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
SA GDP	**-0.050**	**-3.125*** **	**1.363*** **	**-0.150*** **	**-3.280*** **	**1.353*** **
	(0.369)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
J-Statistic	**40.756**	**33.794**	**31.935**	**38.028**	**34.498**	**35.367**
	(0.232)	(0.478)	(0.520)	(0.333)	(0.444)	(0.357)
Instrument Rank	**41**	**40**	**39**	**41**	**40**	**39**

Note: ***Significant at 1% level; **Significant at 5% level; *Significant at 10% level;
p-values are reported in parenthesis

Comparing the results of the FEM and GMM when ROE was set as the dependent variable and TDE set as the independent variable; similar results were obtained with the exception of sales growth which and SA GDP. Sales growth was found to be statistically and economically significant under the FEM and statistically insignificant under the GMM. SA GDP was found to be statistically insignificant under the FEM and statistically significant under the GMM. When TDTA was set as the independent variable, SA GDP

was found to be statistically insignificant under the FEM and statistically and economically significant under GMM.

Comparing the results of the REM and GMM when Tobin's Q was set as the dependent variable and TDE set as the independent variable; similar results were obtained with the exception of TDE and asset tangibility, which were found to be statistically insignificant under the REM but to be statistically significant under the GMM. The coefficient of TDE is less than 0.025, implying economic insignificance. When TDTA was set as the independent variable, similar results were found with the exception of asset tangibility which was found to be statistically insignificant under the REM and economically and statistically insignificant under the GMM.

4.4.5 Discussion

4.4.5.1 ROA as a Firm Performance Measure

Using total debt to equity as a proxy for capital structure, no statistically (and economically) significant relationship was found when ROA was used as a firm performance variable for both the FEM and GMM. This finding is in line with that of Chadha and Sharma (2015) and provides evidence in support of Modigliani and Miller's first proposition. Other studies (Kodongo et al., 2014; Olokoyo, 2013) found TDE had a negative effect on ROA. This suggests that ROA of SMEs is independent of its debt to equity ratio. This is highly unlikely since the more indebted a firm, the more likely financing costs are to diminish a firm's profits (that is, the efficiency of the firm to generate profit from its assets declines) negatively affecting ROA. A possible explanation for this unexpected result could be attributed to the chosen sample since the correlation coefficient between ROA and TDE was found to be very low (that is, 0.007) and the ROA mean was found to be 3.6%.

Using total debt to total assets as a proxy for capital structure, a negative but insignificant relationship was found when ROA was used as a leverage measure using the FEM; however, this negative relationship was found to be significant with the GMM estimation as can be expected and similar to other studies (Hossain & Nguyen, 2016; Salameh et al., 2012). This finding provides evidence in support of the pecking order theory, the trade-off theory and the agency cost (of debt) theory.

Under both FEM and GMM estimations, sales growth was found to have a significant positive relationship with ROA as sales growth improves profitability, positively impacting ROA similar to the findings of Chadha and Sharma (2015) and (Chadha & Sharma,

2015); Kodongo et al. (2014); Salameh et al. (2012). Asset tangibility, on the other hand, was found to have a significant negative relationship with ROA similar to the findings of Adewale and Ajibola (2013), Chadha and Sharma (2015) and Kodongo et al. (2014). For manufacturing firms, asset tangibility would be expected to be positively correlated with earning potential and ultimately profitability since it would enhance a firm's ability to produce. In addition, firms with more tangible assets have more capacity to borrow, since their assets can be used as collateral. However, for retail or service firms, the opposite is true. An investment in tangible assets would lock in cash in fixed assets which do not generate income. Since the majority of firms on the AltX are either in the retail or service sectors (also confirmed by the low mean value for asset tangibility of 20%), the negative relationship between asset tangibility and ROA is sensible. The finding of a negative relationship, though not always significant, between ROA and economic growth opportunities can be expected since during periods of economic growth, companies tend to invest in assets. It would be interesting to examine the relationship between ROA and lagged values of economic growth, which is likely to be positive as companies start to generate income from their asset investments. This would be particularly true for manufacturing firms.

4.4.5.2 ROE as a Performance Measure

When ROE was used as a firm performance variable (for both FEM and GMM), a significant negative relationship was found when TDE was used as a capital structure variable and a significant positive relationship was found when TDTA was used as a capital structure variable. These findings are similar to those of Adewale and Ajibola (2013), Chadha and Sharma (2015) and Kodongo et al. (2014). The significant negative relationship found when TDE was used as a proxy for capital structure provides evidence in support of the pecking order theory, the trade-off theory and the agency cost (of debt) theory. This suggests that SME's would rather use internal sources of financing (possibly to protect the equity positions of the managers who are typically the founders in SMEs) and the more profitable ones would require less debt since they would have greater internally generated cash reserves. This could also suggest that SMEs borrow beyond the optimal debt equity ratio, where financial distress costs outweigh the benefits of the interest tax shield. The significant positive relationship found when TDTA was used as a capital structure variable provides evidence in support of Modigliani and Miller's second proposition, the signalling theory, free cash flow theory and the agency cost (of equity) theory. This result suggests that SMEs would borrow to reduce the free cash flow available and the opportunity for management to embark on wasteful activities. Similar to ROA, a significant negative relationship was found between asset tangibility and ROE

and a significant positive relationship between sales growth and ROE. These results are similar to those of Abor (2005), Adewale and Ajibola (2013), Chadha and Sharma (2015), Kodongo et al. (2014) and Prahalathan and Ranjany (2011). Strangely, firm size is found to have a negative relationship with ROE contradicting the results of most other studies which found a positive or no relationship between the two variables (Abor, 2005; Adewale & Ajibola, 2013; Chadha & Sharma, 2015; Kodongo et al., 2014; Prahalathan & Ranjany, 2011). This implies one of the following. Firstly, SMEs are biased towards equity to fund their growth and do not make full use of financial leverage. Secondly, SMEs find it challenging to efficiently manage growth, negatively impacting profitability. The SA GDP growth rate was found to have no effect under the FEM estimation, but similar to ROA, was found to have a significant negative impact on ROE under the GMM estimation.

4.4.5.3 Tobin's Q as a Performance Measure

Using Tobin's Q as a firm performance variable, no significant relationship was found under both the REM and GMM when TDE was used as a capital structure proxy corroborating the studies of Chadha and Sharma (2015) and Kodongo et al. (2014). This provides evidence in support of Modigliani and Miller's first proposition of capital structure's irrelevance (Modigliani & Miller, 1958). However, under both the REM and GMM, when TDTA was used as a capital structure proxy, a significant positive relationship was found between TDTA and Tobin's Q similar to the findings of Kazempour and Aghaei (2015) and Olokoyo (2013). Similar to the findings between ROE and TDTA, this provides evidence in support of Modigliani and Miller's second proposition, signalling theory, free cash flow theory and the agency cost (of equity) theory. Once again comparable to ROE, a significant negative relationship was found between firm size and Tobin's Q and a significant positive relationship was found between sales growth and Tobin's Q supporting the findings of Chadha and Sharma (2015); and in conflict with those of Chadha and Sharma (2015) and Kodongo et al. (2014) who found no significant relationship between Tobin's Q and sales growth. Similar to the findings of Chadha and Sharma (2015), Tobin's Q was found to have a significant and negative relationship with asset tangibility. A significantly positive relationship was found between the GDP growth rate (which represents growth opportunities in the economy) and Tobin's Q. This is sensible since Tobin's Q is a market-to-book value indicator and markets are generally bullish in an economy that presents growth opportunities.

The results of this study are mixed similar to other empirical studies conducted in both developed and developing markets (Abor, 2007; Adewale & Ajibola, 2013; Cole et al.,

2015; Fosu, 2013; Hossain & Nguyen, 2016; Kazempour & Aghaei, 2015; Margaritis & Psillaki, 2007; Olokoyo, 2013; Salameh et al., 2012). Fosu (2013) found that capital structure (using TDTA as a proxy) had a significant positive effect on ROA using 257 firms listed on the JSE mainboard. This contradicts this study's finding of no relationship between ROA and capital structure. The contradictory findings could be due to differences between the firms on the JSE mainboard and those listed on the JSE AltX. Abor (2007), who examined the relationship between firm performance and capital structure among SMEs in South Africa, also found mixed results in all three directions, that is, a positive relationship, a negative relationship or no relationship between firm performance and various capital structure variables.

The above discussion highlights the capital structure puzzle at play. Although the results are mixed, the following insights can be gleaned pertaining to the impact of capital structure on the performance of SMEs in South Africa. Firstly, the choice of both estimation method and dependent and explanatory variables can impact regression outputs. Secondly, SMEs are not a homogeneous group and should not be treated as such. Differences among SMEs by sector and further by ownership structure within a chosen sector need to be understood. For example, an SME operating in the fast moving consumer goods sector is different from that providing technology services; and an SME that is majority owned and managed by founders is different from that majority owned by the outside investors and managed by management who are not the SME's founders.

4.5 Corporate Citizenship and Firm Performance

4.5.1 ROA as Performance Measure

Table 20 shows the regression results when ROA is used as a performance measure and CCI is used as a corporate citizenship variable. The results of both the F-test and the Breusch-Pagan LM test reject the null hypotheses, implying that both the FEM and REM are appropriate specifications. The result of the Hausman test rejects the null hypothesis that the REM is the preferred specification; therefore the FEM is the suitable model. The adjusted-R^2 shows that the variables jointly explain about 52% of the variation in the ROA of firms listed on the JSE AltX. Under the FEM specification, we fail to reject the null hypothesis that there is no significant relationship between CCI and ROA. The results for the control variables are similar to those achieved under the capital structure models, that is, that sales growth and asset tangibility are the two most important variables affecting the ROA of SMEs listed on the JSE AltX. In addition, SA GDP growth has a significant negative relationship at the 10% significant level.

Table 20: Corporate Citizenship Results with ROA as Performance Measure

	CCI as Corporate Citizenship Proxy		
	OLS	**FEM**	**REM**
Constant	**0.057**	**0.390*** **	**0.156**
	(0.368)	(0.004)	(0.102)
Corporate Citizenship Index (CCI)	**0.005**	**-0.006**	**-0.003**
	(0.201)	(0.279)	(0.563)
Firm Size	**-0.010**	**-0.032**	**-0.013**
	(0.380)	(0.185)	(0.452)
Sales Growth	**0.031****	**0.026*** **	**0.028*** **
	(0.010)	(0.006)	(0.002)
Asset Tangibility	**0.040**	**-0.657*** **	**-0.170**
	(0.576)	(0.000)	(0.130)
SA GDP	**-1.062**	**-0.964***	**-0.762**
	(0.112)	(0.061)	(0.123)
Adjusted R Squared	0.018	0.525	
F-test		**8.039**	
		(0.000)	
Breusch-Pagan LM Test			**181.570**
			(0.000)
Hausman Test			**15.694**
			(0.008)

Note: ***Significant at 1% level; **Significant at 5% level; *Significant at 10% level
p-values are reported in parenthesis; Highlighted column indicates preferred specification

4.5.2 ROE as Performance Measure

Table 21 shows the regression results when ROE is used as a performance measure and CCI is used as a corporate citizenship variable. The results of both the F-test and the Breusch-Pagan LM test reject the null hypotheses, indicating that both the FEM and REM are appropriate specifications. The result of the Hausman test fails to reject the null hypothesis that the REM is the preferred specification. Under the REM specification, the results show no significant relationship between CCI and ROE. Curiously, none of the control variables significantly affect ROE.

Table 21: Corporate Citizenship Results with ROE as Performance Measure

	CCI as Corporate Citizenship Proxy		
	OLS	**FEM**	**REM**
Constant	**0.135**	**0.727***	**0.135**
	(0.512)	(0.088)	(0.512)
Corporate Citizenship Index (CCI)	**0.001**	**-0.012**	**0.001**
	(0.945)	(0.469)	(0.945)
Firm Size	**-0.000**	**-0.093**	**-0.007**
	(0.851)	(0.227)	(0.851)
Sales Growth	**0.035**	**0.041**	**0.035**
	(0.193)	(0.160)	(0.193)
Asset Tangibility	**0.040**	**-0.187**	**0.040**
	(0.867)	(0.741)	(0.867)
SA GDP	**-1.525**	**-2.254**	**-1.525**
	(0.311)	(0.162)	(0.311)
Adjusted R Squared	0.007	0.166	
F-test		**2.369**	
		(0.000)	
Breusch-Pagan LM Test			**22.999**
			(0.000)
Hausman Test			**4.536**
			(0.475)

Note: ***Significant at 1% level; **Significant at 5% level; *Significant at 10% level p-values are reported in parenthesis; Highlighted column indicates preferred specification

4.5.3 Tobin's Q as Performance Measure

Table 22 shows the regression results when Tobin's Q is used as a performance measure and CCI is used as a corporate citizenship variable. The results of both the F-test and the Breusch-Pagan LM test reject the null hypotheses, implying that both the FEM and REM are appropriate specifications. The result of the Hausman test fails to reject the null hypothesis that the REM is the preferred specification.. Under the REM, the results show no significant relationship between CCI and Tobin's Q. The results for the control variables are similar to those achieved under the capital structure models, that is, that firm size, sales growth and South Africa's GDP growth rate are the most important variables affecting the ROA of SMEs listed on the JSE AltX.

Table 22: Corporate Citizenship Results with Tobin's Q as Performance Measure

	CCI as Corporate Citizenship Proxy		
	OLS	**FEM**	**REM**
Constant	**0.807*** **	**0.995*** **	**0.827*** **
	(0.000)	(0.000)	(0.000)
Corporate Citizenship Index (CCI)	**0.003**	**-0.005**	**0.000**
	(0.653)	(0.632)	(0.982)
Firm Size	**-0.069*** **	**-0.087** **	**-0.069*** **
	(0.000)	(0.053)	(0.001)
Sales Growth	**0.044*** **	**0.044** **	**0.047*** **
	(0.000)	(0.011)	(0.003)
Asset Tangibility	**0.107**	**-0.080**	**0.096**
	(0.270)	(0.807)	(0.458)
SA GDP	**2.441*** **	**2.238** **	**2.374*** **
	(0.007)	(0.017)	(0.007)
Adjusted R Squared	**0.1295**	**0.240**	
F-test		**1.950**	
		(0.002)	
Breusch-Pagan LM Test			**7.657**
			(0.006)
Hausman Test			**1.469**
			(0.917)

Note: ***Significant at 1% level; **Significant at 5% level; *Significant at 10% level
p-values are reported in parenthesis; Highlighted column indicates preferred specification

4.5.4 Robustness Tests

The GMM estimation results for the corporate citizenship index are shown in Table 23. For all equations, the instrument rank (33 or 34) is greater than the number of estimated coefficients (that is, six). Based on the J-statistics and associated p-values for each equation, we fail to reject the null hypothesis that the over-identifying restrictions are valid. Comparing the results of the FEM and GMM when the ROA was set as the dependent variable and the CCI set as the independent variable, similar results were obtained with the exception of the CCI and firm size, which were found to be statistically insignificant under the FEM but to be statistically significant under the GMM. The coefficient of the CCI (that is, 0.004) was however found to be economically insignificant under the GMM whilst that of firm size was found to be economically significant.

Table 23: Corporate Citizenship GMM Results

Dependent Variable	LROA	LROE	LTQ
ROA (1 Lag)	**0.314*** **		
	(0.000)		
ROE (1 Lag)		**-0.148*** **	
		(0.000)	
Tobin's Q (1 Lag)			**0.453*** **
			(0.000)
Corporate Citizenship Index (CCI)	**-0.004*** **	**-0.004**	**-0.007**
	(0.000)	(0.606)	(0.225)
Firm Size	**-0.068*** **	**-0.252*** **	**-0.119*** **
	(0.000)	(0.000)	(0.000)
Sales Growth	**0.039*** **	**0.039*** **	**-0.002**
	(0.000)	(0.000)	**(0.839)**
Asset Tangibility	**-0.821*** **	**-1.644*** **	**0.255*** **
	(0.000)	(0.000)	(0.000)
SA_GDP	**-0.784*** **	**-4.458*** **	**0.824*** **
	(0.000)	(0.000)	(0.000)
J-Statistic	**23.404**	**26.199**	**26.876**
	(0.663)	(0.562)	(0.470)
Instrument Rank	**33**	**34**	**33**

Note: ***Significant at 1% level; **Significant at 5% level; *Significant at 10% level; p-values are reported in parenthesis

Comparing the results of the REM and GMM when ROE was set as the dependent variable and the CCI set as the independent variable, under both specifications the CCI was found to be statistically insignificant. All control variables were found to be statistically insignificant under the REM and statistically and economically significant under the GMM.

Comparing the results of the REM and GMM when Tobin's Q was set as the dependent variable and the CCI as the independent variable, under both specifications the CCI was found to be statistically insignificant. Firm size and SA GDP was found to be statistically and economically significant under both specifications. Sales growth was found to be statistically and economically significant under the REM, but statistically insignificant under the GMM. Asset tangibility was found to be statistically insignificant under the REM but statistically and economically significant under the GMM.

4.5.5 Discussion

The results from the REM/FEM and GMM estimations show that there is no significant relationship between the corporate citizenship index and any of the firm performance variables under any of the specifications. This result is surprising as most theories, for example the agency theory, free cash hypothesis, stewardship theory, stakeholder theory and legitimacy, predict a positive relationship between corporate citizenship and firm performance.

Previous studies in both developed and developing markets found mixed results (Blazovich & Murphy Smith, 2011; Gibbs, 2012; Gregory et al., 2014; Makni et al., 2009; Servaes & Tamayo, 2013). Ntim and Soobaroyen (2013) in their study found that a combination of CSR and other corporate governance practices had a stronger positive effect on firm performance than CSR alone. The few studies conducted in South Africa found a positive relationship between corporate citizenship and firm performance, and are highlighted next. Alessandri et al. (2009) found that when BEE deals were examined as an entire population, they did not yield abnormal shareholder returns. However BEE deals closed at a discount and with large BEE equity stakes were positively related with abnormal returns. Chetty et al. (2015) on the other hand found that in the short-term, there was no significant correlation between performance and CSR; however, in the long-term, they found a positive relationship. The results of these previous studies possibly shed some light as to why no significant relationship was found between the CCI and firm performance in this study. From Ntim and Soobaroyen's study, it appears as though the CCI would need to be examined together with a broader corporate governance index in order to educe a deeper understanding of its link to firm performance. From Alessandri et al.'s study, it seems as though the CCI index may need to be broken down into its constituent (and possibly weighted) parts (or themes) to provide further insights into the CCI-firm performance relationship. Based on Chetty et al.'s findings, it is possible that the reason for not finding any positive CCI-firm performance relationship could be due to firms not listing on the JSE AltX for a long period and as such the results of this study are relevant in the short term.

Another critical point that could possibly explain the unexpected result of this study is that King IV was released in November 2016 and was effective for financial years commencing on or after April 2017. This study collected data from 2002 to 2016. King IV is the first King report that explicitly highlights the importance of corporate citizenship (and corporate governance in general) for SMEs. As a result, prior to King IV, most SMEs could have selectively prioritised certain aspects of corporate governance they deemed

most relevant or important to their business, at the expense of others. Particularly since prior to the publication of King IV, adoption of corporate governance principles was not a stringent requirement upon SMEs.

Using Zadek's (2007) civic-learning tool, corporate citizenship as a societal issue in South Africa could be considered institutionalised. According to Zadek (2007), this means legislation or business norms are established and embedded practices form a normal part of a business excellence model. This is also supported by Visser's (2005) assertion that the main catalysts for the development of corporate citizenship in South Africa are legislation, globalisation, stakeholder pressure and codification. However, most SMEs in South Africa (and within the sample) are mainly in the defensive (businesses deny practices, outcomes, or responsibilities), compliance (businesses adopt a policy-based compliance approach as a cost of doing business) or managerial (businesses embed the societal issue in their core management processes) stages of organisational learning. This could be another explanation for the puzzling result of the study. In the South African context, it is mainly the large JSE mainboard-listed companies that have advanced to the strategic (businesses integrate the societal issue into their core business strategies) and civil (businesses promote broad industry participation in corporate responsibility) stages of organisational learning.

The direction (that is, sign) and relationship between the firm performance and all control variables is exactly the same (with the exception of sales growth when Tobin's Q is set as the performance variable) as that found for the capital structure equations under the GMM estimation. The results are also similar under the FEM/REM for ROA and Tobin's Q, but differ for ROE in terms of the significance of the estimators.

4.6 Conclusion

This chapter presented the results of the summary statistics, correlation matrix, unit root tests, Granger causality tests and regression results (under both the FEM/REM and GMM specifications) examining the relationship between capital structure and firm performance as well as the relationship between corporate citizenship and firm performance. The results presented in this chapter demonstrate that in some instances OLS gives results that are similar to the preferred specification (that is, FEM or REM), whereas in other instances it gave results that were different. This proves that indeed the simple OLS assumption of the same intercepts for each company and year does indeed distort the true relationship between the dependent and independent variables across different companies. With respect to the relationship between capital structure

and firm performance, the results are mixed; and between the CCI and firm performance, no significant relationship was found. It is possible that the gaps in the data sample contributed to surprising results. The GMM method was used to test the robustness of the chosen fixed effects or random effects models and in most cases, they were found to be robust.

The regression output for control variables using the capital structure and corporate citizenship models is similar to those of other African studies (Abor, 2007; Kodongo et al., 2014) which found that size, asset tangibility, sales growth, and GDP growth rate all affect firm performance. However, as the result show, not all control variables affect the performance variables in a similar manner, that is, some control variables impact one performance variable to a larger extent than another.

5 CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The objectives of the study were to firstly, establish whether capital structure impacts the performance of SMEs and secondly, to establish whether corporate citizenship impacts the performance of SMEs. The findings of this study add to the existing empirical body of knowledge on capital structure and corporate citizenship for SMEs within an emerging market context. This chapter summarises the major findings of the study and suggests recommendations to both academics and SMEs.

5.2 Major Findings

The major findings are summarised in Table 24. From Panel A, the results show that pertaining to the relationship between capital structure and firm performance, the results are mixed and dependent on the choice of capital structure variable. This finding highlights the capital structure puzzle at play. From Panel B, the results imply that there is no relationship between corporate citizenship and firm performance.

Table 24: Summary of Results

Panel A: Capital Structure and Firm Performance

	ROA				ROE				Tobin's Q			
	TDE		TDTA		TDE		TDTA		TDE		TDTA	
	FEM	GMM	FEM	GMM	FEM	GMM	FEM	GMM	REM	GMM	REM	GMM
Negative Relationship				√***	√***	√***				√***		
No Significant Relationship	√		√						√			
Positive Relationship		√***					√**	√***			√**	√***

Panel B: Corporate Citizenship and Firm Performance

	ROA		ROE		Tobin's Q	
	CCI		CCI		CCI	
	FEM	GMM	REM	GMM	REM	GMM
Negative Relationship		√***				
No Significant Relationship	√		√	√	√	√
Positive Relationship						

Note: ***Significant at 1% level; **Significant at 5% level; *Significant at 10% level; Encircled GMM results indicate economic insignificance

5.3 Recommendations

5.3.1 Recommendations for Academics

Given the mixed capital structure results, it is recommended that as the number of SMEs in South Africa increase, future studies consider using a larger sample. Since SMEs are not a homogeneous group, a larger sample will enable a split by industry type (for example services, manufacturing, retail, among others) so that capital structure and control variable differences between different industries can be taken into account allowing for a more in-depth analysis. Scholars should also be mindful that both the choice of estimation method and dependent and independent variables have an impact on regression outputs.

Since the results of this study found the surprising result of no significant relationship between corporate citizenship and firm performance it is recommended that future studies examine this relationship further in the following ways. Firstly, the CCI should be examined in conjunction with a broader corporate governance index to elicit a deeper understanding of its link to firm performance. Secondly, the CCI index may need to be broken down into its constituent, and possibly weighted, themes to provide further insights into the CCI-firm performance relationship. Lastly, the CCI-firm performance relationship may need to be examined over a longer period for all firms sampled, for example eight years or longer.

Ownership structure should also be considered as a control variable since the corporate governance issues pertaining to both capital structure choice and corporate citizenship for a firm that is majority owned and managed by founders is different from that majority owned by outside investors and managed by management who are not the SME's founders and who do not have a significant shareholding in the SME.

5.3.2 Recommendations for SMEs

The mixed results for capital structure suggest that there is an opportunity for the board of directors (together with management) to use the capital structure lever of corporate governance to drive the agenda of maximising firm value and by extension, shareholder returns depending on the needs of the firm. For example, the negative relationship found between firm size and ROE, suggests that combining the use of both internal and external financing (in the form of debt) to fund the high growth typically associated with SMEs, provides the opportunity to use leverage to achieve higher returns to shareholders. However, prior to raising external financing, it is important for SMEs to

ensure that they have the appropriate systems and controls in place to efficiently manage growth, otherwise external financing will result in magnified negative returns.

The results of this study should not discourage the adoption of corporate citizenship by SMEs. Particularly since prior to the publication of the King IV report in November 2016, the adoption of corporate governance principles was not a stringent requirement upon SMEs. Thus, it may be necessary to allow SMEs to incorporate corporate citizenship, and corporate governance in general, into their management processes, using for example, Zadek's (2007) civic learning tool.

5.4 Conclusion

The study achieved its research objectives and found evidence to support the existence of the capital structure puzzle; as well as the unexpected result of no significant relationship between corporate citizenship and firm performance. Possible explanations for the findings were explained in detail and suggestions for how the study can be improved were made. As SMEs in South Africa continue to cite access to finance as their biggest stumbling block to growth, and pressure continues to mount upon SMEs to maintain a balance between financial and societal factors; the issues of capital structure choice and corporate citizenship will continue to be a priority for scholars and business leaders for many years to come.

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