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Assessing the impacts of IFRS Adoption on Capital Structure, Corporate and  
Macroeconomic Performances in the Republic of South Africa

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**Submitted according to the requirements for the degree of**  
**Doctor of Philosophy of**  
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## **DECLARATION OF ORIGINALITY**

I, the undersigned, solemnly declare that this doctoral dissertation is the result of my own independent research and was written solely by me using the literature and resources listed in the Reference.

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Michael Yeboah

Ghana, 31. 01.2020

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## LIST OF ABBREVIATIONS

adj.	Adjusted
AF	Analysts Following
CA	Current Assets
CL	Current Liabilities
CoC	Cost of Capital
CoEC	Cost of Equity Capital
CoDC	Cost of Debt Capital
DV	Dependent Variable
EPS	Earnings Per Share
EX RATE	Exchange Rate
EU	European Union
EQR	Equity Returns
FDI	Foreign Direct Investment
FE	Fixed Effect
GAAP	Generally Accepted Accounting Principles
GDPG	Gross Domestic Product Growth
GDP	Gross Domestic Product
Hi	Hypothesis i
IAS	International Accounting Standard
IASC	International Accounting Standards Committee
IASB	International Accounting Standards Board
ICC	Implied Cost of Equity Capital
IFRS	International Financial Reporting Standard
Info Asym (IA)	Information Asymmetry
IR	Interest Rate
IV	Independent Variable
IVs	Independent Variables
JSE	Johannesburg Stock Exchange

J	Firm j
LEV	Leverage
Ln	Natural Logarithm
LEV	Leverage
Log	Natural Logarithm
LQ	Liquidity
MO	Managerial Opportunism
OLS	Ordinary least Squares
PPE	Property, Plant and Equipment
Price	Stock Price
RE	Random Effect
ROA	Return on Assets
ROE	Return on Equity
SAICA	South Africa International Accounting Standards
SD	Standard Deviation
SP	Share Price
ST Debt	Short-Term Debt
t	Period t
TA	Total Assets
TANG	Tangibility
TPA	Third Party Assurance
UNCTAD	United Nation Conference on Trade and Development
USA	United States of America
SD	Standard Deviation

## **ABSTRACT**

This dissertation assessed the impact of the accounting information environment and IFRS adoption influence on capital structure, corporate/ firm, and macroeconomic performances in the Republic of South Africa. The research uses panel data and applies fixed effect, random effect, and Pools regression technique based on the Breusch and Pagan Lagrangian multiplier test, the test of over identifying constraints (Sargan-Hansen statistic), and the F-tests is re-run. Archival data was hand-picked from forty-nine listed agricultural, construction, manufacturing, and mining firms in the Republic of South Africa that have continuously published their yearly financials and other reports from 2001 to 2014 years period. The dissertation employed a panel data statistical analysis and a total of 637 observations I derived from the data set. Cost of debt capital (CoDC), cost of equity capital (CoEC), market price per share (MPPS), and equity returns (EQRS) is the capital structure indicators used. In contrast, the firm performance indicators used are returns on investment capital (ROIC), earnings per share (EPS), operations margin (EBITDA margin), and profitability (EBITDA ROTA).

Moreover, interest rates, economic growth, and the exchange rate form the macroeconomic indicators. The estimation techniques employed are the random and the fixed effects regressions, as well as the pooled Ordinary Least Square (OLS), depending on the one that fits best. Though IFRS adoption showed significant positive and negative impact on the market price per share (MPPS) and equity returns (EQRS), the interaction of accounting information environment with IFRS showed no significant effect on the cost of equity and debt. Neither only IFRS adoption nor its interaction with the accounting information environment showed a significant impact on the profitability (EBITDA ROTA) of the sampled firms. IFRS adoption significantly increases the return on investment capital (ROIC), earnings per share (EPS), and operations margins (EBITDA margin), but, the interaction of IFRS adoption with accounting information environment, except analyst following show, no significant impact on any of the corporate performance indicators. IFRS amid analysts following significantly reduced EPS of the sampled firms. IFRS adoption significantly reduced gross domestic product growth (GDPG) and interest rate, but its interaction with accounting information environment showed no statistically significant impact on them.

## **CHAPTER ONE: CONTEXT AND PURPOSE OF THE DISSERTATION**

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### **1.1 BACKGROUND OF THE STUDY**

In a globalizing and strongly competitive market, credible information is a critical point in the shareholders' decision-making practices and the evaluation of company performance. The application of IFRSs is mandatory for the EU Member States, and in many other countries all over the world; especially in South Africa as well, to be precise, the listed companies must disclose their annual financials following the International Financial Reporting Standards (IFRS).

To become part of the global economy, many countries, both developed and emerging economies, have adopted IFRS, which is developed by the International Accounting Standards Board (IASB). One of the African countries to first adopt IFRS is the Republic of South Africa. The country harmonized its' local Generally Accepted Accounting Principles (GAAP) with the International Accounting Standards (SAICA, 2004). Due to this, its transition to IFRS adoption was not difficult. All JSE public firms were mandated to conform to IFRS for their financial reporting, starting from 1st January 2005. However, Ernst and Young's assessment (2005) of the progress of that as many as 67% of firms listed on the Johannesburg Stock Exchange (JSE) Limited defaulted for not applying IFRS. Some of the challenges that are encountered by IFRS adopters were technical, including "the realization that difficulties associated with IFRS implementation were greater than expected. The high cost of IFRS implementation and these were mainly staff cost like the cost of training, sourcing technically competent staff; poor understanding of the rationale behind IFRS adoption and confusion on company performance information" (United Nations' Conference on Trade and Development (UNCTAD) in 2008 reports; page 120).

Differences in financial reports employed in several different nations have taken a forefront in difficulties stimulated by globalizing the world economy. Due to that, the pursuit of global synchronization of credible accounting standards and adaptation has been extensively recognized as convenient and practical (Samaha and Stapleton, 2008). There are calls for harmonizing with specified standards to form a common accounting standard for all companies listed and unlisted around the globe (IASB, 1998). In line

with the current internationalization influences on capital markets in the European Union (EU) adopting IFRS based on the justifications of their economic significances (Judge et al., 2010).

There is a persistent argument amongst policymakers in emerging economies where incredible financial disclosure may obstruct the capability to attract foreign direct investors, expressly in nonperforming equity markets. According to Scott et al. (1976), the challenges affecting emerging economies accountability due to limited competent accounting professional at all levels; unavailability of financial reporting is inaccurate. Also, late submission, finance, and accounting figures are not reliable for corporate management drives; the absence of legal backing relating to auditing, accounting standards, procedures, and a robust state accountant are missing.

IFRS is a principles-based financial reporting standard that has the potentials to ensure quality accounting information. It gives more disclosure options with required measurements, which decrease the kind of accounting choices and limit managerial myopia in determining accounting numbers. Subsequently, limiting managerial opportunism implies, reducing the external influence and increasing the degree at which firms' financial statements reflect their economic positions (Ashbauge and Pincus, 2001; Ball, Rubiu, and Wu, 2003). Countries adopt IFRS with reasons including having credible financial statements following internationally acceptable standards (Ludolph, 2006), thereby ensuring improvement in capital structure, corporate performance, and macroeconomic performance as a whole. Though, empirical studies from different countries have reported mixed findings on IFRS adoption responds to capital structure indicators, corporate performance proxies, and macroeconomic performance variables, there is no such research in the Republic of South Africa's listed firms.

The influence of IFRS adoption impact on capital structure, corporate, and economic performances depend mainly on the accounting information environment. The accounting information environment involves information asymmetry, analyst following, managerial opportunism, and third-party assurance. Iatridis (2011) defines information asymmetry as a situation whereby some stakeholders obtain more information than others. Thus, information asymmetry results in three fundamental problems in the capital market, namely, adverse selection, moral hazard, and high

monitoring cost, and these affect the capital structure and corporate and economic performance (Merton, 1987; Brown et al., 2004). Professional financial analysts serve as an intermediary between investors and firms (Schipper, 1991), and this intermediary role is inevitable in capital market development. Investors rely on professional financial analysts to learn more about a firm and to make investment portfolio decisions; thus, number analysts following influence inflows within a firm or a country.

Williamson (1985) notes that opportunism is "self-interest seeking with guile," and this behavior acts as a disincentive for IFRS compliance within a firm. According to IFAC (2004), third-party assurance is a process that practitioners express key modalities to extend the degree of confidence that handlers can have reliable evaluation or measurement of a subject matter that is the duty of a party, other than the real users or the practitioner." Assurance is an accounting term used interchangeably with audit, attestation, verification, validation, and review (IFAC, 2004). Organizations are responsible to their stakeholders, and they have a responsibility to demonstrate this accountability (Cumming, 2001; Kaler, 2002). Dando and Swift (2003) note that all organizations want to be accountable, and this desire for accountability serves as an incentive for IFRS compliance. Thus, the accounting information environment acts as an incentive or disincentive for IFRS compliance and realization or otherwise of full benefits of IFRS adoption.

Theoretical and empirical studies demonstrate a universal acceptance that IFRS adoption will influence firms' cost of debt, taking into consideration the interaction of the macroeconomic factors with the accounting information environment. IFRS implementation is to ensure high-quality corporate reporting. It depicts transparent financial information to create equity market liquidity, which will positively increase shareholders' wealth, pursue opportunities to diversify investment, and to cut down the cost of capital for expansion drastically. Moreover, IFRS adoption can interplay with economic factors to reduce ex-ante information risk, re-contracting charges, and ex-post monitoring costs faced by lenders on lending decisions such as to encourage growth (Kim et al., 2011). The benefits of IFRS adoption are universal but pronounce in countries with robust institutional environments where firms have more significant incentives to protect outside investors (Ball, Robin, and, Wu, 2003; Lee, Walker, and Christensen, 2008; Daske, Hail, Leuz, and Verdi, 2013).

Again, IFRS is to enhance corporate reporting credibility and its relation to firms' cost of equity (Madhani 2008). Thus, IFRS adoption promotes the credibility of the financial reporting environment and creates investment opportunities that reduce the costs of equity and improves the return on investment. There has been a growing debate on whether the relationship with IFRS adoption and the cost of equity to be is complementary or a substitute approaches to value creation. Therefore, this study emphasizes on how the cost of equity among listed non - financial companies in the Republic of South Africa has changed after IFRS adoption. There is also an argument on whether corporate managers attribute reduction of firms' cost of equity capital to quality accounting information. There is a significant and knotty problem for corporate managers, capital market players, and information quality standard setters to solve. Few studies show a reduction in firms' cost of debt due to IFRS adoption; this is attributable to less sensitivity to the adverse selection problems. It implies that firms with less information asymmetry would resort to debt, contractual financing, which financing will, in turn, increase the cost of debt capital under IFRS effects on both valuation and contracting roles. The study utilizes panel data regression models to examine how IFRS adoption would affect firms' cost of debt capital and interacting with the accounting information environment, bearing in mind the impact of specific macroeconomic factors (Daske et al., 2008). However, emerging market firms are more sensitive to some variables, which indicate the more significant financial constraints under which they operate, and the peculiar situation is the cost of debt capital and the acceptable financial reporting reliability. Furthermore, emerging market firms seem to be affected by the asset mix, which seems to be in line with their greater dependence on debt capital.

This theory underscores mandatory disclosure for attracting more information about the firm's risk and prospects (Choi, 1973; Firth, 1980; Leventis, 2001). Assuredly, emphasizing on the resource-based theory, (Clarksn, Hanna, Richardson, and Thompson, 2011; Hart, 1995) propose that not all firms have funds towards implementation to benefit from IFRS. Firms with more enormous funds tend to enjoy and achieve economies of scale as funds plowed back should be used against the procurement of debt capital with a lower risk premium. IFRS and corporate performance in emerging economies have become a significant concern receiving critical attention in academic research due to the interest of investors. It is, therefore,

draws public attention to the trajectory of growth mechanisms such as firm expansion, increasing marketplace globalization, assurance of dividend payments, and positive impact on share prices. The intended aim of IFRS as a mechanism is to offer room for a higher demand for corporate performance that is required by investors and other stakeholders in their quest for financial reporting quality (Jonas and Blanchet, 2000).

Prior extant literature links firm performance with the international financial reporting standards adoption that mandates firms listed in South Africa to record their annual financial reports under IFRS starting from 2005. Theory and empirical research support the relation between IFRS adoption and corporate performances. Extant literature asserts that better quality financial information of IFRS has an inherently higher corporate performance that helps to avoid information asymmetry among the equity market participants (Lara, Osma, and Penalva, 2016; Ahmed and Duellmand, 2011). Managers' strategic actions and discretionary behaviour about accounting standards could determine corporate performance (Martinez-Ferrero, 2014). IASB develops IFRS to achieve the expectation of improving financial reporting quality that heightens firm valuation and corporate performance (Ball et al., 2008). However, other contradictory arguments about the effect of IFRS on the firm performance show that IFRS does not provide high-quality financial statements (Ball et al., 2003), as there is the need to recognize the political and institutional environment, which firms operate (Ball, 2006). So there is a growing view of whether the IFRS adoption and corporate performance are complementary or substitute approaches. Therefore, this study's empirical focuses on the extent corporate performance of agricultural, manufacturing, and mining listed firms of the Republic of South Africa after IFRS adoption. Despite, after a decade of IFRS adoption in South Africa, there is scanty information about its impact on corporate performance.

Accounting and Finance researchers have recognized global accounting standards with credible financial disclosure as a significant development on institutional infrastructure and regulations around the world. This study examines whether macroeconomic performance correlates with the IFRS adopted by firms listed on the Johannesburg Stock Exchange (JSE). It is evident that the macroeconomic performance of any economy is essential for economic development and hence poverty reduction. Pricope (2017), therefore, highlights the relevance of exploring the impact of IFRS and FDI



flows as moderated by analysts following, managerial opportunism, and information asymmetry. The study shows that IFRS would create an efficient business environment that requires a comprehensive investigation. Therefore, a coherent, conceptual framework for credible financial disclosure/ reporting (IASB 2010) is relevant. According to Akisik (2014), every country in the world prioritizes the goals of fiscal policy and economic development.

An increase in investor-capital flows across nations has been a prominent strategy that can cause global economic growth. Regardless of the decisions of local investors, there is a consensus among nations to increase Foreign Direct Investment (FDI), which is critical to economic growth and progress (Thampanishvong and Kannika, 2015; Iamsiraroj, 2016). Developed, emerging, and developing economies compete to increase their stake in FDI. From the perspective of dissimilarities between local accounting standard practices (Local GAAP) and IFRS was a serious informational obstacle to increase Foreign Direct Investment (Chen, Ding, and Xu, 2014). Potential investors mostly prefer capital markets environment with trustworthy financial disclosures that enable them to test and decide on which business opportunities to invest in (Gordon, Loeb and Zhu, 2012; Castillo-merino, Menéndez-plans, and Orgaz, 2014). Thus, various economies have devised strategies and policies to alter macroeconomic indicators such as GDP growth, exchange rates, interest rates, and Foreign Direct Investment (FDI) inflows, among others. FDI is determined by capital markets- seeking opportunities that focus on improved and emerging economies with high growth prospects. In the light of firm value, participatory countries in free trade agreements and regional integration trade schemes would increase regional demand and expand financial market size. Reliable and credible reporting quality is likely an added appeal to capital inflow. The mandate to gain international legitimization for foreign investment attraction, calls for improved financial reporting quality. In a globalized economic situation, it is relevant for accounting standard regulators and capital market supervisory bodies to meet trade pressure by making relevant financial reports. It is, therefore, one of the significant policies that various nations, including the Republic of South Africa, have adopted is IFRS, which is promoted by the IASB.

Thus, IFRS brings credibility to financial reporting and hence increases investment flows. Whenever FDI inflow increases, there is massive economic growth, the

exchange rate appreciates, and the government is to resort to less inefficient borrowing. To highlight the benefit of IFRS adoption is to ensure the provision for comparable and credible financial statements by corporate managers. Zaidi and Huerta (2014) and Naranjo, Saavedra, and Verdi (2013) support the adoption of IFRS to facilitate the improvement and sustainability of the global market that may, in turn, stimulates the economic performance of the IFRS adopting nations. IFRS adoption contributes towards ensuring appropriate investment decisions on the reduction of information costs, specifically to foreign investors who observe the relevance of IFRS adoption and enable a cross-country capital inflow (Gordon et al., 2012). However, it is startling to note that the empirical literature skewed towards FDI with little knowledge about the impacts of IFRS on other macroeconomic indicators such as economic growth, exchange rate, and interest rate. This research contributes to financing and accounting literature on IFRS and its macroeconomic consequences to reveal its impact on macroeconomic indicators in South Africa. Thus, it provides lessons for African policymakers on how to devise strategies on marrying IFRS with other macroeconomic indicators without endangering the economy.

Therefore, based on the above benefits of IFRS, in 2005, most countries, including South Africa, made it mandatory for all listed firms on JSE. The Republic of South Africa is one of the earlier countries in Africa to embrace IFRS and coupled with the fact that it is the biggest economy in Africa, so select for this study. However, surprisingly, after IFRS adoption in the Republic of South Africa, confidently, the researcher understands that no such study has empirically assessed how IFRS adoption would affect firms' cost of equity capital. This dissertation thus contributes to knowledge by disclosing the actual impact on IFRS adoption on firms' cost of equity capital in the Republic of South Africa. Hence, it informs stakeholders on appropriate measures to be taken concerning accounting reporting standards in the country. Also, the dissertation provides lessons to be learned by other African nations that have complied with IFRS adoption or are yet to conform to IFRS.

A concurrent study, the author explains that a few works of literature deals with the IFRS adoption, and also the correlation between IFRS and corporate performance, and several studies explore on IFRS and firms cost of debt capital in other continents. However, there is no such study on Africa; as a result: expecting IFRS adoption to affect

companies' cost of capital and the firm value was still open for research, especially in the South Africa context. Because of the lack of discussion addressing the issue in Africa, and in its biggest economy, the Republic of South-Africa, this research aims to fill this research gap. The Research Objective formulated is to assess the effect of IFRS Adoption on firms' cost of equity, cost of debt capital, as well as other macroeconomic indicators aside FDI in Africa, and accounting-based performance indicators.

The dissertation tries to reveal general knowledge areas that will enable regulators, practitioners, and analysts' reaction to the stock market after IFRS adoption, and the significance of such theories to elaborate on the adoption in emerging economies. This study justifies by the motivation on accounting literature of recent times (Ahmed, Chalmers, and Khlif, 2013; Brüggemann, Hitz, and Sellhorn, 2013). Current relevant studies pinpoint the following gaps. Concerning the capital structure relating to management decisions to adopt IFRS, it appears that the impact does not reflect in Africa. Precisely the effect of IFRS adoption on corporate finance, FDI, and equity returns. Also, the gap emphasis on corporate performance factors with IFRS adoption, the research finds mixed results. With regards to the motivations for the macroeconomic indicator study in the Sub Sahara African is limited. Regarding the final aspect of three accounting information environment about IFRS adoption, the researcher finds that this study is the first of its kind.

## **1.2 RESEARCH MOTIVATION**

The following considerations motivate this dissertation. First, the previous studies (see Houqe, Monem, and Zijl, 2016; Gatsios, Da Silva, Ambrozini, Neto, and Lima, 2016; Daske, 2014; Castillo Merino, Menéndez-Plans and Orgaz –Guerrero, 2014; Patro and Gupta, 2014) on IFRS adoption influence on companies cost of equity have produced mixed findings. Given the current controversy, it becomes imperative to find out the effect of IFRS on companies' equity costs.

Second, the equity market is a combination of the equity market and the debt market, with the latter being the broader market. Given this, several studies (Moscariello, Skerratt and Pizzo, 2014; Moscariello, Pizzo, and Skerratt, 2011) study the effect of IFRS on the cost of debt in other continents. However, there is no such study in Africa. Hence, regarding the researcher's knowledge, there was no result to support the proposition that mandatory IFRS reduces the costs of debt capital in Africa. Moreover,

the effect of IFRS adoption on the cost of debt was still open for research, especially in South Africa, where no evidence was available. Third, the cost of capital and firm value influences firm-level, macroeconomic factors, legal, political, and global factors. However, previous studies focused on only two of them, namely, firm-level and macroeconomic factors. For examples, Castillo-Merino et al. (2014) focused on firm-level factors (size, leverage, return on equity and return on asset) and market variables (inflation, GDP, Dow Jones, and beta) while Li, Jahera and Yost (2013) focused on corporate governance and firm-level factors. There is, therefore, a lack of evidence on the relationship between IFRS adoption and the cost of capital (equity and debt capital) and firm value (share price and equity returns) when firm-level, macroeconomic, and legal factors represent independent variables in the same model.

Besides, regarding the impact of IFRS on firm performance, to the best of the author's knowledge, almost all the studies on Africa were done in Nigeria (see Sanyaolu, Iyoha, and Ojeka, 2017; Ironkwe and Oglekwu, 2016; Adeuja, 2015; Umobong, 2015; Abata, 2015; Tanko, 2012) with none done in South Africa. The dissertation, therefore, contributes to knowledge as the researcher explores IFRS relationship with firms' financial performance, applying Returns on Investment Capital (ROIC), EBITDA ROTA (EBITDA TA), EBITDA margin (EBITDA) and Earnings per Share (EPS) in South Africa. All African studies have focused on Nigeria. Also, a significant challenge in literature was establishing how the accounting information quality affects the capital structure (cost of capital, share price, and equity returns), firm and macroeconomic performances were given IFRS adoption. However, previous studies on mandatory IFRS adoption (Castillo-Merino et al., 2014; Patro and Gupta's 2014; Leung, 2013; Mihai et al., 2012; Siqui, 2010; Chen et al., 2012; Lee et al., 2006; Florou and Kosi, 2014) and voluntary IFRS adoption (Hail, Leuz, and Wysocki, 2010; Karamanou and Nishiotis, 2009; Hail, Leuz, and Verdi, 2007; Daske, 2006) focused on direct link to IFRS adoption on cost of equity capital.

There was, therefore, lack of evidence in the literature to support the moderating and mediating role of IFRS adoption in the relationship between accounting information environment (information asymmetry, managerial opportunism, analyst following and third-party assurance) and capital structure (cost of equity and cost of debt), firm value (equity return and share price), firm performance (returns on invested capital, EBITDA to Assets, EBITDA margin, and EPS) and macroeconomic indicators (economic

growth, interest rate, and exchange rate). Last but not least, on the impact of IFRS on macroeconomic indicators, to the best of the researcher's knowledge, all the past studies (see Akpomi, and Nnadi, 2017; Ifeoluwa, Ojeka and Odianonsen, 2016; Sherman and de Klerk, 2015; Emeni, 2014, Lasmin, 2012; Ramanna and Sletten, 2009) focus on the impact of IFRS on FDI. However, this dissertation fills a significant gap in the literature by investigating the impact of IFRS on economic growth (GDPG), interest rate (IR), and exchange rate (EX). Thus, this dissertation is the first to study how IFRS affects GDP growth, interest rate, and exchange rate in an accounting information environment.

### **1.3 RESEARCH OBJECTIVES**

Inspired by this argument, the dissertation considers the moderation effect of the three-accounting environment on capital structure, corporate and economic performances in the Republic of South Africa at the post-adoption of IFRS in 2005. Specifically, the study tests the adoption of IFRS with an expectation on a lower cost of equity capital, lower cost of debt capital, lower information asymmetry, lower managerial opportunism, higher analysts' followings, and to increase corporate and economic performances in the Republic of South Africa. Also, this study tests the effect of the four capital structure proxies; the four corporate performance proxies, and economic performance proxies' moderation on the three-accounting information environment to determine whether the adoption of IFRS matters to shareholders and analysts. Though proxies used are centered on various forms of information environments that this thesis did not consider any hypotheses for that ranking. This thesis aims, also, to determine whether the actual impact of IFRS on the cost of capital determined by economic indicators and the optional component that is driving the accounting information environment. In conclusion, the research discusses the reaction of financial reporting on the interaction between corporate and economic performance, capital structure, and the accounting information environment of firms.

### **1.4 RESEARCH PHILOSOPHY AND METHODOLOGY**

This study uses the positivistic research paradigm. A positivistic research paradigm is suitable for testing the causal relationship between variables. The dissertation covers South African non-financial firms listed on the JSE. The financial firms because they have industry-specific rules and regulations different from other firms in South Africa (Peasnellet al., 2005). It also focuses on the before adoption period (2001-2004), early-

adoption period (2006-2009), late-adoption period (2011-2014) and the 2001-2014 period excluding 2005 which was a more prominent model where an IFRS dummy, as well as the interaction of IFRS with some control variables and their impact on the dependent variables, are used. INET BFA/ IRESS SA is the database; the researcher collects the observations for all variables. In all, there are 480 firm-year observations from 49 firms (Non-financial firms). Databases are a source for data collection to the study variables. After reviewing the relevant literature, the dissertation eliminates listed financial institutions from the model due to different reporting procedures among industries. The financial institution has many regulations to monitor, which do not conform to accounting figures; such standards create incentives on how to ensure efficient earnings management, as well as firms' financial position that is of relevance to regulators and investors (Healy and Wahlen, 1999). Consequently, this research uses mathematical analysis to assess the hypotheses of the study; these are framed and explained in line with those theories recognized from the relevant literature review. Diverse accounting theories like signal and capital need theories are used as explanatory theories in this research to elaborate on the moderation effect of IFRS adoption and the three-information environment impact on capital structure, corporate and macroeconomic performances.

This dissertation utilizes descriptive statistics. Also, panel data methods of pooled ordinary least square regression, random and fixed effects models used, and the best one chosen based on the test of over identifying restrictions (Sargan-Hansen statistics) and the F-test. All standard errors in the dissertation are robust. Moreover, they are hence controlling for possible heteroskedasticity and autocorrelation, if any. It is essential to indicate that the research work has two main limitations. However, these limitations would not affect the outcome of the study. First, the study is limited to one country, South Africa. It might affect the generalization of the outcome of this study. Second, the study is limited to two industries; mining and manufacturing, where the number of firms listed is not as pertains in many as other industries like the financial industry. Hence, this reduced the sample size, which had the potential of affecting the statistical significance of the results. The researcher, however, overcame these limitations by using the various periods outlined above as well as panel data instead of cross-sectional data. STATA software is employed to test the hypotheses of the study.

## **1.5 RESEARCH SIGNIFICANCE/ CONTRIBUTIONS**

The dissertation adds to knowledge in several ways. First, given global attention to IFRS adoption by several countries. Astonishingly, many issues are unknown about the effects of IFRS on the cost of capital, firm value, and firm performance as well as on various macroeconomic indicators in Africa, especially South Africa. The surprise emanates from the fact that IFRS adoption expects to bring several positive effects even though research in other continents has generated mixed findings. This dissertation, therefore, brings to light the actual impact of IFRS in South Africa, and hence informs stakeholders on how policies can help firms and the country reap the full benefits of IFRS. Thus, the research shows how mandatory IFRS implementation has impacted on (i) cost of capital (ii) firm value (iii) firm performance and (iv) macroeconomic performance in the Republic of South Africa.

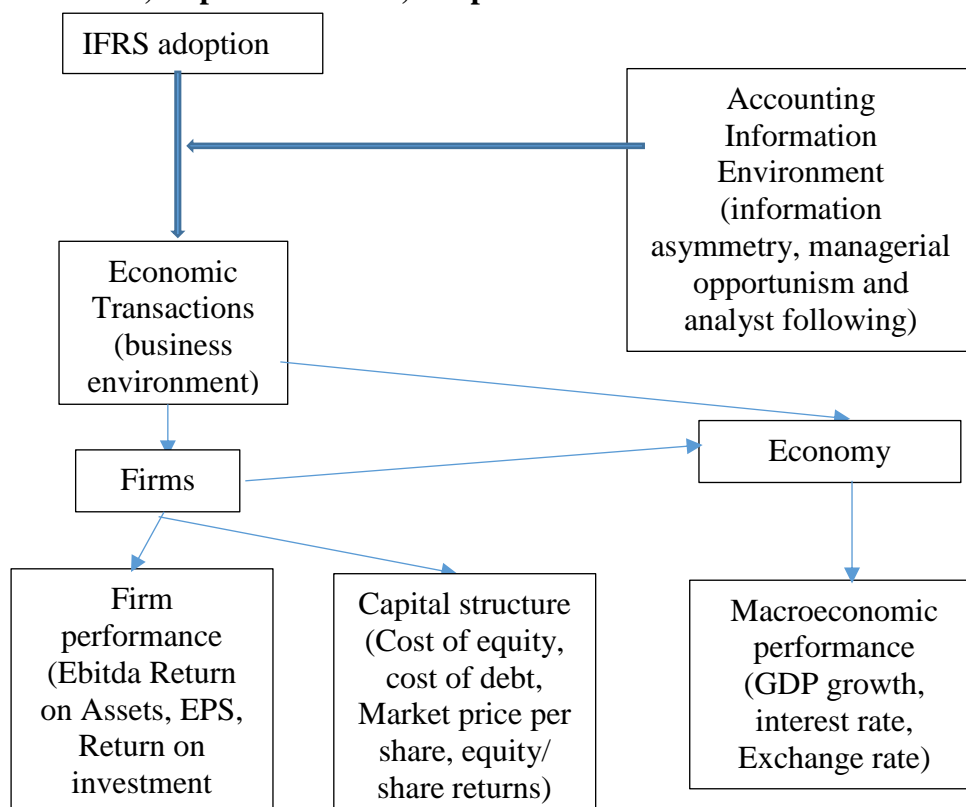
Second, though many kinds of research are piloted on the impact of mandatory IFRS adoption on the capital market, this dissertation is first in its kind to explore the moderation, and mediatory role of IFRS adopted firms. In the relationship between accounting information environment (managerial opportunism, analyst following, and information asymmetry) and capital market aspects in the Republic of South Africa, South Africa mandatorily adopted IFRS in 2004, and all public firms were motivated to conform to IFRS. The primary rationale behind the change to IFRS was to promote quality accounting information, thereby achieving the highest accuracy, transparency, appropriateness, and comparability of annual reports among firms (Ball, 2006; Iatridis and Dimitras, 2013). Quality accounting information reduces information asymmetry and managerial opportunism but increases analysts following their firms with the resultant of a lower cost of capital (equity and debt) and higher shareholders value (equity returns and share price).

Third, previous IFRS impact studies, both voluntary and mandatory studies controlled for either firm-level factors, market-specific factors and, or macroeconomic factors that can affect the capital market aspects are equity cost, debt cost, equity returns, and share price. None controlled for all fundamental factors (firm-level factors, macroeconomic factors, political factors, hereditary factors, and global factors) that can influence the capital market aspects. Therefore, investigating the effect of IFRS adoption on capital market aspects by controlling for significant variables such as; firm-level factors,

macroeconomic factors, political factors, hereditary factors, and global factors helps to appreciate the role of IFRS in a broader perspective. Fourth, previous studies (Castillo-Merino et al., 2014; Patro and Gupta, 2016; Yeboah and Yeboah, 2015; Ames, 2013; Chen et al., 2013) focus on a shorter transition period (not more than three years) in IFRS adoption. For instance, Castillo-Merino et al, 2014 report on the before-adoption (1999-2004) and post-adoption (2005-2009) periods of IFRS in Spain. These studies tend to produce interim results since the IFRS adoption incentive or enthusiasm diminishes with time. This research is the first of its kind to provide for more extended transition periods (early post-adoption 2006-2009 and late post-adoption 2011- 2014) in IFRS mandatory adoption impact on capital market aspects. Thus, the transition effect of mandatory IFRS adoption has no place in the findings regarding this dissertation, making the outcome; the "real effect of mandatory IFRS adoption." Finally, the dissertation would interest other African countries, especially those yet to adopt IFRS, participants in the financial reporting process, stock market regulators, and academicians.

## 1.6 CONCEPTUAL FRAMEWORK

**Figure 1.1: Relationships between IFRS Adoption, Accounting Information Environment, Capital Structure, Corporate and Macroeconomic Performances**



Source: Adapted from La Rocca (2007)



The advocates of IFRS noted that nations could look for lower information and auditing cost from capital market players (Barth, 2007). Beneish and Yohn (2008) show that investors incur three types of information costs and are most likely to affect IFRS adoption by countries. These include information processing cost, financial reporting quality, and volatility about future cash flows distribution. If IFRS is successful at reducing some of these costs, then the debt should be reduced (Beneish and Yohn, 2008).

IFRS adoption has immense benefits such as improvement in quality and transparency of accounting information and harmonization of financial statements within and across nations. These and other perceived benefits of IFRS affect economic transactions or business environment. The effect on the business environment (economic transaction), in turn, affects the firms which operate within the environment and the economy as a whole. The performance of the firms also affects the performance of the economy. However, the effectiveness of the business environment depends on the extent of asymmetric information, analyst following, and managerial opportunism [all together called Accounting Information Environment]. Therefore, IFRS impact on firms and the economy depends mainly on the extent of the accounting information environment.

## **1.7 DISSERTATION STRUCTURE**

The rest of the dissertation design as follows:

### **Chapter Two**

Chapter Two emphasizes on review of literature related to IFRS adoption with an emphasis on South Africa, the cost of capital (equity and debt), shareholders' value (stock returns and share price). It specifically looks at IFRS development, IFRS adoption in South Africa (history of IFRS in South Africa, the legal evolution of South African IFRS and evolution of the JSE), and IFRS principles. The next part of the review is devoted to the cost of capital and shareholders' value with an emphasis on mandatory IFRS adoption. It further looks at IFRS adoption and managerial opportunism, third-party assurance, analyst following, and information asymmetry. The last section of the review concentrates on the IFRS adoption, cost of capital, and company value.

### **Chapter Three**

Chapter Three represents the methodology of the thesis. It covers the strategy, population, sample, and sampling techniques used in the study, data collection, model specifications, and specific justifications. Methods of analysis reviewed include a test for panel data problems, correlation analysis, descriptive statistics, mainly mean and standard deviations, and line graphs to show patterns and multivariate regression models (pooled regression and fixed and random effect regression).

### **Chapter Four**

Chapter Four is the Data Presentation and Discussion. It is sub-divided into four, namely: as mandatory IFRS compliance influences firms' cost of capital, firm performance, and economic indicators among listed firms in South Africa.

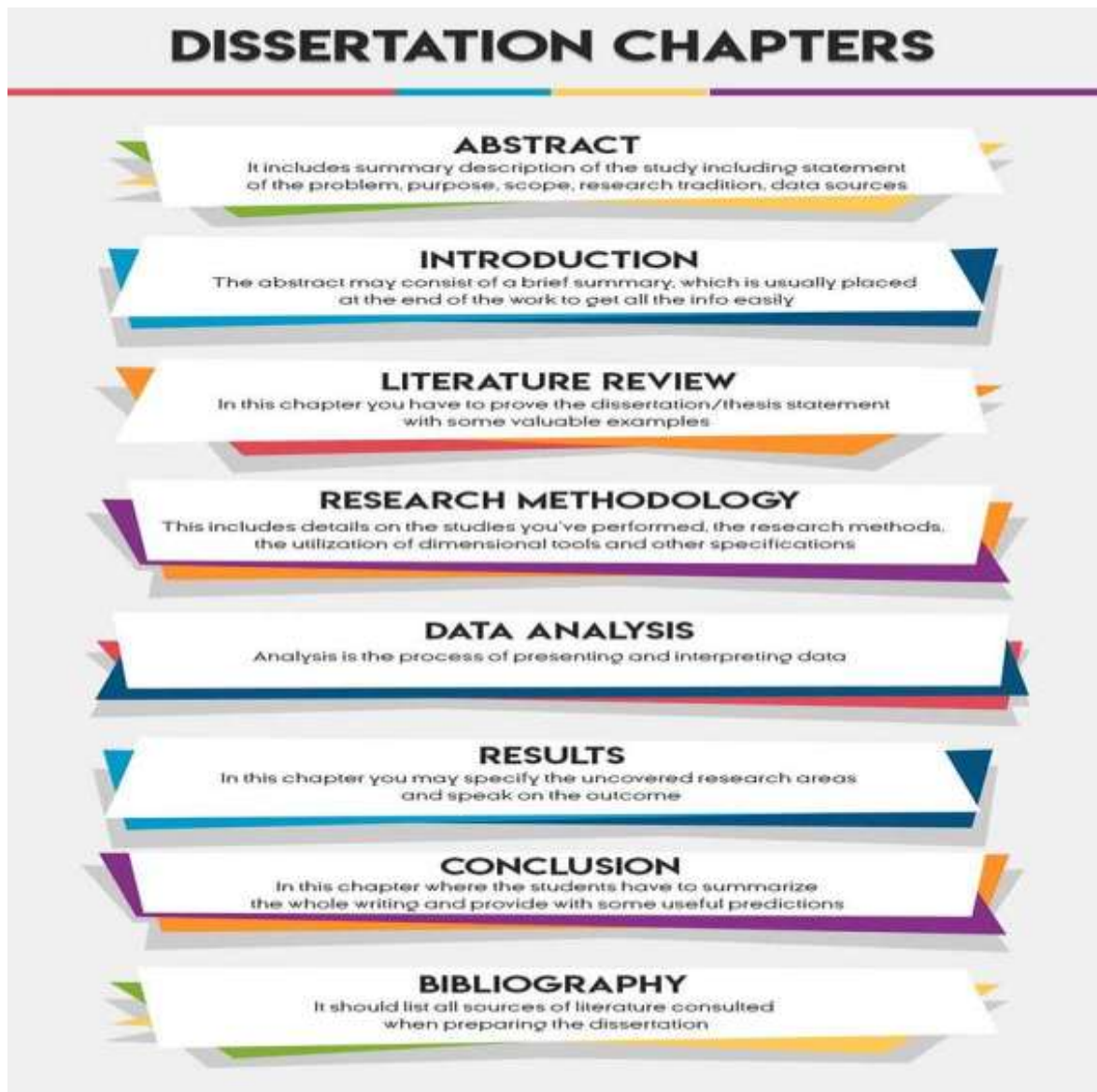
### **Chapter Five**

Chapter Five has Conclusions and Recommendations. It highlights the research findings and under each sub-section in chapter four, concludes each aspect of the dissertation, makes recommendations after that, states limitations, and shows possible research gaps for future researchers.

## **1.8 SUMMARY**

This dissertation aims at exploring the mediatory role of IFRS adoption with the accounting information environment (managerial opportunism, third-party assurance, analyst following, and information asymmetry) and capital structure and firm value in South Africa. This dissertation covered 49 JSE listed manufacturing and mining firms over the period 2001-2004 (pre-adoption), 2006-2009 (early post-adoption) periods, 2011- 2014 (late post-adoption) and 2001- 2014 excluding 2005 as a (pooled big model). The chapter provided topic development and researcher's motivation by general background, motivation, aim, philosophy, method, and contributions. Chapter one concludes with a structure of the thesis. Chapter Two reviews relevant literature on the thematic areas. Figure 1.1 illustrates that IFRS adoption shows a significant influence on the interaction between accounting information environment (information asymmetry, managerial opportunism, third-party assurance, and analysts following). And capital market aspects-cost of capital (equity and debt cost) and shareholder value (share price and stock returns), Firm Performance, and Economic Indicators.

Figure. 2 Dissertation Chapters



Source: Own Construct- Summary of Thesis

## **CHAPTER TWO: THEORETICAL AND EMPIRICAL LITERATURE**

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### **2.1 INTRODUCTION**

This chapter covers the conceptual, theory, and empirical literature that relate to the study. Specifically, it covers the conceptual and theoretical bases underpinning the dissertation including Capital Need, Positive Accounting, Agency, Efficient Market Theory, Signaling Theory, Information Asymmetry, Analysts Following, Managerial Opportunism, Third Party Assurance and Empirical Study on IFRS and Cost of Capital, Cost of Debt, Economic Indicators and Corporate Financial Performance. The second section covers empirical literature related to the study. Also, it covers the gaps identified after the empirical review that was filled by the study.

### **2.2 BRIEF HISTORY BEFORE AND POST IFRS ADOPTION**

Before the IFRS adoption era, all global and multinational firms were mandated to present a separate financial report for every nation they operated, following a country's Local GAAP established in conformity with IASC, which was in operation from 1973 to 2001. Accordingly, a series of accounting standards (AS) was released; it numbered from IAS 1- 41 in December 2001. Early 2002, the European Union (EU) made legislation that required public firms among the European Union member states to apply IFRS in their consolidated annual reports commencing from 2005. Over 8000 firms from 30 countries complied. Due to globalization, many other countries outside the EU have also been voluntarily adopting IFRS. It has become mandatory in Africa because IFRS is becoming the set of a globally accepted accounting standard that meets the needs of the world, and it is broadly connected to global equity markets. The adoption of IFRS relates to transparency, high quality, and comparable information that would build the confidence of investors, creditors, financial analysts, and other users of the financial statement. It is to enable the comparability of financial information prepared by entities located across the globe. To introduce a common set of accounting standards that would facilitate investment decisions across borders to intensify equity market efficiency and also cut down the costs of raising capital.

During the last decade, many countries in the EU have moved to conform to IFRS. This switch simplifies transactions and dealings with companies in other countries who also

report under IFRS. It, therefore, gives stockholders and related parties a collective basis for comparability and investment choices. A typical financial reporting standard may enable companies to decide on business issues within a global marketplace. Numerous listed companies are expanding and marking significant acquisitions worldwide for which a large amount of capital is required. Many stock exchanges need credible financial reports prepared under IFRS. Therefore, IFRS consist of generally accepted accounting principles (local GAAP), introduced by IASB, that firms comply with preparing financial reports (which aid in understanding the financial performance as well as directors' stewardship of the company's resources). IFRS is adopted or followed by over a hundred countries. Since 2005, all listed businesses in the EU are to adopt IFRS. It is due to the increasing globalization of companies and financial markets, using the same accounting figures across nations is observed as increasing the comparability of financial statements. Further, it helps in decreasing the cost associated with the preparation of consolidated financial reports of corporations with branches worldwide. (Financial Times, n.d).

To the IFRS adoption impact on capital structure, corporate and economic performances depend mainly on the accounting information environment. The accounting information environment involves information asymmetry, analyst following, managerial opportunism, and third-party assurance. Iatridis (2011) defines information asymmetry as a situation whereby some stakeholders obtain more information than others. Thus, information asymmetry results in three fundamental problems in the capital market, namely: adverse selection, moral hazard, and high monitoring cost; and these affect the capital structure and corporate and economic performance (Merton, 1987; Brown et al., 2004). Professional financial analysts serve as an intermediary between investors and firms (Schipper, 1991), and this intermediary role is inevitable in capital market development. Investors depend on professional analysts to learn more about a firm and to make investment portfolio decisions; thus, number analysts following influence inflows within a firm or a country.

Williamson (1985) notes that opportunism is "self-interest seeking with guile," and this behavior acts as a disincentive for IFRS compliance within a firm. According to IFAC (2004), third-party assurance is a process that practitioners express key modalities to heighten the confidence level that industry players can appreciate the evaluation or

measurement of a subject matter that is the duty of a party, other than the real users or the practitioner." Assurance is an accounting term used interchangeably with audit, attestation, verification, validation, and review (IFAC, 2004). Organizations are responsible to their stakeholders, and they have a responsibility to demonstrate this accountability (Cumming, 2001; Kaler, 2002). Dando and Swift (2003) note that all organizations want to be accountable, and this desire for accountability serves as an incentive for IFRS compliance. Thus, the accounting information environment acts as an incentive or disincentive for IFRS compliance and realization or otherwise of full benefits of IFRS adoption.

IFRS is assumed to lower risk and thus cut back on required return. This process will lead to an increase in share prices. Based on the efficient market theorem and the no-arbitrage assumption, there will be a one-time jump of firms' stock price, and the required expected return on the share to match up. IFRS adoption should benefit firms by cutting down the cost of raising funds and also eliminating the importance of preparing two sets of financial reports. It also reduces accountants' fees, abolishes risk premium, and enables access to all capital markets because IFRS is globally recognized. IFRS would help the adopting economy, investors, industry players, including the financial reporting authorities. In particular, it benefits the economy by increasing the growth of its international business transactions. It also facilitates the maintenance of orderly and efficient capital markets. It enhances capital inflow and thereby causes economic growth among nations. Finally, it promotes international investment and thereby leads to massive foreign capital flows to the state.

### **2.3 CONCEPTUAL AND THEORETICAL**

This section highlights theoretical views and policy frameworks that rightfully enjoin listed South African Stock Exchange mining and manufacturing companies to report following IFRS, which is crucial and underpin the dissertation. The researcher review theories dealing with IFRS adoption in emerging economies regarding the substantial cost of capital and further explores company-specific determinants. Also, to assess the financial performance that relates to the adoption of IFRS in the Republic of South Africa.

### **2.3.1 IFRS**

Keane (1993) reports about conditions under which markets can be information efficient with relatively stable regulations that guide accountants and auditors as a clear and distinct information requirement by equity market players, and rapid and broad information disclosure by firms. IFRS adoption relates to two theories, namely, the bonding theory of adoption, which explains the increasing rate for various firms associated with the financial markets (Coffee, 2002). Moreover, signaling theory that stipulates the firm's conformity to quality financial reporting brings signals after IFRS adoption (Tarca, 2002).

### **2.3.2 Signaling theory**

Spence (1973) introduces the signaling theory to clarify the reactions in the labour markets (Watts and Zimmerman, 1986). Conversely, signaling theory is a conventional system applied in any financial market that has asymmetry information challenges (Morris, 1987). This theory demonstrates that way asymmetry information as managed by industry players with more signaling information than others. Using signaling theory for accounting reporting proposes that corporate directors be able to employ financial reports to signal their intentions as well as their expectations. Firms adopting IFRS send signals to the equity market and industry players that companies are willing to disclose the relevant information based on more preventive accounting principles.

Signaling theory recommends factors that can explain IFRS adoption. Specifically, profitability and liquidity generally hypothesized to investigate the relationship between IFRS adoption and information asymmetry, managerial myopia in the capital market (Al-Akra et al., 2010). Following the argument signaling theory and agency cost situation. It shows that there is a substantial similarity among them. Accordingly, Morris (1987) researched on whether the two theories are equivalent, constant, or competitive, by exploring the relevance and available modalities for both. The study by Morris proposes that as the satisfactory conditions for signaling theory is related to agency problems. Nonetheless, an essential condition for informational asymmetry, managerial myopia, signaling theory, is not familiar with agency theory (though it implies).

Morris's findings suggest that the consistency between signaling and agency theories yield accounting choices predictions. Signaling theory seeks to identify problems that relate to information asymmetry in capital markets and elaborates on how those problems alarm investors (Morris, 1987). Moreover, as expressed by Akerlof (1970), the researcher asserts that, with regards to uninformed buyers, various stocks are measured as an average price on buyers' observations of the superiority of the stocks but not on their real value. The conversion to IFRS adoption to promote credible reporting standards for Greek companies with the prospect of 'screen' firms from those supposed to have an incredible report. Theoretically, IFRS expects to lessen the cost of capital of adopting companies. Following the theory, earlier empirical research shows that financial statements are essential for the justification of agency costs in a debt-financing situation.

### **2.3.3 Capital Needs Theory**

Capital needs theory details the general motivation for firms to present credible reports to raise capital. Managers' lad for the new capital at a lower cost, which relates to decreasing information asymmetry (Choi, 1973; Firth, 1980; Cooke, 1993), may perceive higher levels of financial reporting. Capital needs theory. The theory posits about firms yearning to raise cheaper equity. IFRS adoption with credible disclosure will ease new capital inflow (Craven and Marston, 1999). Competing in equity markets (Leventis, 2001), corporate managers have the mandate to provide credible disclosures to attract more foreign direct investment. Information prerequisites for IFRS mandated disclosures would provide investors with credible information relating to a company's risk and opportunities for the current and potential investor.

Ashbaugh and Pincus (2001) maintain that the adoption of IFRS to form part of a rigorous effort by corporate managers to comply to fulfill the expected information that will enable businesses to raise capital. This theory supplements the anticipation of better conformity by listed firms in securities issues than private firms. Admittedly, firms listed in different markets compete for investors. Precisely, foreign listing firms have frequently hypothesized to IFRS adoption impact and the degree of competition for capital (e.g., Samaha and Stapleton, 2009; Al-Akra, Eddie, and Ali, 2010).



#### **2.3.4 Positive Accounting Theory**

Positive accounting theory's primary function is to maintain credible financial reports for efficient resource allocation (Bushman and Smith, 2001). IFRS adoption discloses transparent and reliable disclosure of financial reports (Christensen 2012; Lourenço and Branco 2015). The quality of accounting numbers may reduce agency cost and information asymmetry, managerial myopia, estimation risk, and cost of capital.

#### **2.3.5 Agency theory**

Agency theory describes the existence of conflicts such as between managers and shareholders, stockholders and creditors, and bondholders and stockholders. Jensen and Meckling (1976) and Myers (1977) note that the interests of stockholders differ from those of creditors due to the existence of the outstanding debt, while Black (1976) notes that the dividend payout policy of a firm creates conflicts between bondholders and stockholders. These and many more likely conflicts necessitate external assurance. KPMG (2014) notes that third-party assurance increases credibility and investors' reputations risk, decrease reputations risk, and cost of capital.

#### **2.3.6 Efficient Market Theory**

The efficient market theory points further to reliable corporate disclosure and disseminated by market participants. According to Fama (1970), the Efficiency Market Hypothesis categorizes into three as weak, semi-strong, and reliable.

**Weak efficiency market hypothesis;** this assumes that both previous and current information does not affect future stock prices; hence, there is no relationship between changes in future security price and past or current prices and volume data.

**Semi-stronger efficiency market hypothesis;** this assumes that new public information quickly affects current stock prices. The security prices take into consideration all market and non-market information such that excess returns are not associated with vital information.

**Strong efficiency market hypothesis;** this assumes that current market prices take into consideration all information, both public and private; hence there is complete information within the market such that excess returns cannot be consistent.

The efficiency market hypothesis takes its arguments from the following;

**Investor rationality:** assumes that shareholders are rational in the sense that they correctly update their opinions on the availability of new information.

**Arbitrage:** assumes that investment decisions satisfy the arbitrage condition, and the calculus of the subjective expected utility theory guides trade decisions.

**Collective rationality:** this assumes that the market corrects itself such that random errors of investors canceled out in the market. Therefore, an investor's irrational behavior does not affect prices.

### **2.3.7 Theories underpinning IFRS adoption in emerging economies**

The macroeconomic view on IFRS adoption in emerging economies dwells on two fundamental theories, which are isomorphism (DiMaggio and Powell, 1991) and (Katz and Shapiro, 1985) economic theory of networks.

The evolution of three forms of isomorphism use by DiMaggio and Powell (1991) explains the adoption of IFRS in a single country. First is about coercive isomorphism that relates to either existence or non-existence of systems that can instigate the government to align or change their local GAAP to IFRS. As Judge et al. (2010) note in their highly-cited study, the International Monetary Fund (IMF) requires developing and emerging economies to make financial reporting reforms as a definite link to IFRS adoption before providing them with foreign aid. Second, the derivative isomorphism relates to the imitation of countries with the consideration that more appropriate and effective. Qualified accountants may apply specific force towards IFRS adoption (Hassan, 2008). Thirdly, normative isomorphism form is concerned with a country's educational level (DiMaggio and Powell, 1991). According to Hassan (2008), the extent of a country's literacy rate may have an impact on accounting practices and therefore makes IFRS adoption possible.

### **The Economic Theory of Networks**

This theory view is that developing and emerging economies expect to adopt IFRS mostly when they trade with countries that have adopted IFRS (Ramanna and Sletten, 2009). Before adoption, a single country needs to examine the intrinsic value of

products and the product's network value before making a decision (Katz and Shapiro, 1985). It implies that adopting IFRS will relate to a credible financial report. Countries that have strong economic relations with other states might have adopted IFRS; harmonizing IFRS in emerging economies setups will ease local biases that usually be confronted by foreign financiers as a result of a simplified multinational activity (Ramanna and Sletten, 2009). Ramanna and Sletten, (2009), using an event to show that intrinsic value of IFRS adoption as generally called the "autarky value of IFRS." In contrast, the product value network is the same as the "synchronization value of IFRS."

In contributing to the theories from the merits and demerit, a single nation/ country has to examine both autarky and synchronization values of IFRS to see if it exceeds the local GAAP value before adoption. At the heart of this theory, further, as Ramanna and Sletten (2009) note that "the autarky value of IFRS is immediate value to the adopting country by using the IASB-developed standards." It brings political and economic benefits to a country. A political value of with regards to the domestic GAAP signifies the capability and the legality to regulate the accounting policies. The economic net value represents the capability of an economy to stimulate efficient resource allocation strategies in its nation positioned to adopt new standards. Hence, IFRS is value relevance for developing and emerging economies when both the autarky values (political and net economic values of IFRS and its synchronization value to surpass the benefits of the domestic GAAP.

### **2.3.8 IFRS Adoption and Accounting Information Environment**

The accounting information environment is information asymmetry, analyst following, managerial opportunism, and third-party assurance.

#### **2.3.8.1 Information Asymmetry**

Iatridis (2011) defines information asymmetry as a situation whereby some stakeholders obtain more information than others. Thus, information asymmetry results in three fundamental problems in the capital market, namely, adverse selection, moral hazard, and high monitoring cost. Theoretically, studies have focused on three aspects through which quality accounting information reduces information asymmetry. These include changing the behaviour of uninformed investors, reducing the incentive to search for private information, and reducing information risk. Higher accounting

information quality reduces the processing cost of public disclosure, thereby increasing the number of uninformed investors that trade in the firm's stock. Therefore, an increase in a firm's accounting information quality decreases the number of informed investors, which reduces information asymmetry (Merton, 1987; Brown et al., 2004). A reliable reported to the public influences the cost of private information that the investor seeks. Therefore, credible accounting information quality will lower the cost of private information and vice versa (Verrecchia, 1982; Diamond, 1985). In effect, higher accounting information credibility minimizes information asymmetry by minimizing the burden to search for private information and as well as controlling information risk to investors (Diamond, 1985; Diamond and Verrecchia, 1991; Easley and O'hara, 2004).

#### **2.3.8.2 Analyst Following**

Professional financial analysts serve as an intermediary between investors and firms (Schipper, 1991), and this intermediary role is inevitable in capital market development. Investors rely on professional analysts to learn more about firms and to make investment portfolio decisions. Professional analysts follow firms with a lesser cost of obtaining information than the benefits of brokerage commission (Bhushan, 1989). Analyst following is a proxy for the credibility of a company's information environment (Lys and Soo 1995; Lang et al., 2004; Brown and Higgins 2002; 2005).

#### **2.3.8.3 Managerial Opportunism**

Williamson (1985) explains that opportunism is "self-interest seeking with guile." Managerial opportunism is an inevitable consequence of costly information. In a world of no transaction cost, including the cost of determining behaviour and actions of stewards (managers), there would be no opportunism. IFRS enhances transparency and timely disclosure of accounting information and increases the accessibility of firms' data by users, including investors, financial analysts, credit rating agencies, regulators, and stakeholders (Kim et al., 2013). Thus, with IFRS, stakeholders can monitor and effectively assess the behaviour of the manager, thereby reducing opportunism (Kim et al., 2013). The purpose of profit-making businesses is to sustain and maximize shareholders' wealth. Firms provide wealth through the distribution of profits the firm generates by increasing value through active management and profit retention. Business

owners are limited to maximizing their wealth due to Managerial opportunism interferes.

Equity owners typically do not determine whether managers they hire will act in their interest. As a result, to avoid the risk of managerial opportunism or reduce it, owners must establish corporate governance systems and control procedures and policies. There is a need for shareholders to evaluate management performance periodically. In a corporate entity, the directors have a fiduciary function to control, monitor and evaluate management decisions. In seasons that managers receive higher compensation linked with higher productivity, they most often call for an increase in firm size and also expands production and service lines instead of profitability. Big firms generate more revenue and more profits in absolute terms but not in percentage terms. Managers may sometimes decide on developing certain products or firm diversification. Divergence of investment, therefore, decreases the risk of job loss for managers and also cut return on investment equity for the shareholders.

#### **2.3.8.4 Third-Party Assurance**

IFAC (2004) defined third-party assurance as a process that practitioners express key modalities to maintain a high degree of confidence that users can have the evaluation or measurement of a subject matter that is the duty of a party, other than the real users or the practitioner." Assurance is an accounting term used interchangeably with audit, attestation, verification, validation, and review (IFAC, 2004). Organizations are responsible to their stakeholders, and they have a responsibility to demonstrate this accountability (Cumming, 2001; Kaler, 2002). Dando and Swift (2003) note that all organizations want to be accountable. Independent external assurance is integral to sustainable accountability to shareholders.

## **2.4 IFRS AND CAPITAL STRUCTURE**

### **2.4.1 IFRS AND COST OF EQUITY CAPITAL**

IASB formulates IFRS, which has worldwide approval for the regulation of accounting activities. It promotes accounting rules harmonization. There is just an extensive relationship between IFRS adoption and the quality of financial accounting information of listed South African listed companies and reduction in the cost of equity and improved investment returns (Tweedie 2006; Barth et al. 2008). Large numbers of

accounting quality indicators and IFRS adoption by European countries have enhanced reporting credibility (Chen et al., 2010; Barth et al., 2008). Paramount to portfolio decisions is concerned with an entity's cost of equity. From defining the target rate for investment plans to influencing corporate capital structure decisions, the cost of equity capital affects the firm's operations and its subsequent cost-effectiveness. Given this importance, it is not surprising that a wide range of policy recommendations is to support business managers to reduce this cost (Easley and O'hara, 2004).

Firms' cost of equity expects to decrease in dual ways. First, the international comparability of financial reports ought to be improved by IFRS that has a general accounting 'language'. It entices foreign investors and therefore reduces the barriers to cross-border equity inflows. Second, the corporate reports must conform to better-quality accounting standards that would replace the local GAAP, which is of lower quality. It enables outside investors to monitor investment returns with information asymmetry solved. Credible accounting standards must reduce the costs of equity capital (Castillo-Merino et al., 2014). Levitt (1998) opines that high-quality standards would lower the cost of capital. According to Daske et al. (2008), the benefits of capital markets are when firms present credible annual reports. More specifically, comparability benefits among investors are a question of substantial interest and significance to the financial reporting environment. However, the interaction of accounting information quality and the cost of equity is not well addressed and has proved difficult to conclude. It is a fact that most of the benefits derived from IFRS adoption in Europe. It is not appropriate to accept that the findings with European countries can be generalized in African situations.

#### **2.4.2 IFRS AND COST OF DEBT CAPITAL**

Debt capital providers face asymmetric information challenges in ascertaining the capability of companies to pay back the debt that mostly depends on the value of assets and subsequent cash flow potentials. Theory suggests that accounting information quality with credible disclosures can reduce asymmetry information and estimation risk (Dye 1990; Verrecchia 2001; Easley and O'Hara 2004; Lambert, Leuz, and Verrecchia 2007). Consistent with theory, earlier empirical studies have concluded that the role of financial statements is to mitigate agency costs in a debt-financing context. IFRS adoption speculates to enable firms to raise external funds with a lower cost of debt by

reducing information asymmetry and associated selection costs (Naranjo et al., 2014). The cost of debt is the rate of interest paid on the current loan. According to Lin et al. (2011), the cost of debt is the proportion of the financial cost to total debt.

Credible financial statements are to reduce or prevent the distortion of information characterized by the contracting debt process (Holthausen, 1983). Accounting based contracts can reduce moral hazard and adverse selection; improve terms of debt contracts, thereby ensuring the efficient allocation of resources (Jensen and Meckling, 1976; Watts, 1986, 2003). Therefore, IFRS adoption is expected to play a vital role in debt financing. The reasons being that IFRS prevents earnings management, thereby improving earnings quality (Schipper, 2003; Gassen and Sellhorn, 2006), and information disclosure (Leuz, 2000; Ashbaugh, 2001; Daske, 2006). Theoretically, IFRS expects to reduce the cost of debt capital of adopting firms. Therefore, IFRS adopters expect gains through a relatively lower loan interest.

## **2.5 IFRS AND FIRM PERFORMANCE**

Accounting and Finance literature on firm performance focuses on achieving financial gains, generally stated as Net profits, Return on Investment Capital (ROIC), or shareholder/ Equity returns (Barney, and Ketchen, 2011). Recent researchers posit that profits are the main priority of stakeholders (i.e., Berle and Means, 1932; Rappaport, 1986; Jensen, 2001). The facts remain that maximum returns to shareholders are the responsibility of company managers. The resource-based theory has become the most popular explanation for specific firm performance. A study by Agrawal (2008) suggested that IFRS is a principle-based standard, whereas Local GAAP is rule-based. Research evidence to date recognizes the use of judgment to choose the best accounting policies that necessitate valuations and future predictions. These and other factors would have a significant effect on the financial performance of companies and their reported earnings. According to Taiwo and Adejare (2015), IFRS will have a positive impact on firms' operations with the anticipated quality of accounting records. Its application will enhance business efficiency; facilitate resource allocation, and performance-based strategic planning in companies.

Theoretically, IFRS expects to improve the performance of adopting firms. There is an extensive relationship between the quality of IFRS adoption on financial accounting

information of listed South African manufacturing and mining companies and improved corporate performance, concerning return on invested capital (ROIC), Ebitda Return on Asset (Ebitda Return on TA) and EBITDA margin (EM) (Barney and Ketchen, 2011). Chen et al. used large numbers of accounting quality indicators associated with IFRS adoption by European countries (2010); and Barth et al. (2008). Findings by Lantto and Sahlstrom (2009) on IFRS adoption reveal positive changes in profitability ratios arising from the increase in the income statement. It re-asserts the fact that the effect of the quality of financial reporting would positively influence firm performance, as IFRS focuses more on capital-market than on local standards (Ding et al., 2007).

IFRS perceives to be the world's best collection of accounting practices and, therefore, mitigates moral hazard problems, which assures improvement in the efficiency of investments in corporate social responsibility (CSR) and influences the future economic performance of firms (McDemontt, 2011; Bushman and Smith, 2001). Kumar (2015) investigates how IFRS adoption affects financial decisions in a profit ratio.

## **2.6 IFRS AND MACROECONOMIC PERFORMANCE IN THE REPUBLIC OF SOUTH AFRICA**

IFRS enhances; comparability, information quality, quality accounting numbers, market liquidity, FDI, and efficient capital market (Ball 2016; Gordon, Loeb and Zhu 2012). It entices equity from foreign capital markets and therefore overcomes the barriers to cross-border equity flows. Second, corporate reporting must improve when better-quality accounting standards are adopted instead of the local GAAP that is of lower quality. Thus, it enables outside investors to monitor investment returns when information asymmetry decreases. The interaction between IFRS adoption and macroeconomic variables has centered on influencing FDI inflow. However, if IFRS expects to enhance FDI inflow in a country, increase economic growth, stabilize the exchange rate, and also reduce the government's indebtedness. Therefore, increasing investments, points to improve the productive capacity of the South African economy (economic growth), the demand for the local currency (increasing the value of the local currency) increases FDI, and also reduces the rate at which government borrows. This section reviewed theories that relate to IFRS, cost of debt, accounting information



quality and analyst following, accounting information quality and managerial opportunism, accounting information, and information asymmetry.

## **2.7 THE IMPACT OF IFRS ON THE ECONOMIC CONSEQUENCES**

Jang et al. (2016) conduct a study on the consequences of IFRS adoption in Korea. The study reviews eighteen empirical papers on the economic consequences of IFRS adoption in the country. They group the economic consequences of IFRS into six as follows, (i) value relevance, (ii) earnings quality, (iii) comparability of financial statements, (iv) information asymmetry, (v) analysts' behaviour, and (vi) cost of capital and firm value. The study concludes that, generally, IFRS adoption has led to positive economic consequences. Abubakar, Abdulsallam, and Alkali (2017) investigate the impact of IFRS on the quality of accounting information among firms listed on the Nigerian stock market for the period 2009 to 2013. Among other things, the study found no significant difference between the pre-IFRS period and the post-IFRS period concerning value relevance. Umobong and Akani (2015) study accounting quality and IFRS adoption of listed cement manufacturing and brewery firms for the period 2009 to 2013. The independent samples T-Test for equality of means and the use of OLS regression. The study finds that in the Post-IFRS period, there has not been a decline in the degree of earnings management. Also, book values and earnings show that less value relevant in the post-IFRS period relative to the pre-IFRS period, with timely loss recognition being insignificant but more significant in the after IFRS adoption.

Onalo, Lizam, and Kaseri (2014) study twenty Nigerian Banks over six years and find that IFRS is associated with trifling timely recognition for losses and earnings management. Ahmed, Chalmers, and Khlif (2013) conduct a meta-analysis of the effects of IFRS. They discover that generally, the value relevance of earnings assessed using price models has increased during the post-IFRS adoption, while the value relevance of equity shows no increase. Also, they report a significant increase in analysts' forecast accuracy as well as no reduction in discretionary accruals within the after-IFRS period. They further state that the model interacts with their results applied for the empirical exploration of discretionary accrual effects and value relevance, as well as of mandatory or voluntary adoption. Moscariello et al. (2014) find no significant impact regarding IFRS adoption, even though all the firms used in the study had adopted IFRS.

Kaaya (2015) conducts a desktop review of existing studies on IFRS and earnings management. The study finds the available empirical evidence to be inconsistent, mixed, and difficult to generalize. Ames (2013) conducts a study on accounting information quality (earnings quality and value relevance) position after IFRS adoption in the Republic of South Africa from 2000-2001, by adopting a logistic regression, among other techniques. The study reveals that the quality of earnings has not improved significantly in the post-IFRS period. In contrast, the value relevance of the principal balance sheet components has changed during the post-adoption period. Qu, Fong, and Oliver (2012) conduct a study on the impact of IFRS on the quality of accounting information using a sample of 309 A-share companies listed on the Chinese stock market for the period 2004 to 2010 by adopting the Wilcoxon signed ranks test and longitudinal multiple regression analysis. They reveal that the book value of equity and EPS are strongly negative and positive determinants respectively of market return in both the pre- and post-IFRS periods. Their findings further suggest that investors rely on the income statement to make decisions in the post-IFRS adoption period.

Horton, Serafeim, and Serafeim (2008) investigate the impact of mandatory IFRS adoption on companies' information environment by considering both mandatorily and voluntarily adopted companies. The study covers 2127 firms from 16 European countries for the period 01/01/2003 to 31/12/2007. It uses the pooled OLS, among other techniques. The study finds firms that voluntarily adopted IFRS to have the most significant improvement in the information environment during the mandated transition to adopt IFRS. However, for firms that mandatorily adopted IFRS, only non-financial firms experienced an improvement in the information environment. Karthik and Yang (2012) conduct a study on mandatory IFRS adoption and voluntary disclosure using Poisson, logit regression estimates, among other technique(s). The study, among other findings, reveals increased probability and frequency of management earnings forecasts for firms in countries that adopted IFRS in 2005. Cai, Rahman, and Courtenay (2012) use OLS and GLM, among other techniques, to investigate which is more critical, the convergence of IFRS or IFRS adoption, using data from thirty-one countries. Their findings suggest that countries with fewer quality standards in accounting would gain more from adopting IFRS. Outa (2011) studies listed companies in Kenya and reveals more value relevance of financial statements, more time loss recognition, and less

evidence of earnings management among firms that conformed to IFRS than local GAAP companies.

Horton, Serafeim, and Serafeim (2010) examine the effect of IFRS on the information environment. The study finds sound consensus forecast errors to decrease for mandatory IFRS adopters relative to that of other firms. Also, falling forecast errors were found for voluntary adopters, even though the effect is not robust. Halabi and Yi (2015) conduct a study of twenty-three countries on the impact of IFRS on earnings quality for the period 2007-2011. Their study utilizes 16,238 observations across eight industries. Real earnings management and accruals are measures for the quality of proxy earnings. The study finds vigorous enforcement of accounting standards; it also discovers that the strength of the capital market and investor protection have a significantly negative and positive relation to the management of accruals and real earnings, respectively. The findings suggest that IFRS alone cannot improve earnings quality if there are no strong institutions. Ossip (2011) uses a sample of two hundred and fifteen firms and eight hundred and sixty firm-year observations for the period 2003-2004 (pre-adoption period) and 2007-2008 (post-adoption period) to investigate the value relevance of mandatory IFRS adoption in South Africa. 2005 and 2006 did not use because IFRS had just been adopted implemented. The study finds that financial statements reported under IFRS are less value relevant than those under GAAP. Further, while earnings per stock show an increase in value relevance in the post-IFRS period, the book value of shareholders' equity shows less value relevant after the adoption of IFRS.

### **2.8.1 South African Background**

In the context of Africa, South Africa's capital market is the most prominent. It, therefore, requires all listed companies (with certain exceptions) to disclose consolidated financial statements that comply with IFRS for every financial year, effective from January 1, 2005, as announced by the South African Institute of Chartered Accountants (SAICA) Circular 7/2004. This has been a result of the transparent information environment of IFRS of the South African capital market. Though the national expect IFRS to produce different effects from the pre-adoption standards (Ashbaugh and Pincus, 2001; Bae et al., 2008) as the former enhances an overall commitment to transparency as compared to the national standards (Daske et

al., 2008; Leuz and Verrecchia, 2000). The mining and manufacturing industries of South Africa account for over 60 percent of South Africa's exports. However, a fall in Gross Domestic Product (GDP) below 2 percent is partly due to negligible growth in mining and manufacturing. So, is the fall in growth due to the higher cost of debt capital under the shift to IFRS or weakened macroeconomic factors within the information environment of firms? Debt capital financing in these two industries is enormous, since it is a capital-intensive business and, therefore, facilitates better debt contracting, which attracts a higher cost of debt. The study by Moscariello et al. (2014) is conducted in European countries (Italy and U.K) for the period 2002 to 2008. However, several considerations create the need for the research to be replicated in subsequent periods, especially in South Africa. Such considerations could include an enforcement mechanism, cost of capital, especially debt capital covenant, and information environment. The effect of IFRS adoption on the cost of debt could have different implications for debt-holders.

### **2.8.2 South Africa Mining, Agricultural, and Manufacturing Industry/Non-Financial Institutions**

The discovery of gold deposits in the Republic of South Africa in the current Limpopo in 1870, but industrialization development took place after the discovery of the Witwatersrand reef in 1886 (Sorenson, 2011). Elbra (2013) explains that the consolidation of holdings is needed to boost the South African mining industry. The South African economy recorded a 21% increase in the GDP four decades ago but currently contributes 8.6% (South Africa Chamber of Mines, report 2014). In 2015, the trend is still in the decrease. Current and potential investors, as well as company managers, are expected to know the credibility of financial information. A manufacturing-based economy is said to be the most relevant for South Africa. Across the various sectors, manufacturing remains the most dependable in absorbing more of the most unskilled and semi-skilled workforce in the country. Considering the commodities-based economy which the country runs at the moment, a manufacturing-based economy is considered much better. It is not only because of the high value it adds to the economy but also for the fact that it insulates the economy from the shocks in global commodity prices. Already, there are global manufacturing value chains – such as textiles, metal processing, leather, paper, and chemical and agro-processing – in which South Africa finds a niche. Firm managers and investors determine the current

state of the South African economy and its prospects by intensifying its diversification agenda to leverage its comparative advantages through specific manufacturing sector development.

### **2.8.3 History of IFRS in South Africa**

Listed firms in the Republic of South Africa are mandated to adopt IFRS, whereas the residual firms or SMEs have the option to use IFRS or the Local GAAP. At the beginning of 1995, the Accounting Practices Board decided to blend both South African GAAP and IFRS (SAICA, 2015). From 2003, the Accounting Practice Boards adopted IFRS to replace Local GAAP without any amendment. Since 2003, the Local GAAP is applied by all South African registered or unregistered, listed, and unlisted companies (SAICA, 2015). The Johannesburg Stock Exchange (JSE) requires registered companies to adopt IFRS (instead of the harmonized Local GAAP) starting from January 1st, 2005. In 2011, the government implemented new regulations under the Companies Act of 2008 that proposes the disclosure structures based on each firm's public interest score (SAICA, 2015). The Act authorizes the use of IFRS by all listed firms, but SMEs could either use IFRS or Local GAAP in specific instances. Nevertheless, the Local GAAP was practically the same as IFRS; Local GAAP was withdrawn retroactively to 1 December 2012 (SAICA, 2015).

Writing on the effects of IFRS adoption on accounting quality, Ames (2012) argues that South Africa is a relevant country within the African continent. Its adoption of the IFRS in 2005 for listed firms was exceptional. According to the IFRS (2011), the powerhouse and the great example have been South Africa. South Africa is a perfect reference point for the other prerogatives in Africa (IFRS, 2011). According to van Rooyen (2010), the company law makes the establishment for IFRS and the Johannesburg stock exchange complement each other. Pacter (2008) agrees that South Africa has been the leader and the promoter of IFRS on the African continent.

Pacter (2008) also writes that South Africa is one of the few countries that did not go through an endorsement process. The stock exchange just made IFRS adoption an obligation. Elsewhere, to protect their sovereignty, governments realize the need to go through an endorsement process (IFRS, 2011). As the economic powerhouse of Africa (UNCTAD, August 2007), South Africa's gross domestic product (GDP) is 300%

higher than the remaining Southern African nations. It constitutes about 25% of the entire Sub-Saharan African continent's GDP. The following statements will affirmatively the economy of South Africa:

The economy of the Republic of South African improves on a consistent performance that translates into increased interest by local and international investors in the market. At the same time, trading volume reaches a record level. The country dwells on the principle of equality, non-racialism, and non-sexism. SA has built a robust democratic institution to create an enabling society base on the rule of law, after soothing economic growth, more job creation, and increase of opportunities. The harmonization and outlay of accounting information and the positive impact of the adoption of IFRS on the business environment of the nation make it friendly for local and foreign investors (UNCTAD, 2007).

The South Africa Accounting Body, the JSE, and the South African Accounting Practices Board has noticed the significance of being part of the world economy concerning financial disclosure (UNCTAD, 2007). In February 2004, a decision was taken by the Accounting Practices Board to issue the text of IFRS as a South African statement of the local GAAP without any adjustments. The motive for the constant coordination and delivery of the text of IFRS as a Local GAAP to enable South African companies to attract foreign investors, to publish credible reports of JSE firms to the global market, and for dual-listed entities, to avoid preparing financial statements following more than one set of accounting standards (SAICA, 2015). The Republic of South Africa thus presents a cardinal point of reference for any study on IFRS in the Sub-Saharan Africa

#### **2.8.4 The legal evolution of South African IFRS**

In the Republic of South Africa, corporate reporting is not regulated by the 1973 Companies Act, No. 61. Instead, the standard-setting procedure outside the scope of the Companies Act. It necessitates conventionality practices. Perceptions of the Local GAAP are distilled into the Companies Act and later converted to IFRS. In 2011, the government adopted new regulations under the Companies Act of 2008. These regulations permit the use of either IFRS or SA GAAP for SMEs in different cases. SA

GAAP is almost the same as IFRS; therefore, the local GAAP is out of use, starting from 1 December 2012.

Companies whose securities are traded in public markets are obligated to use IFRS. Some other companies whose equities not publicly traded are required to use IFRS because they fall outside the scope of the IFRS for SMEs. Companies within the scope of the IFRS for SMEs are allowed to use that standard or may consider full IFRS. SAICA has a contract with the IFRS Foundation to give all its members' entrée to IFRS. An additional royalty covenant with the IFRS Foundation permits SAICA to sell A Guide through IFRS to students and members (SAICA, 2015).

South Africa accepts the Exposure Draft on the IFRS for SMEs for use by local companies when it is delivered by the IASB in 2007, to provide instant relief for limited interest companies under the pending Corporate Laws Amendment Act of 2007. As an outcome of the initial agreement of the standard in South Africa, SAICA can deliver feedback to the IASB on the practical issues recognized by local companies in employing the standard. At the time IFRS for SMEs is issued, the South African standard withdrawn (SAICA, 2015).

SAICA submitted a draft by the Accounting Practices Committee (APC) to IASB. Once IASB issues an IFRS, APC reviews IFRS to certify that it is not in conflict with any South African laws before recommending it to APB to be issued as a South African Statement of GAAP (UNCTAD, 2007). As of 1993, the Republic of South Africa uses its Statement of their Local GAAP with international standards, even though the South African version of the international standards is as South African Statements of GAAP and interpretation of Statement of GAAP after a due course. As an outcome, The Republic of South African Local GAAP, in many ways, is comparable to IFRS. Minor dissimilarities exist as a consequence of different effective dates.

In some cases, options allowed in IFRS detach from South African Local GAAP, and additional exposé requirements have been included (UNCTAD, 2007). In February 2004, APB decided to adopt IFRS as South African Statements of GAAP without any amendments. From then on, each of the local GAAP would match with IFRS.

### **2.8.5 IFRS and Single Country Study**

This dissertation is a single country study. There are numerous merits when researchers focus on a single IFRS adoption nation. Firstly, this type of study makes room to evaluate a homogenous sample size of companies that conform to the identical legal and regulatory framework and have ownership structure and capital market incentives that are broadly comparable. Secondly, to concentrate on a single country enable researchers to investigate the nuances of a country's institutional environment that promotes better identification and control of confounding events. Thirdly, it allows for resources to manually collect data/ information that are not available through a machine-readable database.

## **2.9. EMPIRICAL REVIEW**

This section reviews empirical evidence on the impact of IFRS on the cost of equity capital, the cost of debt capital, returns, and profitability as well as the effect of IFRS on macroeconomic indicators. The review was divided into subsections, as outlined below.

### **2.9.1 The Impact of IFRS on the Cost of Equity Capital**

Recent financial reporting investigation has shifted to the effect of IFRS adoption on the cost of equity; following the pronouncement by Levitt (1998) that high-quality accounting standard reduces the equity cost. Most of these studies focused on European countries where IFRS was first adopted, either voluntarily or mandatorily or both. Mihai, Ionascu, and Ionascu (2012) compared the pre- and post-adoption periods and concluded that the average cost of equity decreased after IFRS adoption in Romania. Mihai et al.'s (2012) study has limitations; the study used the expected value of the share as a proxy for the cost of capital. However, Botosan, Plumlee, and Wen (2011), after assessing the reliability of all proxies for cost of equity, recommended PEG Method by Easton (2004) and Target Price Model (rDIV) for having highest constructs validity. Hence, the proxy used by Mahai et al. (2012) does not provide the highest degree of construct validity (Botosan, Plumlee, and Wen, 2011). Gassen and LaFond (2006) gave little evidence to the use of share price synchronicity as a measurement firm's information on firms.



Easton (2004) uses rPEG proxy for the cost of equity was used. The independent variables included leverage, return on asset, and return on equity, Beta factor, inflation, gross domestic product, Dow Jones, and IFRS (the control variable). The study found that mandatory IFRS had a significant negative impact on the cost of equity.

Turki, Wali, and Boujelbene (2017) investigate the correlation between mandatory IFRS/IAS adoption and firms' earnings among the EU member states from 2002 to 2012 by employing random effects and fixed effects. The study finds that IFRS to decrease the capital cost and the reaction by financial analysts forecast for two years after adoption, which further decreases as the years of IFRS adoption increase. Gatsios, Da Silva, Ambrozini, Neto, and Lima (2016) conduct a study in Brazil on the effect of IFRS on equity cost of venture capital firms for the period 2004-2013 using the difference in difference analysis. The study shows that IFRS does not reduce equity costs. Further, among other findings, the total asset also shows a negative impact on equity cost. Dignah, Latiff, Karim, and Abdul-Rahman's (2016) research applies a correlation between fair value accounting and cost of equity using a sample of 114 Banks in twenty-six Asian countries for the period 2007-2013. The study adopts the generalized method of moment technique and finds a positive effect between the cost of equity and assets at a fair value.

Turki, Wali, and Boujelbene (2016) examine the impact of IFRS on financial analysts' forecast and the cost of capital of listed French firms for the period 2002 to 2012 by employing the fixed effect model, correlation analysis among other(s). The study finds IFRS to decrease the cost of capital and improve financial analysts' forecast. Houqe, Monem, and Zijl (2016) use the periods of 1998-2002 and 2009-2013 and 290 firm-year observations of listed companies in New Zealand to study the economic effects of IFRS adoption. The study finds a significant negative influence between IFRS adoption and firms' cost of equity capital. Total assets and market to book ratio sh a negatively significant statistical impact on the cost of equity capital. Castillo-Merino, Menéndez-Plans, and Orgaz –Guerrero (2014) investigate the impact of IFRS adopted Spanish listed companies' cost of equity from 1999 to 2009 by applying OLS regression technique. They find that IFRS negatively affects firms' cost of equity capital, while leverage has a positive impact.

Cormier and Magnan (2014) explore the degree at which IFRS adoption would reduce the information gap between shareholders and managers in Canada using a sample of 220 firms and employing a descriptive analysis, OLS regression, among other techniques. The study finds that IFRS adoption coincides with a fall in equity cost, a falling bid-ask spread, a rise in analyst following, a low dispersion in analyst forecasts, and low analyst forecast error. Also, IFRS enhances the value relevance of earnings while there is a slight fall in profitability under IFRS. Daske (2014) uses firms in German that have applied all standards (IAS/IFRS or US-GAAP) for the period 1993-2002 before the European Union's requirement that all listed firms adopt IFRS from 2005/2007, to investigate whether such standards reduce the cost of capital. The study uses pooled OLS, cross-sectional Fama- McBeth (1973) regressions, among other techniques. The findings generally fail to show the expected lowest cost of equity capital for firms that adopt the IAS/IFRS or US GAAP.

Patro and Gupta (2014) investigate the impact of mandatory IFRS adoption on the cost of equity capital in Hong Kong, China, Philippines, and Israel for the period 2006-2011 using the random effects approach after finding that the fixed effects and the pooled OLS are inappropriate. The study finds that the cost of equity capital after IFRS adoption increased insignificantly for Chinese and Israeli firms. At the same time, it decreased (significantly) for firms in Hong Kong and the Philippines. Further, return variability, leverage ratio, foreign sale, and total assets show a significant effect on the cost of equity capital. Han and He (2013) investigate the equity capital of listed firms in the USA for the period 2004-2009, during which foreign issuers are allowed to adopt IFRS. The study uses OLS regression and finds the cost of equity in foreign firms to be lower during the US-GAAP reconciliation period (2004-2006) than during the IFRS period (2007-2009). Also, foreign firms report a higher cost of equity in both periods consistently.

Leung (2013), using data from 2000-2009 covering 7,294 firm-year studies for firms in the EU, finds that averagely, mandatory IFRS adopters have significantly reduced the cost of equity by 1.2%. Li (2010) uses 6,456 firm-year observations of 1,084 firms in the EU for the period 1995 to 2006 to find out whether mandatory IFRS adoption reduces the cost of equity capital. The study finds that, averagely, mandatory IFRS significantly decreases the cost of equity by 47 basis points, with this reduction only

existing in countries that have vigorous law enforcement. Further, increased disclosure and improved information comparability are mechanisms underlying the fall in the cost of equity. Munteanu (2011) conducts a review of past studies and finds that most of the studies revealed IFRS to have reduced the cost of equity capital of firms, with severe and voluntary IFRS adopters experiencing significant reductions in the cost of equity capital relative to mandatory adopters. Al-Shiab (2008) investigates the influence of IFRS adoption on firms' cost of equity capital among the public listed (on the Amman Stock Exchange) Jordanian firms for the period 1996-2000 by adopting a vector error correction model. The study finds that financial risk, business risk, and the level of disclosure that firm complies with IFRS show no significant influence on the cost of equity capital.

### **2.9.2 The Impact of IFRS on the Cost of Debt Capital**

Florou and Kosi (2015) use an international sample of private loans and public bonds from 2000 to 2007, single equation analysis, and endogenous switching model to investigate, among other things, the impact of IFRS on the cost of debts. The study finds that mandatory IFRS adoption reduces the cost of public debt, but shows no significant association between the cost of private debt and IFRS. Karacaer, Temiz, and Gulec (2016) study the determinants of capital structure among 131 Turkish Listed manufacturing firms for the period 2005-2014, given that Turkish listed firms adopted IFRS in 2005. The study uses OLS, random effect, and fixed effect regression techniques. The study finds tangibility, liquidity, and profitability to have a negatively significant statistical impact on capital structure (total debt divided lagged total assets). In contrast, firm size and growth opportunities had a statistically positive significant impact on capital structure.

Choi and Lee (2015) investigate the relationship between IFRS non-audit consulting services and the cost of debt of listed firms in the Korean Stock Market from 2008 to 2012 using ordered logit and ordinary least squares regression techniques. The study finds that IFRS on non-audit consulting services show a decrease in their cost of debt after IFRS adoption period. Specifically, non-audit consulting services are negatively related to the interest rate (cost of debt proxy 2) but positively related to the client's bond credit rating (cost of debt proxy 1). Also, size, leverage, and return on assets, among other findings, are found to have a positive, negative, and positive impact on the

cost of debt (credit rating), respectively. Further, size, leverage, and return on assets, among other findings, are found to have a negative, positive, and negative impact on the cost of debt (Interest rate), respectively.

Moscariello, Skerratt, and Pizzo (2014) observe the impact of IFRS conformity to the cost of corporate debts in the United Kingdom and Italy by using a sample of 74 Italian and 88 UK firms for the period 2002 to 2008. The study adopts both interactive and shift models. They find that while IFRS adoption does not influence the cost of debt in the UK, the interaction of IFRS with interest cover shows a statistically negative impact on the cost of corporate debt. Further tangibility and the interbank rate show a negative and positive impact on the cost of corporate debt, respectively, in both the UK and Italy. Also, interactions of IFRS with sales and tangibility are all found to be insignificant. Chen, Chin, Wang, and Yao, (2015) pilot a study on "what an impact of mandatory IFRS adoption has bank loan attraction." The study compares firms in countries that mandatorily adopted IFRS to firms in countries that did not adopt IFRS for the period 2000-2009. The study shows that interest rate increased by 22 basis points after firms adopted IFRS mandatorily while interest rate decreased by a six-basis point for non-IFRS firms. The research further shows that loan maturity decreased by one month after IFRS adoption. However, the loan maturity of non-IFRS firms did not significantly change within the same period. This suggests that mandatory IFRS adoption, though not too significant, increases the interest rate on loans, increases collateralization requirement, but at the same time decreases the loan period.

Pizzo, Moscariello, Skerratt, and Gregoriou (2009) use one thousand and twenty-nine company-year observations from Italy and UK from 2002 to 2008, find that mandatory IFRS adoption does not have any impact on the cost of debt of either Italy or the UK. Further, leverage, interest cover, and returns on the asset show a negative impact on the cost of debt. Prather-Kinsey, Jermakowicz, and Vongphanith (2008) investigate the effects of mandatory adoption of IFRS in one hundred and fifty-seven European Firms. The research shows that capital market participants find financial reports of IFRS-adopters with credible informative and value relevant. Moreover, hence lead to a lower cost of debt but noted that in the UK, interest cover becomes a significant factor in clarifying the cost of debt situation after IFRS adoption. Malinić, Denčić- Mihajlov, and Ljubenović (2013) using panel data from 2008-2011 and a fixed effect regression

technique find the impact of tangibility, cash gap, liquidity, and profitability on both total and short-term debt ratios (leverage) among one hundred and eight Serbian non-financial firms listed on the Belgrade Stock Exchange to be negative.

Easley et al. (2002) acknowledged the premium of shares listed on the New York Stock Exchange (NYSE), observing that stocks with private information anticipate high returns than to shares with public information. In a recent study, Easley et al. (2010), after adjusting for Fama-French (1992) three risk factors, liquidity and momentum factors, reported that credible information influences stock returns.

### **2.9.3 Impact of IFRS on Share Price**

Firm value and firm performance differ between well and poorly managed businesses (see, Chhaochharia and Grinstein, 2007; Walter, and Yermack, 2012).

Beuselinck, Joos, Khurana, and Van der Meulen (2009) analyze 2,071 companies' data from 14 countries within the European Union that have adopted IFRS mandatorily. The research shows a better stock return for EU companies than Luxemburg. The research used multiple linear regression analysis to test the research objective. Their results revealed that IFRS adoption makes credible informativeness about a company, hence lessening surprise content of the information disclosure prospects. The work could not cover the motivations for IFRS adoption. With regards to a reliable and transparent implementation mechanism; therefore, the findings of the study cannot be generalized with less enforcement mechanism countries.

To explain and assess the effect of IFRS adoption on stock prices and the trading volumes was piloted by (Landsman, Maydew, and Thornock, (2012) analyze the computing theories and employ data from 16 nations which mandatorily adopted IFRS and 11 states that maintained their local GAAPs as of 2002 to the 2007 years. The use of multiple regression analysis tests the research goals. It applies multivariate regression and univariate analyses to assess companies' returns and trading volume. In that way, earnings announcements have improved after the IFRS adoption, have improved on reporting time lags, increase in foreign investments with credibility on analysts' predictions, and also improved accounting reporting quality.

According to Okoye, Okoye, and Ezejiofor, (2014), to thoroughly test the credibility of the financial reports, employed descriptive statistics to examine the effect of IFRS adoption on the stock market activities in Nigeria. Data for the 2011 to 2012 years period to observe any increases in the credibility of Nigerian listed firms' financial reports after IFRS adoption. Since IFRS adoption expects to generate credible reports, their study posits such and therefore recommends to the federal governments to advocate for mandatory IFRS adoption. Not all researchers have this view with the benefits of IFRS adoption. However, the study did not consider voluntary and mandatory adopters.

#### **2.9.4 The Impact of IFRS on Firm Performance**

Sanyaolu, Iyoha, and Ojeka (2017) assess the effect of IFRS compliance on the earnings per share and earnings yield of fifteen banks quoted on the Nigerian stock exchange for the period 2009 to 2014 by adopting the pooled OLS technique. The study, therefore, finds the statistically significant influence of IFRS on both EPS and earnings yield. Also, firm size, market price, and board size show a negative, negative, and positive statistically significant influence on earnings yield, respectively. In contrast, market price and board size show a significant positive effect on earnings per share. Umobong and Ibanichuka's (2016) study of whether IFRS reduces the financial performance of beverage, food, and pharmaceutical firms in Nigeria for the 2006 to 2014 period by employing ANOVA and independent T-test. The study shows no significant differences in the mean of the return on equity, return on assets, and earnings per share in both the pre- and post-IFRS adoption periods.

Ironkwe and Oglekwu (2016) conduct a study by comparing the profitability of listed manufacturing firms in Nigeria during the pre-IFRS period (2009-2011) and the post-IFRS period (2012-2014). Analysis of Variance and descriptive statistics are employed by the study to attain its objectives. They find no statistically significant impact of pre-IFRS and post-IFRS on returns on equity and earnings per share. Adeuja (2015) explores the impact of IFRS on the financial performance of Nigerian banks for the period 2010-2013 using descriptive financial ratio analysis and an independent t-test. Bank performance indicators are liquidity, leverage, asset quality, and profitability. The findings of the study show no statistically significant difference due to the adoption of IFRS. Huian (2015) studies the impact of IFRS on the liabilities and financial assets of

65 nonfinancial firms listed on the Bucharest Stock Exchange for the 2011-2012 periods. The study finds a change in the accounting system to have slightly affected financial instruments. However, the relationship between financial assets/ liabilities and returns on equity showed higher intensity in the IFRS data.

Umobong (2015) examines IFRS and the corporate financial performance of manufacturing firms in Nigeria. Earnings per Share, Price-Earnings Ratio, and Dividend Yields are the performance indicators used while the t-test is the statistical technique employed. The findings of the study suggest a weak correlation between IFRS and the market performance of the selected firms. Abata (2015) studies how IFRS affects financial reporting in Nigeria by sampling 50 employees from KPMG. The study employs the Pearson chi-square, mean score, and standard deviation to analyze the data. The study finds that financial statements prepared following IFRS enhance best practices as well as ensure more enormous benefits and performance.

Alsaqqa (2012), among others, investigates the effect of IFRS on stock performance and profitability of firms listed on the Abu Dhabi stock exchange and the Dubai Financial Market by adopting multiple regressions based on the Ohlson and modified Ohlson models. The study finds IFRS to ensure value relevance in both the Abu Dhabi stock exchange and the Dubai financial market with a higher relative effect on the latter. Besides, the study finds IFRS to have a significant impact on the trading volume of shares even though that of the Abu Dhabi stock exchange is higher. Tanko (2012) investigates the impact of IFRS adoption on the performance of some listed Nigerian banks that are on the stock market by employing t-test and logit regression. The study reveals that in the IFRS period, more frequent recognition of losses attained, leading to higher accounting quality relative to the pre-IFRS period. It shows that firms gained lower liquidity, higher leverage measures, and higher values on earnings per share and market-to-book value ratio in the IFRS period.

Goodwin, Ahmed, and Heaney (2008) study the effects of IFRS on the Accounts and Accounting Quality of 1,065 listed Australian firms. They find that IFRS decreases equity, increases total liabilities, and decreases firms' earnings. Additionally, they find no evidence that book value and IFRS earnings are mostly value relevant as compared with the local GAAP. However, the leverage ratio shows higher under IFRS. Lenger,

Ernstberger, and Stiebale (2011) study the effect of IFRS on the investment efficiency of public and private European firms. The study finds that IFRS has an investment efficiency advantage for public firms, which is more pronounced for a period of mandatory IFRS adoption. The findings on private firms' investment efficiency are different; while private firms that adopted IFRS show lower over investment than private firms who adopted the local GAAP, they were found to engage in more underinvestment.

### **2.9.5 The Impact of IFRS on Macroeconomic Performance**

Akpomi and Nnadi (2017) investigate the impact of IFRS on Foreign Direct Investment (FDI) among forty-five African countries for the period 1996 to 2011, using the fixed effect estimation technique. The study finds IFRS to have a significant positive effect on FDI inflows. Lungu, Caraiani, and Dascălu (2017) study emerging countries in the EU and find countries adopting IFRS to be more likely to obtain higher FDI flows than non-adopters. Among adopters (firms) of IFRS, listed companies' have a higher impact of IFRS on FDI flows than unlisted companies. Also, among firms who adopted IFRS, listed companies' have a higher impact of IFRS on FDI flows than unlisted companies. Among other things, Ramanna and Sletten (2009) study a sample of 102 non-European Union countries and find that a country is more willing to adopt IFRS if its trade partners or countries found in its geographical setting have adopted IFRS. Also, Louis and Urcan (n.d) find IFRS to increase FDI. However, these studies concentrate on the effect of IFRS on FDI with none of the studies above considering the impact of IFRS on GDP growth, exchange rate, government borrowing, and interest rate. This study thus fills a significant gap in the literature by being the first to the best of the author's knowledge, to have investigated the impact of IFRS on macroeconomic indicators aside FDI.

Pricope (2017) investigates the impact of IFRS on FDI flows in 38 developing countries using a sample from 2008 to 2014 by employing the propensity score matching method. The finding shows a positive effect of IFRS adoption on FDI in developing countries. Ifeoluwa, Ojeka, and Odianonsen (2016) study mandatory IFRS adoption and FDI flow in Nigeria using the paired t-test analysis and descriptive statistics. The results show an increase in FDI in the year of IFRS adoption (2012) as well as the next year (2013).



However, in the post-adoption period of 2014 and 2015, there is a fall in the inflow of FDI.

Olugbenga, Aanu, and Mary (2016) determine the relationship between IFRS and FDI in Nigeria by administering 165 questionnaires to preparers and users of annual reports and adopting the OLS regression technique. The study, therefore, finds that IFRS has a significant positive relationship with FDI. Sherman and de Klerk (2015) study IFRS and foreign investors levels in the Republic of South African listed firms from 2003-2007. They find that during the sampled period, the adoption of IFRS did not have any statistically significant positive relationship with foreign ownership levels. Efobi and Nnadi (2015) investigate the impact of IFRS on FDI in the presence of foreign aid using a panel of ninety-three countries for the 2003-2012 periods by employing the system GMM together with the Sargan and autocorrelation tests. Conditioned by foreign aid, the study finds IFRS to attract more FDI. Emeni (2014) examines the relationship between FDI and IFRS adoption in 46 African countries, applying the ordered logistic regression method. The research shows a positive but insignificant impact of FDI on IFRS adoption. Lasmin (2012) finds that developing countries that adopted IFRS are less likely to have higher international trade and FDI inflows. Gordon, Loeb, and Zhu (2012) investigate the impact of IFRS on FDI in 124 countries with 1300 observations for the 1996-2009 period by employing the OLS, a difference-in-difference test, and a two-stage instrumental variable (IV) model. The study finds that the adoption of IFRS increases FDI flows. Also, Henock and Oktay (2012) reveal that IFRS increases FDI.

## **2.10 HYPOTHESIS DEVELOPMENT**

The central hypothesis for the study revolves around four primary thematic information environments about the IFRS adoption are information asymmetry, managerial opportunism, analyst following, and third- party assurance.

### **2.10.1 Cost of capital and IFRS interaction with information asymmetry**

Information asymmetry has gained much ground in accounting and finance due to its profound effects on the firm's investment decision-making and managerial incentive earnings management (see Leland and Pyle, 1977; Grossman and Hart, 1981; Myers and Majluf, 1984). Information asymmetry affects the cost of capital, with investors demanding a higher cost of capital for stocks with private information. Confidential

information produces systematic risk, making investors demand higher returns (i.e., higher cost of equity capital). Uninformed investors demand a higher premium to spend on businesses about which they have very little or no information. Easley and O'Hara (2004) noted that uninformed investors demand this premium as compensation for trading with informed investors in a business' stocks. Hughes, Liu, and Liu (2007), however, indicate that in a large market, the uninformed investors can diversify this information risk, leading to information asymmetry insignificance in the cost of capital determination. Admati (1985) analyzed the effect of information on asset equilibrium price by focusing on agents with diverse private and public information. Admati (1985) noted that each agent has a different risk-return tradeoff, leading to differences in the expected cost of capital.

Cost of capital and Information asymmetry are positively correlated (Barry and Brown, 1985; Handa and Linn, 1993; Coles et al., 1995; Hubbard, 1998; O'Hara, 2003; Easley and O'Hara, 2004; Hughes et al., 2007). Easley and O'Hara (2004) analyze differences in the composition to rely on public and private information. They contend that less-informed investors recognize that they lack information and therefore hold fewer assets consequently. It marks down the price of securities with high degrees of private information, thereby increasing the cost of capital for these firms. Hughes et al. (2007) argue that information asymmetry increases the cost of capital by increasing factor risk premiums. It is an indication that the lower information asymmetry, the cost of capital reduction and with higher information asymmetry, the higher the cost of capital (Diamond, 1985; Glosten and Milgrom, 1985; Amihud and Mendelson, 1986; Diamond and Verrecchia, 1991; Botosan, 1997; Healy and Palepu, 2001; Botosan and Plumlee, 2002; Habib, 2006). Accounting information disclosure is an essential explanation for reduced information asymmetry that leads to lower firms' cost of equity capital.

Diamond and Verrecchia (1991) and Callahan et al. (1997) note public accounting information disclosure as a less important factor of information asymmetry. Thus, quality and frequent accounting information disclosure reduce information asymmetry, resulting in lower transaction cost and cost of capital. It negatively affects public disclosure on information asymmetry, and resulting in a lower cost of capital has been identified in the literature (Leuz and Verrecchia, 2005; Hail and Leuz, 2006; Sengupta, 1998). This sort is to reconcile divers / contradictory findings on information

asymmetry effect on the cost of equity that conjecture market situations wherein imperfect market information asymmetry causes risk factors (Armstrong et al. 2011). In international research, Hail and Leuz (2006) conclude that nations with an enabling information environment have a lower cost of equity capital. IFRS adoption of listed manufacturing and mining firms in South Africa increases information asymmetry, which reduces inherent conflict of interest, reducing the cost of equity capital. We perceive a positive relationship between the cost of equity capital and IFRS interaction with information asymmetry.

Analysts' activities affect the cost of debt in two ways. Firstly, they provide forecasts to reduce information asymmetry, and secondly, they produce information to monitor managers' behaviour. The relationships between IFRS adoption, information asymmetry, and the cost of debt have a link to the firm's financial decision making. External debt financing is preferred because equity capital has the most significant adverse selection cost compared to debt capital (Myers and Majluf, 1984; Fama and French, 2002). IFRS adoption enhances the full disclosure of debt financing information by reducing information asymmetry problems. Quality reporting and better disclosure encourage lenders and underwriters to demand a lower risk premium and lower the cost of debt (Sengupta, 1998), Francis et al., 2005; Bharah, Sunder, and Sunder, 2008). Also, Zhang (2008) asserts that the timely recognition of losses in reports benefits lenders at a lower rate of return.

The hypothesis tested is:

*Hypothesis 1: Combined effect of IFRS-adoption and information asymmetry significantly influences the cost of capital of listed agriculture, construction, manufacturing, and mining firms in South Africa.*

### **2.10.2 Cost of capital and IFRS interaction with analysts following**

Analysts provide and disseminate firm or industry-specific information such as stock price information to capital markets to aid decision-making (Piotroski and Roulstone, 2004; Clement, 1999; Jacob, Lys, and Neale, 1999; Lys and Sohn, 1990; Francis and Soffer, 1997; Hong et al., 2000; Elgers et al., 2001; Ayers and Freeman, 2003). Analysts are, therefore, indispensable in private information production and dissemination in the determination of stock price in the capital market (Brennan, Jagadeesh, and

Swaminathan, 1993). Analyst following in this regard is to use a measure of information asymmetry (Brennan and Subrahmanyam, 1995; Krishnaswami and Subramaniam (1999), linking analysts following information risk. Analyst following helps to reduce information asymmetry between investors or stockholders and managers, making them essential intermediaries for market participants such as investors. Therefore, analyst following creates available information, thereby reducing information risk and cost of capital and increasing a firm's value. Improved secure information environment enables accurate estimates of firms' value by investors (Ashbaugh-Skaife, Collins, and LaFond, 2006), making information an essential element in bond yield.

Analysts' activities, aside from reducing information asymmetry, monitor firms' managers, and serve as substitutes for corporate governance (Klock, Mansi, and Maxwell, 2005). A financial analyst monitors role because they have financial expertise those board members may not have; provide financial information in the interest of current and prospective shareholders, track firms on a daily or regular basis, and subject financial reports to serious scrutiny. These put pressure on managers to present relatively fair and accurate financial reports, increasing transparency, and subsequently reducing information risk with a subsequent reduction of cost of capital and an increase in firm value. In a more concentrated study, the cost of equity capital reduction is a combined function of analysts following forecast properties and IFRS.

IFRS improves the information environment of financial and credit analysts in terms of quality financial information for meaningful investment decisions. IFRS adoption assures forecast accuracy, especially under stable enforcement regimes (Byard et al., 2011; Tan et al., 2011). Analysts' activities result in lower earnings management (Knyazeva, 2008) and lower cost of debt (Klock et al., 2005). An increase in information quality after IFRS adoption improves the quality of disclosure (Glaum and Klocker 2011), leading to enhanced analysts following, which, in turn, causes a reduction in the use of debt covenants, as IFRS improves financial transparency. The hypothesis tested is

*Hypothesis 2: IFRS adoption's interaction with analysts following will significantly influence the cost of capital of listed agriculture, construction, manufacturing, and mining firms in South Africa.*

### **2.10.3 The cost of capital and IFRS adoption interaction with managerial opportunism**

Managers adopt entrenched position and earnings management strategies as a way of enhancing managerial opportunism. Managers entrench themselves to counter any corporate governance or disciplinary mechanism (Shleifer and Vishny, 1997). Gompers et al. (2003) further Shleifer and Vishny's (1997) notion by building up the entrenchment index, consisting of 24 governance provisions. Gompers et al. (2003) identified the negative relationship between the entrenchment indexes and firm' value and stock returns. Earnings management is a proxy for managerial opportunism, and that managers engage in earnings management for personal gains. They employ tactics such as accruals, income smoothening, and real activities (Sun and Rath, 2008). Bharath et al. (2004) indicate that banks can detect firms with earnings management practices and charge them a higher cost for this act. Managers engage in earnings management to find suitable ways to finance debts took for projects (Sercu et al., 2006; Kieschnik and Urcan, 2006) and to remain committed to agreements (DeFond and Jiambalvo, 1994).

Within the realms of the perfect and efficient market, managers have no space to engage in managerial opportunism (Watts and Zimmerman 1979; Smith and Warner, 1979; Holthausen and Leftwich, 1983). However, the reality is the case that the capital market is imperfect, conditioned by information asymmetry (Dye, 1988; Trueman and Titman, 1988; Schipper, 1989) and agency cost (Jensen and Meckling, 1976), creating space for managerial opportunism. We anticipate an adverse effect on the cost of capital and its interaction with IFRS and managerial opportunism.

IFRS adoption limits management's opportunistic discretions but assures the promotion of full disclosure of information for meaningful investment decision making. Building on the results of the adoption of IFRS reduces firms' cost of debt (Li, 2010; Daske et al., 2008); and managerial opportunism and leads to an increase in the disclosure, which expects to reduce the estimation risk of shareholders. Nations with vigorous enforcement report a significant reduction in the cost of debt, while other findings exhibit no difference in the cost of debt capital. There is a considerable effort to promote IFRS adoption to ensure a quality information environment. It is to reduce the cost of debt of firms to enhance capital flows; there remain many questions to answer, as there

is laxity in the enforcement of good governance and maintenance of a healthy macroeconomic environment in African countries.

Notwithstanding South Africa exhibits robust enforcement mechanisms. Therefore, the hypothesis tested is:

*Hypothesis 3: IFRS adoption's interaction with managerial opportunism significantly influences the cost of capital of listed agriculture, construction manufacturing, and mining firms in South Africa.*

#### **2.10.4 Corporate performance and IFRS interactions with information asymmetry**

Corporate performance is an important issue that has been gaining the strategic attention of managers in mainstream financial analysis. Despite the interest in firm growth arising from corporate performance, empirical evidence in Africa is sparse as compared to earnings quality under IFRS adoption. Agency theory heightens information asymmetry between those charged with governance and the owners of the business. Information asymmetry focuses on the disclosure of inside information to benefit managers at the expense of shareholders. IFRS enjoins the management to disclose all material items as part of the financial statements to avoid distortion of information for analysts. An incentive to shift to IFRS may be better economic performance and firm value, under reduced information asymmetry. IFRS is meant to improve firm performance, as there is less interest expense associated with less debt capital and enhanced information disclosure (Merton, 1987; Brown et al., 2004). IFRS adoption of listed manufacturing and mining firms in South Africa increases information asymmetry that reduces inherent conflict of interest and improves corporate performance. The research expects a significant relationship between firm performance and IFRS interaction with information asymmetry. The hypothesis tested is:

*Hypothesis 4: Combined effect of IFRS-adoption and information asymmetry to significantly influence the corporate performance of listed agriculture, construction manufacturing, and mining firms in South Africa.*

### **2.10.5 Corporate Performance and IFRS interaction with the analyst following**

Financial analysts have provided both public and private sources of information needed by investors. This information is a significant aid to capital market development (Healy and Palepu, 2001). Therefore, financial analysts use intermediary between investors and firms (Schipper, 1991). Shareholders depend on financial analysts' predictions on firms' performance to make investment portfolio decisions. IFRS adoption improves public knowledge, and to reduces the cost of getting information, which tends to increase the number of analysts following on firms. Analyst followers are considered a proxy for the credibility of the firm's accounting environment (Lys and Soo, 1995; Lang et al., 2004; Brown and Higgins, 2002). Corporate performance is a standard function of analyst following and IFRS. In summary, the combined effect of high analyst following and IFRS creates an enabling environment for improved corporate performance. The hypothesis tested is:

*Hypothesis 5: Combined effect of IFRS-adoption and analyst following will significantly influence the corporate performance of listed Agriculture, construction, manufacturing, and mining firms in South Africa.*

### **2.10.6 Corporate performance and IFRS interaction with managerial opportunism**

Williamson (1985) defines opportunism as "self-interest seeking with guile." Managerial opportunism is an inevitable consequence of costly information. In a world of no transaction cost, including the cost of determining the behaviour and actions of stewards (managers), there would be no opportunism. The study examines whether the shift to IFRS reduces managerial opportunism. Quality financial reporting under IFRS heightens informative disclosure and promotes investor protection mechanisms. We posit that the adoption of IFR would cause a reduction in managerial opportunism (Luez, 2003; Iatridis and Rouvolis, 2010). We expect a negative relationship between corporate performance and interaction terms of IFRS and managerial opportunism. The hypothesis tested is:

*Hypothesis 6: The interaction effect of IFRS-adoption and managerial opportunism significantly influences the corporate performance of listed agriculture, construction, manufacturing, and mining firms in South Africa.*

### **2.10.7 Macroeconomic variables and IFRS interaction with information asymmetry**

Financial results of accounting reforms and practices that identify problems relating to information asymmetry in financial markets and also illustrates how investors and policymakers can access credible information for investment decisions (Morris, 1987; Sudweeks, 1989). Agency theory heightens information asymmetry between those charged with governance and the owners of the business. Information asymmetry focuses on the disclosure of inside information to benefit managers at the expense of shareholders. IFRS enjoins the management to disclose all material items as part of the financial statements to avoid distortion of information for decision-making. An incentive to shift to IFRS may be better economic performance and firm value, under reduced information asymmetry. It seeks to reconcile with the modernization theory (Ben Othman and Kossentini, 2015), characterizing a country's critical institutional factors to enable internationalization of trade and venture capital activities.

Chen, Ding, and Xu (2014) conclude that nations with an improved information environment can contribute to a higher level of FDI. Concerning IFRS adoption, there have been mixed results from developed and emerging economies (Marquew- Ramos, 2008; 2011). To establish an empirical link between IFRS adoption, macroeconomic variables, and FDI, Marquez- Ramos (2011) finds that there has been a decrease in information cost after the adoption by European nations has enhanced foreign trade and economic growth. There have been few studies about IFRS adoption in Sub- Saharan Africa and its attraction to FDI inflows. IFRS adoption of listed manufacturing and mining firms in South Africa has helped to control information asymmetry, reduce inherent conflict of interest, reduce the cost of capital, and increase FDI. Considering a particular hypothesis, the head on the above debate leads to our first significant hypothesis that anticipates a positive relationship between FDI and IFRS interaction with information asymmetry. The hypothesis tested is:

*Hypothesis 7: The macroeconomic performance of South Africa will significantly affect the combined effect of IFRS-adoption and information asymmetry.*

### **2.10.8 Macroeconomic variables and IFRS interaction with analysts following**

The peculiar problem of the investor is the theory of analysts following responsibilities. This perspective underpins' analysts following reports to investors based on the benefits



and costs of getting confidential information. In consonance with the benefits in a situation where analysts following firms have more credible knowledge about a firm. The above argument notwithstanding, companies' economic environment measures IFRS adoption effects on (interest rate, GDP growth, exchange, and government borrowing). It has become an alternate view that the sell-side analysts following provides some "seal of approval" for firms. Financial analysts follow firms that have credible financial reports. By extension, there is an extension of knowledge on transnational business, finance, and economics that explores issues regarding corporate governance and trading laws (Lang, Lins, and Miller, 2004; Bushman, Piotroski, and Smith 2005). In a more focused study, an increase in FDI is a combined function of analyst following forecast and IFRS enabling the environment to improve financial capital inflow. The hypothesis is:

*Hypothesis 8: The macroeconomic performance of South Africa will significantly affect the combined effect of IFRS-adoption and analyst following.*

#### **2.10.9 Macroeconomic variables and IFRS adoption interaction with managerial opportunism**

Signaling theory identifies challenges that relate to managerial opportunism in capital markets and also illustrates how it alarms investors (Morris, 1987). According to Larson and Kenny (1995) and Zaidi and Huerta (2014), one crucial issue that has been acknowledged and given considerable attention points to accounting and finance literature. Moreover, mostly is IFRS adoption to improve disclosure quality at the international level. IFRS forms the basis of accounting procedures that will widen a country's prospects of growth. A comparability benefit among investors is a matter of considerable interest and significance to the financial reporting community. However, the association between accounting information quality and macroeconomic indicators has mixed results. It is a fact that most of the studies on the benefits of IFRS adoption focus on Europe. It is not appropriate to assume that the results will be the same in the African context. This study concentrates on macroeconomic indicators and IFRS adoption interaction with managerial opportunism. IFRS is perceived to be the world's best collection and presentation of credible annual reports of firms to ensure an efficient capital market. IFRS adoption and managerial opportunism have a negative relationship because corporate managers manipulate the earnings of the firm to circumvent the adverse earnings (Degeorge, Patel and Zeckhauser, 1999). The hypothesis tested is:

Hypothesis 9: *The macroeconomic performance of South Africa will significantly influence the combined effect of IFRS-adoption and managerial opportunism.*

## **2.11 SUMMARY OF METHODS**

From the empirical, it can be observed that some of the commonly used methods are; random effects, fixed effects, and pooled ordinary least square panel data regression techniques. Single-equation analysis, endogenous switching model, interactive and shift models, ordered logit, difference-in-difference analysis, cross-sectional Fama-McBeth (1973) regressions, Poisson regression, logit regression, GLM, descriptive financial ratio analysis, independent t-test and analysis of variance.

## **2.12 RESEARCH GAPS**

Based on the empirical review, this dissertation identifies and fills the following research gaps:

**Gap 1:** On the effect of IFRS on the cost of debt capital and the cost of equity capital, it shows that all the studies are either done in Europe or Asia, with no single study conducted in Africa. This study, therefore, fills a significant gap in the literature by investigating firms' IFRS adoption effect on the cost of capital (cost of debt and cost of equity) in the Republic of South Africa, which is one of the biggest economies in Africa.

**Gap 2:** On the impact of IFRS on firm performance, it shows that none of the studies above investigates the impact of IFRS on firm performance in South Africa. This research contributes to knowledge by investigating the impact of IFRS on firm performance (Returns on Investment Capital), EBITDA Return on Total Assets), EBITDA Margin and Earnings per Share (EPS) in South Africa given that all the African studies have entirely focused on Nigeria.

**Gap 3:** On the impact of IFRS on macroeconomic indicators, it can be observed that all the studies focused on the impact of IFRS on FDI. However, this study fills a significant gap in the literature by investigating the impact of IFRS on economic growth (GDPG), interest rate (IR), and exchange rate (EX). From the literature, the researcher

considers this study as the first to examine IFRS adoption affect economic growth, interest rate, government borrowing, and exchange rate.

**Gap 4:** Also, to the best of the author's literature review, no original research has investigated the effect of IFRS adoption on the cost of debt capital, cost of equity capital, firm performance, and macroeconomic indicators all put together. This study, therefore, filled a significant gap in the literature by being the first single study to investigate the impact of IFRS on the cost of debt capital, cost of equity, corporate performance, and macroeconomic indicators altogether.

### **2.13 CONCLUSION**

This chapter successfully covered both theoretical and empirical studies on the impact of IFRS on the cost of debt capital, cost of equity capital, firm performance, and macroeconomic indicators and hence identified four significant research gaps that are filled by the study.

## **CHAPTER THREE: METHODOLOGY AND RESEARCH DESIGN**

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### **3.1 INTRODUCTION**

This chapter covers the source (s) of data employed by the study as well as the empirical estimation techniques and procedures used in attaining the objectives of the study. It also covers how the variables used in the dissertation are measured.

### **3.2 DATA SOURCE, VARIABLES, AND METHODS**

This section tackled the research design, sample selection, sources of data, variables, and statistical estimation techniques adopted to achieve the objectives of the dissertation.

### **3.3 RESEARCH DESIGN AND SAMPLE SELECTION**

The main goal of the dissertation is to estimate the effect of IFRS adoption on the cost of debt capital in South Africa. The dissertation adopts panel data because it is more appropriate in explaining the cause and effect relationship between variables and among different firms across industries and again recognizes both time-series and cross-sectional observations (Chen, 2008). Our initial sample consists of 65 JSE listed firms drawn from the extraction industries, specifically the agricultural, construction, manufacturing, and mining firms that have both common stock and debt in their capital make-up. We obtain the analyst following and information asymmetry financial data from archival databases of INET BFA/IRESS SA, Morningstar, and Anupedia, focusing on financial statements, management discussion, management forecasts, regulatory filings, and press releases. Data for the cost of debt sources from Economic discussion net supplemented with hand-collected. The macroeconomic factors are from the worldwide governance indicators, the global economy, federalreserve.org, and fred.stlouisfed.org. After eliminating observations with missing data, our final sample comprises 49 firms, representing 75.39% for the period 2001 to 2014. Our sample represents firms of economically listed firms in the Republic of South Africa in recent years. It makes our study relevant in the South African setting.

The sample firms are those companies that have consistently published annual reports and showed available information in both the pre and post-adoption periods. Also,

sample firms depict fiscal year of 12 months for each sample period and data available both before and after the adoption of IFRS. The sample defines in two phases, namely; pre- and post-adoption periods. However, the post-adoption period is further subdivided into an early and late IFRS adoption period to establish the actual period in which IFRS affects the cost of debt capital. The pre-adoption period covers 2001-2004. Early-post adoption covers 2006-2009 and late-post IFRS adoption covers 2011-2014 and has both equity and debt in their capital make-up. The researcher ignored the transition period of 2005 because the firms might have delayed in implementing the adoption (with four years interval). The exclusion of 2005 as an adoption transition year is consistent with Chua et al. (2012) and Zeghal et al. (2012).

The study employs each firm as its control variable as the adoption of IFRS in the Republic of South Africa is mandatory for all listed reporting entities. There are no other firms that use alternative accounting standards after the adoption for comparison. Therefore, using the same firms in standardizing the firm-year observations in both pre-adoption and the post-adoption periods make it possible to attribute any change observed in the firm's cost of debt to the adoption of IFRS. Firm-specific factors controlled by using the same requirements.

## **Data**

This dissertation sources data is covering forty- nine listed mining and manufacturing firms in South Africa that have consistently published annual reports for the 2001- 2014 period from INET BFA/IRESS SA, and Anupedia. Data for this research are collected over one year. The estimation is on agricultural, construction, manufacturing, and mining industries that prepare their financial statements based on IFRS and have both common stock and debt in their capital make-up. According to Papaioannou (2006), in consolidating financial statements, the conversion could be done using either at the end-of-the-period exchange rate or the average exchange rate for the period, depending on the accounting procedures affecting the parent company. Thus, while the statement of the comprehensive income usually translates at the average exchange rate over the period, statement of financial position exposures of foreign subsidiaries is mostly translated at the current exchange rate during consolidation. (Epstein and Jermakowicz, 2008) state different exchange rates to use in different accounts; The research uses the weighted-average exchange rate for revenues and expenses as well as changes to

retained earnings within the current reporting period and closing exchange rates for all assets and liabilities. The researcher translates all sampled companies with a foreign currency other than the South African Rand to the local Rand.

The study sourced the macroeconomic data from varied sources. Government borrowing data sources at Global Economy; Interest rate data sources from Fred.Stlouisfed.org; exchange rate data sourced from federalreserves.org; and GDP growth data from World Development Indicators (The Republic of South Africa).

The study screened all data collected for missing and outliers — the adopted interpolation method to take care of all missing data. Interpolation is where time-series at a higher frequency correct than what is available (Friedman, 1962). The method of interpolation applies to many studies such as Huang et al. (2009) and Carr and Wu (2009) for correcting missing data. This study displayed minimum and maximum observations for the data on each variable to identify outliers and corrected them. The techniques, some outliers were identified and corrected by re-typing the correct figures.

**Table 3.1: Sampled Companies and their respective Industry**

Listed Agricultural/Manufacturing/ Construction Companies		Listed Mining companies	
AECI	Datatec	African Rainbow Ltd	Netcare
African Oxygen Ltd	Distell	Anglo American Plc	Oceana
Allied Electronics	Grindrod	AngloGold Ashanti	Omnia
Argent	Illovo Sugar Ltd	Arcelor Mittal	Reunert
Aspen Pharmacare Holdings	Impala Platinum Holdings Ltd	Basil	Sentula
Assore	Metair	BHP Billiton Plc	Tongaat
Astral Food	Murray and Roberts Holdings Ltd	Drdgold	York timbers
Astrapak	Mustek	Group Five	
Aveng	NAMPAK	Growth Point	
AVI	PPC Limited	Harmony Gold Mining	
Barlo World	SABMiller	Hosken	
Beige	Sappi Ltd	Iliad	
Bidvest	Sasol Ltd	Jasco	
Crookes	Sovereign	Merafe	

**Table 3.1: Selected listed Companies**

**Source: JSE Website**

### **3.4 VARIABLES, MODELS, AND EMPIRICAL ESTIMATION TECHNIQUES**

#### **3.4.1 Variables of the Study**

The study used the following independent variables being IFRS (a dummy variable coded as 1 for IFRS period and 0 for a non-IFRS period), analyst following (AF), information asymmetry (IA), managerial opportunism (MO) and interacted them with IFRS adoption as the interest variables. Other regressions include macroeconomic factors such as exchange rate, interest rate, government borrowing, and economic growth and integrity. It stresses that variables such as; political stability, accountability, voice, and regulatory quality, the absence of violence, the rule of law, third-party assurance, control of corruption, but dropped government effectiveness due to the perceived presence of collinearity. Table 1 depicts comprehensive explanations of data definitions and sources for both dependent and independent variables. All the variables are in natural logarithms form. This dissertation uses eleven dependent variables, capital structure (cost of debt capital [CODC], cost of equity capital [COEC], market price per share [MPPS], equity returns [EQRS]); corporate performance (return on investment capital [ROIC], EBITDA Return on Total Assets [EBITDA ROTA], Earnings Before Interest and Taxes, Depreciation and Amortization Margin [EBITDA]), Earnings Per Share [EPS) and macroeconomic performance (Gross Domestic Product growth [GDPG], interest rate [IR] and exchange rate [EX]). Also, the study uses three Moderation variables (Information Environment) Managerial Opportunism (MO), Information Asymmetry (IA), and Analysts Following (AF).

##### **3.4.1.1 Main Independent Variable**

###### **IFRS**

IFRS adoption is the leading independent variable. It is a dummy variable, measured as 0 for the pre-adoption period (2001-2004) and 1 for the post-adoption period (2006-2014). The study further divided the post-adoption period into an early-post-adoption period (2006-2009) and late-post-adoption period (2011-2014). Since IFRS correlates with debt issues, the researcher expects a negative correlation with the debt ratio. More interestingly, test if the coefficient on information asymmetry is still statistically significant with the inclusion of IFRS in the regression.

### **3.4.1.2 Depended Variables (Capital Structure)**

#### **Cost of Debt Capital**

Data for the cost of debt (CODC) sources from Economic discussion net supplemented with hand-collected data. The dependent variable is a firm's cost of debt capital, defined as interest rates. It refers to the total cost paid by firms in raising debt capital. The measure of the cost of debt is the interest rate. Following Pittman and Fortin (2004) and Francis et al. (2005) Debt cost is the rate of interest paid with regards to the current loan and calculated as interest expense divided by the average of short- and long-term debt during the year.

#### **Cost of Equity Capital**

The definition of cost of equity capital is in many ways, and this has created disagreement in its measurement. The first definition states that the cost of equity is the rate of return needed by potential investors to supply the capital to a firm. The second definition states that the cost of equity is an adjusted discount rate to be applied by investors on the current stock price. Asset Pricing Model (CAPM) is a measurement tool for the cost of equity derived from the earlier definition. The model states that equity cost determinants are equity sensitivity to the market rate of risk-free, its expected rate of return, and expected equity returns.

#### **Equity/ Share returns**

Usually, equity returns denote the gains or losses on the stock in a precise timeframe. The returns may comprise capital gain or income generated relative to the shareholder's investment. In this thesis, equity returns mean the capital gain relative to the stocks a firm value in a given period (Dragomir, 2010).

#### **Market Price per Share**

A market price of common stock or per share is the number of money shareholders are willing to pay for a share. The share price rises and falls with investors' demand. The price determines how much a stock will cost an investor. It is also precious when associated with other information – to measure market value ratios to decide if shares are a good investment at the prevailing market price. All other information are handy picked from the annual financial reports released by listed firms is shown on the companies' websites. An associated data point is the firm's "market value," which is the



total value that shareholders invest in a firm on a particular period. In this study MPPS is determined the value by multiplying the market price per share,

### **3.4.1.3 Moderation Variables (Information Environment)**

To achieve more robust results of how extensive the IFRS adoption contributes to explain the corporate firm performance of JSE manufacturing and mining, we combine IFRS with moderating factors as managerial opportunism (MO), analyst following (AF), and information asymmetry (IA).

#### **Managerial opportunism**

Managerial opportunism is a situation where managers use internal corporate information for their benefit. For listed firms, managers use opportunism as they decide the sale of stocks. They are rewarded as part of their compensation when they perceive the market's value of the firm as higher than the estimated value. In private firms, managers ought to diversify the company or increase revenues at the expense of profitability to safeguard their jobs with better salaries. Managerial opportunism comprises exploiting opportunities by managers to their selfish interests. It may or may not be deceit; instead, it does embrace a proclivity regarding self-interest, which is evidenced by individual decisions. Managerial opportunism indicates the agent-principal misunderstanding with owners as principals and directors as agents. Managers' performance is to their best interest and not that of owners. Earnings management measured as discretionary accrual (i.e., residuals from total accrual) in natural logarithm. Refer to the table for the measurement.

**Information Asymmetry** in this dissertation, the Bid-Ask spread measurement that uses high and Low share prices as employed by Corwin and Schultz (2010). Refer to the table for the measurement.

#### **Analysts Following**

It refers to the professionals that use accounting information for potential investment. It ranges from one to a hundred, as reported in the INET BFA database.

#### **3.4.1.4 Depended Variables (Corporate Performance)**

The study employs three proxies to evaluate the corporate performance (FP) of the manufacturing and mining companies of the JSE. The proxies are, return on capital investment (ROIC), EBITDA return on Asset (EBITDA ROTA), earnings per share (EPS), and EBITDA margin (EBITDA) value ratio (Baker and Martin, 2011; Seifert et al., 2003). Among the justifications put forward for selecting these variables include that of previous scholars identify them as drivers of performance, hence their inclusion as dependent variables (Shen and Rin, 2012; Nickell et al., 1997). Earnings per share (EPS) and ROIC variables are identified as market measures (Hillman and Keim, 2001) as they are adequate to ascertain the long-term value of the sampled companies' performances. These variables reflect confidence and trust that shareholders are assured of and serve as dependent variables.

#### **EBITDA MARGIN/ OPERATING PROFIT MARGIN**

EBITDA margin measures a firm's operating performance. Importantly, it is a means to appraise the financial performance of firms without considering the financing and accounting decisions within a particular tax environment. EBITDA is measured by adding back the non-cash expenses such as; depreciation and amortization to a firm's operating profit. Instead, EBITDA can also be calculated by taking a company's net profit and adding back depreciation, interest, taxes, and amortization. There are different measures to EBITDA used by analysts and investors working to ascertain a firm's profitability. The formula for determining operating profitability is a simple one. EBITDA lagged by total income the same as the operating profitability.

#### **EBITDA RETURN ON ASSETS (PROFITABILITY)**

EBITDA Return on Assets calculates how a firm is efficiently generating EBITDA. It shows that capital structure, different tax rates, and several CAPEX expenditures would not influence firms' comparison. EBITDA Return on Assets has restricted significance for most shareholders. Measurement for EBITDA Return on Assets =  $\text{EBITDA} / \text{Total Assets}$ . Where,  $\text{EBITDA} = \text{Net Profit} + \text{Interest} + \text{Taxes} + \text{Depreciation and Amortization}$ . Profitability represents as profit before interest, taxes, and depreciation divided by total assets and calculated in percentage terms as EBITDA.

### **Earnings per Share**

Measurement of EPS envisioned to signify the profit earned (or losses suffered) by one ordinary stock during a financial period, and also offer a benchmark for disclosed performance for the year. The EPS is generally used by financial statements users as part of the price-earnings ratio, which is measured by dividing the price of an ordinary stock by its EPS value. This measurement is a yardstick of the number of times (years) that earnings may have to be recurrent as equal to the firm's stock price. Analysts and other users of the financial report also assume that EPS calculation forms part of the dividend cover measurement. An indication of the number of times the earnings cover the sharing to the equity owners.  $EPS = \text{Turnover (TUROV)} / \text{total share outstanding (T.SHS)}$  in natural logarithm.

### **Return on Invested Capital (ROIC)**

Return on invested capital (ROIC) is a measurement employed to examine a firm's efficiency based on capital allocation and ensuring profitable investments to value creation for investors. The ROIC ratio reports on how a firm is using its funds to generate returns (Kenton 2019).  $EBIT / \text{investment capital}$  Where investment capital = total debt + total equity (Damodaran, 2007).

#### **3.4.1.5 Depended Variables (Economic Performance)**

Because macroeconomic factors within the IFRS adoption influence firm performance, we include them in the estimation model as: and gross domestic product growth (GDPW), an exchange rate (ER), and interest rate (IR). The broad range of measures used in this study is defined and briefly explained in Table 2.

#### **3.4.1.6 Control variables**

Following previous literature, we include four control variables to avoid biasing results. Control variables included are leverage (LEV), liquidity (LQ), tangibility (TANG), and Integrity of the legal system (INTG).

#### **Leverage (LEV)**

Undoubtedly, there is a high incentive for leveraged firms to practice into earnings management (Watts and Zimmerman, 1986). The leverage mechanism brings pressure to bear on managers to create free cash flows to pay interest and principal of debts.

However, IFRS adoption enhances and improves better disclosure to give reasonable assurance of quality accounting information for decision making. Combined effects of accounting quality of control variables account for heterogeneity in characteristics across firms included in the study. The quality of control variables could vary the appearance between the pre-IFRS and post-IFRS periods and thereby influence results drawn from the model estimation employed. A vital governance mechanism includes the management of debt (Shleifer and Vishny, 1997). Due to the interest and principal payments on debts, managers are responsible for generating cash flow to meet them. It, therefore, calls for credible financial reporting as a manner to monitor debt arrangements. To meet such commitments, managers create an incentive to increase earnings. We use the ratio of total debt divided by total assets (Zamri et al., 2013) to calculate leverage (LEV) (Mahoney et al., 2008). Lower leverage level expects under IFRS adoption as full disclosure of the information is mandatory. Therefore, corporate value would be higher (Tu, 2012; Daske et al., 2008).

### **Liquidity (LQ)**

The liquidity of a firm is one of the indicators of determining the optimal level of debt. It shows how companies could meet their financial obligations in the short-term when they fall due (Fabozzi et al., 2010). Liquidity heightens if there are fewer costs to convert the company's assets into cash. Higher firm value is reached under IFRS adoption when the adoption limits managerial accounting manipulations but can maintain cash flow for satisfying short-term commitments (Gitman, 2004). The study calculates Liquidity as a Current asset to a current liability. The study expects IFRS adopters' firm with the improved large volume of liquidity to achieve higher growth opportunities to be more likely to attain a firm-specific commitment with positive improved accounting quality. The inclusion of control variables expected to correlate with the cost of equity capital estimation, cost of debt capital, performance measures, and macroeconomic factors as their exclusion from the tests may bias the coefficients to be estimated. The study measures Liquidity as a Current asset to current liability (Baker and Martin, 2011).

### **Asset tangibility (TANG)**

Akintoye (2009) stipulates that keep significant investments tangible assets of firms associates with smaller costs of financial distress, which impact the optimum

performance. It enhances and generates more revenue from sales. The study measures Tangibility as the Net Property, Plant, and Equipment divided by Total Assets and in percentages form. IFRS adoption shows a positive relationship with asset tangibility and firms' value under IFRS adoption. The research expects a country's macroeconomic factors to influence FDI inflows. It employs to generate earnings to improve the security of income of the firms; positive improved earnings assure sound application of IFRS in financial reporting.

### **The integrity of the legal system (INTG)**

South Africa relies on qualitative judgement stated by the risk rating agency, ranging from 0 (lowest) to 10 (highest).

**Table 3.2: Type and source of measurement/ descriptions of variables**

Type of Variables	Specific Variables	Formula/ description	Source
Dependent variables (Capital structure)	Cost of Equity Capital (COEC)	=Market price per share (MPPS)/ Earnings per share (EPS) where; MPPS=share price (MPS)/ total share outstanding (T.SHS) in natural logarithm EPS=turnover (TUROV)/ total share outstanding (T.SHS) in natural logarithm	Walter A. Morton (1970). hwww.economicdiscussion.net
	Cost of Debt Capital (COBC)	= [1-tax rate] *[(interest expense/[1-bearing debt])]	Pittmana and Fortin, (2004); Francis et al., (2005); Gul et al., (2013)
	Share Price (MPS)	Handy collection from JSE	The INET BFA /IRESS SA Database
	Equity/Share Returns (EqR)	Ratio of current share price to previous share price	Murray et al. (2006) Dragomir (2010)
Dependent variables (corporate performance)	EBITDA Return on Assets (PROFITABILITY)	EBITDA Return on Assets = EBITDA / Total Assets	Johnson, and Tatiana Churyk, (2011)
	Earnings Per Share Ln (EPS)	EPS=Turnover (TUROV)/ total share outstanding (T.SHS) in natural logarithm	Economicdiscussion.net

	Return on investment capital (ROIC)	EBIT/investment capital Where investment capital=total debt + total equity	Damodaran (2007)
	EBITDA margin	EBITDA/Net sales	Rahman (2016)
Dependent Variavles (macroeconomic performance)	GDP growth (GDPG)	Yearly growth of GDP	Not computed
	Exchange rate (EX)	RAN to Dollar rate at 31 <sup>st</sup> December	Not computed
	Interest rate (IR)	Central bank rate to commercial banks (base rate).	Not computed
Moderating variables	Managerial Opportunism (MO)	Earnings management measured as discretionary accrual (i.e. residuals from total accrual) in natural logarithm formula: $DA = TA - (\beta_0 + \beta_{1t} \frac{1}{A_{i,t-1}} + \beta_{2t} \frac{\Delta Rev_{i,t} - \Delta Rec_{i,t}}{A_{i,t-1}} + \beta_{3t} \frac{PPE_{i,t}}{A_{i,t-1}})$ Where; DA=discretionary accruals TA= total accrual PPE= plant, property and equipment A <sub>i, t-1</sub> =total assets in the beginning of the year Rev=sales Rec= receivable accounts	Modified Jones Model
	Information Asymmetry (IA)	Bid-Ask spread using high and Low share prices	Corwin and Schultz (2012)
	Analyst Following (AF)	Numbers (1- 100)	The INET BFA Database
Main Independent Variable	IFRS	Dummy: Pre-adoption coded as 0 and post-adoption coded as 1	-
Control Variables	Leverage (LEV)	Total debt/total asset	Averkamp (2004) Dragomir (2010)
	Liquidity (LQ)	Current asset to current liability	Breuer et al. (2012)/ Baker and Martin (2011)
	Tangibility (TANG)	Ratio of Plant, properties and equipment to total asset	Badertscher et al. (2015, 2018)
	Integrity of legal system (INTG)	Qualitative judgment by South African risk rating agency; ranging from 0 (lowest) to 10 (highest)	Not computed

### 3.4.2 Sampling Method

This dissertation used secondary data obtained from INET BFA/IRESS SA, focusing on audited annual financial statements of listed companies on the Johannesburg Stock Exchange. The study used a convenience sampling technique to sample the listed companies. The criteria for selecting the companies include, 1) the company should have debt as part of its capital make-up, and 2) the company should have a consistent published audited financial statement. Based on the two criteria, the study was delimited to manufacturing and mining companies, as shown in Appendix 1. The service companies (banks) listed on the Johannesburg Stock Exchange had no debt in the capital make-up; hence, they do not form part of the study sample. Firms in other sectors (for example, construction and agro-processing) of the economy had inconsistent published audited financial statements; thus, based on set criterion 2, they were not included in this study. Based on the inconsistency of published audited financial statements, it was difficult, if not impossible, to gather firm-specific data on them. This study, based on data availability, gathered data from 2001-2014. However, the time (2001-2014) stratified into two based on IFRS adoption, namely the pre-adoption period (2001-2004) and the post-adoption period (2006-2014). However, the post-adoption period, further stratified into the early period of IFRS adoption (2006-2009) and later-period of IFRS adoption (2011-2014) to establish if there is an IFRS adoption impact on the outcome variables. The period 2005 is the transition period and dropped in 2010 because the dissertation wants the same period (with four years interval).

### 3.4.3 Models of the Dissertation

The study based on fixed or random or POLS effect models, specified models, are as follows;

#### 3.4.3.1 Interaction effect of IFRS adoption and accounting information environment on Capital structure of firms.

$$\begin{aligned}
 CapS_{it} = & \alpha_0 + \alpha_1 TANG_{it} + \alpha_2 LNLQ_{it} + \alpha_3 LEV_{it} + \alpha_4 LNINTG_{it} + \alpha_5 IA_{it} \\
 & + \alpha_6 LNAF_{it} + \alpha_7 MO_{it} + \alpha_8 IFRS * IA_{i,t} + \alpha_9 IFRS * AF_{it} \\
 & + \alpha_{10} IFRS * MO_{i,t} + \alpha_{11} LNIR_{it} + \alpha_{12} GDPG_{it} + \alpha_{13} IFRS_{it} + f_i \\
 & + t_i + \varepsilon_{it} \dots \dots \dots EQN 1
 \end{aligned}$$

The capital structure indicators considered in this study are; the cost of debt capital, cost of equity capital, market price per share price, and equity returns, and this study estimated the equation one on each.

### 3.4.3.2 Interaction effect of IFRS adoption and accounting information environment on Corporate Performance

$$\begin{aligned}
 CoP_{it} = & \alpha_0 + \alpha_1 TANG_{it} + \alpha_2 LNLQ_{it} + \alpha_3 LEV_{it} + \alpha_4 LNINTG_{it} + \alpha_5 IA_{it} \\
 & + \alpha_6 LNAF_{it} + \alpha_7 MO_{it} + \alpha_8 IFRS * IA_{i,t} + \alpha_9 IFRS * AF_{it} \\
 & + \alpha_{10} IFRS * MO_{i,t} + \alpha_{11} LNIR_{it} + \alpha_{12} GDPG_{it} + \alpha_{13} IFRS_{it} + f_i \\
 & + t_i + \varepsilon_{it} \dots \dots \dots EQN 2
 \end{aligned}$$

The study estimated equation 2 on each of the corporate performance indicators (profitability, operations margin, earnings per share and return on investment capital).

### 3.4.3.3 Interaction effect of IFRS adoption and accounting information environment on Macroeconomic Performance

$$\begin{aligned}
 MacP_{it} = & \alpha_0 + \alpha_1 TANG_{it} + \alpha_2 LQ_{it} + \alpha_3 LEV_{it} + \alpha_4 IA_{it} + \alpha_5 AF_{it} + \alpha_6 MO_{it} \\
 & + \alpha_7 IFRS * IA_{i,t} + \alpha_8 IFRS * AF_{it} + \alpha_9 IFRS * MO_{i,t} + \alpha_{10} IFRS_{it} \\
 & + f_i + t_i + \varepsilon_{it} \dots \dots \dots EQN 3
 \end{aligned}$$

The study employed three macroeconomic indicators (GDP growth, interest rate, and exchange rate), and equation three estimates on each.

From equations 1, 2, and 3,  $f_i$  is a fixed firm effect;  $t_i$  is fixed year effect, and  $\varepsilon_{i,t}$  is the error term.  $CapSit$ ,  $CoPit$ , and  $MacPit$  are the capital structure of firm  $i$  and year  $t$ , cooperate performance of firm  $i$  and year  $t$ , and macroeconomic performance of firm  $I$  and year  $t$ , respectively. Other variables in the models are as defined in Table 1. LN indicated logarithms, and it applies to variables without negative values or zeros. Thus, the logarithms of cost of debt capital, earnings per share, exchange rate, and interest rate among other variables were taken because they had only positive values. It stresses that the models involving all the sub-sample periods, IFRS, as well as its interactions with other variables, are omitted because either they are entirely non-IFRS periods or wholly IFRS periods, hence measuring IFRS impossible. Finally, in all models of the 2006-2009 sub-sample periods, integrity is omitted due to co linearity.



### **3.5 EMPIRICAL ESTIMATION TECHNIQUES**

In each 1, 2, and 3, data takes different forms based on how it treats IFRS adoption. Firstly, the study treats IFRS adoption as a dummy variable (pre-adoption period and post-adoption period), and as such full data sample (2001-2014; excluding 2005) was used. Secondly, the segregation of IFRS adoption into three periods; pre-adoption sample data (2001-2014), early-post IFRS adoption sample data (2006-2010), and late-post IFRS adoption period (2011-2014) and in each case, equation 1, 2 and 3 estimations. The study applies random effects (RE) and the fixed effects (FE) techniques depending on which one of them is the most suitable. The study used the Breusch and Pagan Lagrangian multiplier test to choose between pooled ordinary least square (POLS) regression and random effects. When the random effect is chosen, the study used the Test of over identifying restrictions (Sargan-Hansen statistic), which is well accepted in the literature, according to Schaffer (2009), to choose between the random effects (RE) and the fixed effects (FE) model.

The study did not use the Hausman test to compare the fixed effects model and the random-effects model due to its inability to handle STATA regression equations that automatically control for heteroskedasticity by reporting robust standard errors. However, if the study chooses the pooled ordinary least squares regression ahead of the random effects, the study used the F-test to choose between the fixed effects model and the POLS. Comparing the POLS to FE model results, the study first runs the FE model without the robust standard error option to determine the F-test response. Hence, if the test applies the FE model ahead of the POLS, then a re-run of the FE model using the robust standard error. Thus, all the standard errors reported in this study are robust standard errors and hence eliminating challenges of possible heteroskedasticity. It is worth noting that since some variables have some negative values, creating their natural logs lead to the generation of missing values and hence may lead to differences in the number of observations. It must further state all the analyses in this study with Stata 11 and 14.

### **3.6 CONCLUSION**

This chapter successfully covers the source (s) of data employed by this dissertation as well as the empirical estimation techniques and procedures used in attaining the objectives of the study. It also covers how the Dependent variables, Independent

variables, Firm control variables, Macroeconomic Indicators used in the dissertation are measured. This study, therefore, uses a sample of forty-nine South African listed mining and manufacturing firms that have more debt-equity in their capital makeup and consistently publish their financial reports from 2001 to 2014. Empirical Models test for the impact of IFRS adoption on the cost of capital, cost of debt, share price and equity returns, firms' performance, and macroeconomic indicators. This dissertation covers four periods, namely, 2001-2004 (pre-adoption), 2006-2009 (early- adoption), 2011- 2014 (late- adoption) and 2001- 2014 (pooled bigger model excluding the adoption year (2005) to ascertain the real impact before and after being represented by a dummy variable 0 and 1 respectively. We specify the following regression model: the POLS, fixed effect and random effect regression technique are employed based on the Breusch and Pagan Lagrangian multiplier test, the Test of overidentifying restrictions (Sargan-Hansen statistic) and the F-test from a panel data.

## **CHAPTER FOUR: ANALYSIS AND DISCUSSION OF RESULTS**

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### **4.1 INTRODUCTION**

This section dealt with the analysis and discussion of results or findings of the study on the impact of IFRS and control as well as moderating variables such as managerial opportunism, analyst following, information asymmetry, leverage, liquidity, integrity, exchange rate. On the cost of equity capital, cost of debt capital, share price, and equity returns of listed firms in South Africa. Also, the impact of IFRS, as well as control and moderating variables on firms' performance (profitability, return on investment capital, operations margin, and earnings per share) and macroeconomic indicators (economic growth, interest rate, and exchange rate), were studied. The study considers four different periods, i.e., 1. 2001-2004 represents the pre-IFRS adoption, 2. 2006-2009 expresses the early IFRS adoption, 3. 2011-2014 represents the late-IFRS adoption, and 4. 2001-2014 excluding 2005 which is a bigger model with IFRS as a dummy variable. Moreover, its interaction with some variables and their impact on the dependent variables form the basis of this thesis. Therefore, for each of these periods, different regressions were run for each dependent variable separately. However, before the multiple regression analyses with the pooled ordinary least square, fixed effects, and random-effects models, descriptive studies of some variables were done.

### **4.2 DESCRIPTIVE STATISTICS**

This section covered descriptive statistics of variables used in the study from 2001-2014, excluding 2005. It must further show that the actual figures or percentages were used for the descriptive statistics and not the natural logs of variables, as mostly seen in the regression results.

**Table 4.1: Descriptive Statistics of Some Variables**

Variable	Obs	Mean	Std.Dev.	Min	Max
TANG	685	.348	.218	-.176	1.106
LQ	685	1.547	.899	.085	11.833
LEV	685	.197	.163	0	1.03
IA	637	.336	.443	0	8.56
AF	685	5.079	3.267	2	12
MO	683	.406	1.178	-.022	19.011
IFRS	686	.643	.48	0	1
INTG	686	3.919	.507	3.3	5
IR	637	7.886	2.283	4.94	12.73
EX	637	8.23	1.668	5.645	24.811
GDPG	686	3.086	1.697	-1.538	5.585
COEC	684	.237	.408	0	3.25
CODC	683	.142	.333	.006	4.413
MPPS	684	.018	.05	0	.642
EQRS	686	.184	.491	-.88	3.65
Profitability	685	.144	.161	-2.337	1.553
ROIC	685	.152	.337	-4.975	3.105
EPS	684	11.074	45.841	0	435.528
EBITDA	685	4.103	11.389	-8.334	102.026

From Table 4.1 it can be seen that tangibility, liquidity, leverage, information asymmetry, analyst following, managerial opportunism, integrity, interest rate, exchange rate, economic growth, cost of equity capital, cost of debt capital, market price per share, equity returns, profitability, return on investment capital, earnings per share and operations margin had averages of .348, 1.547, .197, .336, 5.079, .406, 3.919, 7.886, 8.23, 3.086, .237, .142, .018, .184, .144, .152, 11.074 and 4.103 respectively.

### 4.3 CORRELATION ANALYSIS

The correlation analysis, as shown in Table 2, was conducted to investigate the direction and strength of the relationship between the variables used in the study. Therefore, a negative sign implies that the variables moved in opposite directions (negatively correlated), and a positive sign means the variables moved in the same direction (positively correlated). Also, the closer the correlation coefficient is to 1, the higher the strength of association, and the farther the correlation coefficient is to 1, the weaker the strength of association. Therefore, the same variables would be perfectly correlated

with a coefficient of 1 as seen from the results. Regarding the correlation between different variables, only the correlation between exchange rate and integrity (-0.6653), the correlation between bankruptcy and interest rate (0.8358), and the correlation between bankruptcy and third-party assurance (-0.7090) were relatively stronger; negatively, positively and negatively respectively. However, generally, the strengths of the association between the remaining variables were weak.

**Table 4.2: Matrix of correlations**

Table 4.2 showed the correlation matrix of the independent variables used by the study. Generally, it can be said that the extent of association between the variables was low, which indicated less possibility of multicollinearity.

**Table 4.2: Matrix of correlations**

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
(1) TANG	1.000													
(2) LNLQ	-0.110	1.000												
(3) LEV	0.366	-0.530	1.000											
(4) LNINTG	0.003	0.008	0.010	1.000										
(5) IA	-0.049	-0.028	0.001	-0.052	1.000									
(6) LNAF	0.034	-0.009	-0.050	0.075	-0.082	1.000								
(7) MO	-0.016	0.025	0.031	0.025	-0.016	0.034	1.000							
(8) IFRSIA	-0.030	0.028	0.015	-0.037	0.920	-0.096	-0.018	1.000						
(9) IFRSAF	0.007	0.051	-0.012	0.081	0.003	0.597	0.021	0.172	1.000					
(10) IFRSMO	-0.039	0.073	0.027	0.036	0.006	0.016	0.927	0.070	0.171	1.000				
(11) LNIR	-0.033	-0.124	0.012	0.133	-0.099	0.167	0.021	-0.244	-0.272	-0.105	1.000			
(12) LNEX	-0.021	0.033	0.012	-0.704	0.072	-0.139	-0.051	0.086	-0.055	-0.034	-0.026	1.000		
(13) GDPG	-0.013	-0.077	-0.044	0.131	-0.067	0.155	0.135	-0.113	-0.015	0.091	0.223	-0.372	1.000	
(14) IFRS	0.024	0.090	0.046	0.068	0.111	-0.061	0.005	0.375	0.637	0.241	-0.557	0.025	-0.184	1.000

### 4.3 REGRESSION RESULTS

This section covered the regression results of the study by employing either the fixed effects, the random effects, or the pooled ordinary least square estimator depending on which of these regression techniques was the most suitable, as can be seen below.

**Table 4.3: The Impact of IFRS on Capital Structure of Listed Firms in South Africa (2001-2014 excluding 2005)**

	(FE) COEC	(FE) LNCODC	(FE) MPPS	(POLS) EQRS
TANG	-0.522 (0.339)	0.597* (0.338)	-0.0110 (0.0118)	0.0742 (0.0745)
LNLQ	-0.103* (0.0607)	0.117 (0.102)	-0.00443 (0.00483)	-0.0308 (0.0428)
LEV	-0.433 (0.343)	-2.218*** (0.550)	-0.0418 (0.0272)	-0.275* (0.149)
LNINTG	-0.0576 (0.0711)	0.495*** (0.176)	-0.000505 (0.00454)	-0.319** (0.149)
IA	0.156 (0.105)	-0.0338 (0.253)	0.0268 (0.0215)	-0.171 (0.175)
LNAF	-0.0266 (0.0312)	0.0734 (0.0553)	-0.00490 (0.00615)	0.0351 (0.0548)
MO	-0.0147 (0.0533)	0.268 (0.176)	0.0126 (0.00993)	0.00347 (0.116)
IFRSIA	-0.139 (0.109)	0.0262 (0.252)	-0.0248 (0.0238)	0.173 (0.179)
IFRSAF	0.0105 (0.00814)	-0.0176 (0.0177)	0.000501 (0.00104)	-0.00326 (0.0122)
IFRSMO	0.00784 (0.0541)	-0.300 (0.183)	-0.0108 (0.00818)	0.0754 (0.112)
LNIR	0.0769* (0.0386)	0.255** (0.118)	0.00862 (0.00669)	-0.0343 (0.105)
GDPG	0.00972** (0.00403)	-0.0434** (0.0173)	-0.0000631 (0.00107)	0.0795*** (0.0119)
IFRS	-0.0345 (0.0860)	0.0240 (0.142)	0.0202* (0.0118)	-0.191* (0.0990)
Constant	0.444* (0.256)	-3.493*** (0.414)	0.00247 (0.0127)	0.595** (0.272)
<i>N</i>	635	636	635	636
No. of firms	49	49	49	49
Overall R <sup>2</sup>	0.000147	0.123	0.00448	
R <sup>2</sup>				0.133
F	2.063**	5.595***	1.865*	12.54***

Cluster robust standard errors in parentheses

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Concerning all the models in this study, as stated in chapter three, the study first used the Breusch and Pagan Lagrangian multiplier test to choose whether it is the pooled ordinary least square (POLS) regression that is the best or the random effects. If it is the random effects, the study further used the Test of overidentifying restrictions (Sargan-Hansen statistic) to choose between the random effects and the fixed effects estimator. However, if it chooses the pooled ordinary least squares regression ahead of the random effects, the study used the F-test to choose between the fixed effects estimator and the POLS. To heteroskedasticity and autocorrelation. The study checks with the standard errors reported as well as cluster robust standard errors.

In Table 4.3, regarding the cost of equity capital model for the 2001-2014 period excluding 2005 (since it was the adoption year), the tests chose the fixed effects model to be the most appropriate. From the results, liquidity had a coefficient of -0.103, which was statistically significant at 10%. Thus, a unit increase in liquidity significantly led to a 0.103 unit fall in the cost of equity capital. It means that liquidity shows a negative impact on the cost of equity capital. Also, the interest rate had a positive coefficient of 0.0769, which was statistically significant at 10%, implying that the interest rate had a positive impact on the cost of equity capital. Hence, a unit rise in interest rate significantly increased the cost of equity capital by 0.0769 units. Also, Gross domestic product growth had a statistically significant positive impact (0.00972\*\*) on the cost of equity capital. It implies that when gross domestic product growth increases by one unit, it resulted in an increment in the cost of equity capital by 0.0097 units.

However, IFRS, as well as its interaction with other variables (information asymmetry, analyst following, and managerial opportunism), had no statistically significant impact on the cost of equity capital. The result is similar to the findings of Gatsios et al. (2016), who found that IFRS did not reduce the cost of equity capital of open capital companies in Brazil. Also, Daske (2014) did not record lower expected cost of equity capital for firms who adopted the IAS/IFRS and Patro and Gupta (2014) found IFRS to have had an insignificant impact on the cost of equity capital of Chinese and Israeli firms. However, the above findings are contrary to the findings of Castillo-Merino et al. (2014) who found IFRS to have had a negative significant impact on the cost of equity capital of Spanish listed firms, and Houqe et al. (2015) who found a negative significant impact of IFRS on the cost of equity capital.



Regarding the cost of debt capital model, the tests found the fixed effect model to be the best. The results in Table 4.3 show that tangibility had a significant positive effect on the cost of debt capital. Specifically, a unit rise in tangibility shows an increase in the cost of debt capital by 0.597 units at a 10% significant level. Also, leverage had a negative coefficient (-2.218) that was significant at 1%. Thus, a unit increase in leverage decreases the cost of debt capital by 2.218 units. This result is similar to the finding of Choi and Lee (2015), who found leverage to have had a significant negative impact on the cost of debt. Further, integrity shows an increase in the cost of debt capital by 0.495 units at a 1% level of significance.

From Table 4.3, IFRS, as well as its interactions with other variables (information asymmetry, analyst following, and managerial opportunism), had no statistically significant effects on the cost of debt capital. The result on IFRS is similar to those of Moscariello et al. (2014) who found IFRS to have no impact on the cost of debt in the UK as well as Pizzo et al. (2009) who found that mandatory IFRS adoption did not have any impact on the cost of debt of either Italy or the UK. However, the result is contrary to that of Florou and Kosi (2015), who found mandatory IFRS adoption to decrease the cost of public debt as well as Choi and Lee (2015), who revealed IFRS non-audit consulting services to reduce the cost of debt (interest rate). Notwithstanding, the interest rate had a positive coefficient of 0.255, which was significant at 5%, implying that interest rate had a positive impact on the cost of debt capital, and hence a unit rise in interest rate increased the cost of debt capital by 0.255 units. Also, the negative coefficient (-0.0434) of economic growth that was significant at five percent implied that when GDP growth increases by one unit, it led to a fall in the cost of debt capital by 0.0434units.

In the market price per share model, the test conducted showed the fixed effect model to be the best, and hence the study settled on that. However, in the market per share model, all the variables were statistically insignificant except IFRS. Specifically, IFRS had a positive coefficient of 0.0202 at a 10% statistical significance level. Thus, when IFRS increases by a unit, the market price per share would increase by 0.0202 units; hence, IFRS adoption had a positive statically significant impact on the market price per share.

On the equity returns model, the tests showed that the POLS were the best, so the study chose that. From the model, leverage had a negative coefficient of -0.275, which was significant at 10%. Thus, a unit increase in leverage led to 0.275 units fall in equity returns. Also, integrity had a negative coefficient of -0.319 that was significant at 5%. The implication is that a unit increase in integrity led to 0.319 units fall in equity returns. Further, gross domestic product growth had a positive coefficient of 0.0795, which was significant at 1%. Thus, when gross domestic product growth increases by one unit, it resulted in 0.0795 units rise in equity returns. The results in Table 3 show that IFRS had a significant negative impact on equity returns. Specifically, it shows that equity returns fall by 0.191 units due to IFRS adoption, and this was statistically significant at 10%.

These findings are consistent with agency theory, signaling theory, and stakeholder theory. For example, agency theory posits that as firms adopt IFRS, agency problems will reduce, and the interests of shareholders are legitimate. It suggests that the value for shareholders will increase, thus increase in market price per share. From signaling theory, adopting IFRS is a signal to the capital market and industry players that companies are willing to disclose the relevant information based on more preventive accounting principles. It suggests an increase in investors for firms due to the positive image created by IFRS adoption. As the number of investors increases, demand for a share of the company increases, thereby increasing the market price per share while the return on equity decreases.

From agency and signaling theories cost of debt capital and cost of equity capital are expected to decrease. However, these were not the case in this study. The result may be as a result of the similarities between the SA GAAP and IFRS. IFRS is similar to SA GAAP, such that the introduction of IFRS in SA was smooth with little or no problem, unlike other countries. This similarity possibly explains why SA is the first African country to adopt IFRS.

The accounting information environment in SA is good with high analyst following, low managerial opportunism, and information asymmetry due to stakeholders' protection. However, this environment could not complement IFRS adoption to influence the capital structure of the sampled firms.

**Table 4.4: Determinants of Capital Structure of Listed Firms in South Africa during the Pre-IFRS period (2001-2004), Early-IFRS period (2006-2009) and Late-IFRS period (2011-2014)**

	Pre-IFRS Adoption period (2001-2004)				Early-IFRS Adoption Period (2006-2009)				Late-IFRS Adoption Period (2011-2014)			
	(FE)	(FE)	(FE)	(POLS)	(FE)	(RE)	(FE)	(POLS)	(FE)	(FE)	(FE)	(FE)
	COEC	LNCODC	MPPS	EQRS	COEC	LNCODC	MPPS	EQRS	COEC	LNCODC	MPPS	EQRS
TANG	-0.422 (0.358)	-0.540 (1.471)	-0.0221 (0.0210)	0.265 (0.160)	0.0710 (0.153)	-0.136 (0.566)	-0.0457 (0.0802)	0.359* (0.202)	-0.221 (0.342)	1.608* (0.805)	-0.0660 (0.0513)	-0.0535 (0.327)
LNLQ	0.0168 (0.0426)	0.261* (0.145)	0.00262* (0.00143)	0.0161 (0.107)	0.0194 (0.0304)	0.0860 (0.136)	-0.0252 (0.0266)	-0.102 (0.0769)	-0.0588 (0.0625)	0.210 (0.318)	0.00235 (0.00403)	-0.000170 (0.113)
LEV	-0.0409 (0.146)	-3.908*** (1.082)	-0.00165 (0.00727)	-0.608** (0.300)	-0.0711 (0.161)	-1.799** (0.858)	-0.0994 (0.0737)	-0.672** (0.299)	-0.0893 (0.118)	-2.201** (1.071)	0.00840 (0.0166)	-0.178 (0.256)
LNINTG	-0.143 (0.0884)	0.343 (0.257)	0.000879 (0.00274)	-0.556** (0.225)					0.0122 (0.0640)	0.0988 (0.478)	0.00289 (0.00610)	0.161 (0.232)
IA	0.00859 (0.112)	0.0501 (0.336)	0.00351 (0.00429)	-0.138 (0.181)	0.00117 (0.0153)	-0.0141 (0.0601)	-0.00702 (0.00724)	0.0516 (0.0419)	0.0141** (0.00639)	-0.0190 (0.0311)	0.00411*** (0.000557)	0.0510*** (0.0134)
LNAF	0.00861 (0.0248)	0.0427 (0.0697)	-0.000532 (0.00103)	0.0251 (0.0580)	-0.00746 (0.00511)	-0.0506* (0.0297)	0.00507 (0.00527)	0.0744*** (0.0262)	0.00844 (0.0137)	-0.0516 (0.104)	0.000511 (0.00150)	0.00787 (0.0264)
MO	0.0275 (0.0339)	0.362** (0.170)	-0.000183 (0.00131)	0.00990 (0.120)	-0.0238 (0.0719)	-0.0634 (0.208)	0.0154 (0.0207)	-0.706*** (0.189)	0.0168 (0.0229)	0.0786 (0.179)	-0.000605 (0.00198)	-0.0225 (0.0791)
LNIR	0.0846 (0.102)	0.365* (0.214)	0.00576 (0.00372)	0.0160 (0.302)	0.0133*** (0.00378)	-0.0356* (0.0185)	-0.00107 (0.00211)	0.0809*** (0.0113)	-0.0363 (0.160)	0.763 (0.915)	0.00109 (0.0112)	-0.747* (0.381)
GDPG	0.00978 (0.0206)	-0.108 (0.0731)	0.00141 (0.000932)	0.0940* (0.0533)	0.0133*** (0.00378)	-0.0356* (0.0185)	-0.00107 (0.00211)	0.0809*** (0.0113)	0.00152 (0.0107)	0.0548 (0.0811)	-0.00195 (0.00144)	-0.0750* (0.0377)
Constant	0.377 (0.285)	-2.658** (1.011)	0.000831 (0.0120)	0.741 (0.791)	0.255 (0.188)	-1.894*** (0.542)	0.0502 (0.0409)	1.396*** (0.406)	0.329 (0.212)	-4.423*** (1.393)	0.0380* (0.0212)	1.326* (0.676)
N	195	195	195	195	195	196	195	196	196	196	196	196
No. of firms	49	49	49	49	49	49	49	49	49	49	49	49
Overall R <sup>2</sup>	0.00537	0.0908	0.0207		0.0122	0.178	0.00453		0.00704	0.0925	0.000643	0.0252
R <sup>2</sup>				0.0660				0.295				
F	2.338**	2.420**	0.995	2.379**	2.355**	19.76***	1.173	15.03***	2.396**	1.619	51.74***	2.535**

Cluster robust standard errors in parentheses

\* p < 0.1, \*\* p < 0.05, \*\*\* p < 0.01

In the pre-IFRS adoption period (2001-2004), the tests conducted showed the fixed effects model to be the most suitable for the cost of equity capital, cost of debt capital, and market price per share models with the POLS, however, being the most suitable for the equity returns.

Therefore, in the pre-IFRS adoption period (2001-2004) in Table 4.4, it can be seen in the cost of equity capital model, that, all the variables were statistically insignificant. However, regarding the cost of debt capital model, the coefficients of 0.261 and -3.908 for liquidity and leverage were significant at 10% and 1% respectively, implying that a unit increase in liquidity and leverage led to 0.261 and 3.908 units rise and fall in the cost of debt capital respectively. Thus, while liquidity shows an increase in the cost of debt capital, leverage was found to decrease it. Further, both managerial opportunism and interest rate result show an increase in the cost of debt capital at 5% and 10% significance level, respectively. Specifically, unit rise in managerial opportunism and interest rate show an increase in the cost of debt capital by 0.362 and 0.365 units, respectively.

Moreover, tangibility, among other variables, was insignificant. The findings of tangibility on the cost of debt capital impact contradict Moscarriello et al. (2014). The result of Tangibility shows a negative impact on firms' cost of debt in the UK and Italy.

Concerning the market price per share model, only liquidity was significant. Specifically, a unit increase in liquidity increases the market price per share by 0.0026 units at a 10% level of significance. However, market price per share models as a whole was not statistically significant (F-stats= 0.995; p=0.457).

POLS was most suitable for the equity returns model. Results in Table 4 show that both leverage and integrity had a statistically significant negative impact on equity return at 5%. Thus, a unit increase in leverage and integrity led to 0.608, and 0.556 units fall in equity returns, respectively. Additionally, gross domestic product growth significantly increases equity returns by 0.0940 units at a 10% level of significance. Neither IFRS nor its interaction with any of the accounting information environment variables had a statistically significant impact on equity returns.

Concerning the early IFRS adoption period (2006-2009), while the fixed effects model was the best for the cost of equity capital and market price per share models, random effects and the pooled OLS were chosen as the best for the cost of debt capital and equity returns models respectively.

Specifically, on the cost of the equity capital model, as seen in Table 4.4, only gross domestic product growth was statistically significant. Therefore, a unit increase in gross domestic product growth led to a 0.0133 unit rise in the cost of equity capital at a 1% significance level.

As regards the cost of debt capital model, 1 unit increase in leverage decreases the cost of debt capital by 1.799 units, and this is statistically significant at a 5% level. It further shows that a rise in managerial opportunism has a significant negative impact on the cost of debt capital. Precisely, a unit increase in managerial opportunism shows a decrease in the cost of debt capital by 0.0506 at a 10% significance level. Also, gross domestic product growth shows a negative impact on the cost of debt capital at a 10% significance level. Thus, with the -0.0356 coefficient of GDPG, it implied that a unit rise in GDPG significantly decreased the cost of debt capital by 0.0356 units.

In the market price per share model, none of the variables was significant. Hence, it was not surprising that the overall model was not statistically fit (F-stats 1.173;  $p=0.335$ ).

Also, concerning the equity returns model, tangibility had a positive impact on equity return with a coefficient of 0.359, which was significant at 10%. Leverage shows a negative impact on equity returns with a coefficient of -0.672, and this was significant at 5%. Managerial opportunism and gross domestic product growth had a positive impact on equity returns with a coefficient of 0.0744 and 0.0809, respectively, and these were significant at 1%. Moreover, the interest rate shows a coefficient of -0.706, and that was significant at 1%; thus, the interest rate had a significant negative impact on equity returns. For the late adoption period (2011-2014), the tests showed the fixed effects technique to be the best for all the models.

In Table 4.4, concerning the cost of equity capital model, only information asymmetry was significant. Specifically, information asymmetry shows an increase in the cost of equity capital by 0.0141 units at a 5% significance level.

In the cost of the debt capital model, tangibility, the result shows a positive impact at a 10% significance level. While leverage shows a negative impact at a 5% significance level, with coefficients of tangibility and leverage as 1.608 and -2.201, respectively. It implies that unit increments in tangibility and leverage increased and decreased the cost of debt capital by 1.608 and 2.201 units, respectively. However, the overall model for debt capital was not statistically significant ( $F\text{-stats} = 1.619$ ;  $p = 0.137$ ), implying that the model is not fit for predicting debt capital in the country.

Concerning market price per share, the positive coefficient of 0.00411 of information asymmetry implied that a unit increase in information asymmetry led to 0.0041 units increase in market price per share given that the coefficient of information asymmetry was significant at 1%. Regarding the equity returns model, information asymmetry, interest rate, and gross domestic product growth had coefficients of 0.0510, -0.747, and -0.0750, which were significant at 1%, 10%, and 10%, respectively. The implication is that a unit increase in information asymmetry, interest rate, and economic growth led to a 0.0510, 0.747, and 0.0750-unit increases, decrease, and fall in equity returns, respectively.

**Table 4.5: The Impact of IFRS on Performance of Listed Firms in South Africa  
(2001-2014 excluding 2005)**

	(FE) Profitability	(FE) ROIC	(RE) LNEPS	(FE) EBITDA
TANG	0.158* (0.0883)	0.295 (0.178)	1.179* (0.707)	3.178 (5.080)
LNLQ	0.0394 (0.0257)	0.0344 (0.0453)	0.307 (0.263)	-0.0942 (1.006)
LEV	-0.158* (0.0809)	-0.485*** (0.152)	0.240 (0.740)	-9.094 (7.034)
LNINTG	0.0656 (0.0479)	0.219** (0.0993)	0.117 (0.170)	-1.865 (1.470)
IA	0.0364 (0.0562)	0.132 (0.175)	-0.168 (0.378)	1.921 (3.331)
LNAF	-0.00413 (0.0161)	-0.00409 (0.0271)	0.227** (0.0890)	0.701 (1.203)
MO	0.00943 (0.0292)	-0.0212 (0.0720)	0.198 (0.163)	0.369 (2.018)
IFRSIA	-0.0380 (0.0556)	-0.119 (0.171)	0.0474 (0.401)	-2.455 (3.313)
IFRSAF	-0.000434 (0.00340)	-0.00105 (0.00705)	-0.0705*** (0.0254)	-0.306 (0.304)
IFRSMO	-0.0134 (0.0288)	0.0517 (0.0808)	-0.218 (0.160)	-0.548 (2.069)
LNIR	0.0858*** (0.0216)	0.138*** (0.0302)	0.107 (0.224)	-0.542 (1.323)
GDPG	0.00713*** (0.00248)	0.0149** (0.00584)	-0.0494*** (0.0190)	-0.326** (0.144)
IFRS	0.0389 (0.0287)	0.0791* (0.0435)	1.231*** (0.318)	6.136** (2.659)
Constant	-0.197** (0.0895)	-0.546*** (0.189)	-4.579*** (0.863)	5.491 (4.657)
<i>N</i>	636	636	635	636
No. of firms	49	49	49	49
Overall R <sup>2</sup>	0.0660	0.0703	0.00126	0.00842
F	5.968***	5.848***		1.974**
Chi2			55.19***	

Cluster robust standard errors in parentheses

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

With regards to the model for the 2001-2014 (excluding 2005) period to find out the impact of IFRS on firm performance, the tests conducted shows the fixed effects model to be the most suitable for the profitability. However, the return on investment capital and operations margin models chooses the random effects as appropriate for the earnings per share model.

In Table 4.5, regarding the profitability model, the results showed that tangibility had a positive coefficient of 0.158, which was significant at 10%. The implication is that, when tangibility increases by a unit, profitability increased by 0.158 units. Thus, tangibility had a positive impact on profitability. Conversely, leverage shows a negative coefficient (-0.158) that was significant at 10%. Thus, profitability would fall by 0.158 units if leverage increased by one unit. Therefore, it can be said that a unit increase in tangibility and leverage increase and decrease profitability respectively, by the same magnitude.

Further, interest rate and GDP growth with coefficients of 0.0858 and 0.00713 respectively that were both significant at 1%. The implication is that a unit increase in the interest rate and gross domestic product growth increased profitability by 0.0858 and 0.0071 units, respectively. The result of gross domestic product growth is not surprising since rising growth may imply the higher performance of firms, which would result in higher profitability. Also, the finding of interest rate increasing profitability could be that rising interest rates may increase the return on investment by firms, which may lead to higher profitability. However, IFRS, as well as its interactions with other variables, were found not to have any significant effects on profitability.

Concerning return on investment capital, the study found that while leverage had a negative coefficient of -0.485 that was significant at 1%, integrity had a coefficient of 0.219 that was significant at 5%. It can. Therefore, it shows that units increase in leverage, and integrity will decrease and increase return on investment capital by 0.485 and 0.219 units, respectively. Also, interest rate and gross domestic product growth show coefficients of 0.138 and 0.0149 that were significant at 1% and 5%, respectively. The implication is that a unit increase in the interest rate and gross domestic product growth increased return on investment capital by 0.138 and 0.0149 units, respectively. Moreover, while the interactions of IFRS with other variables were insignificant, IFRS was found to have a significant positive effect on return on investment capital. Thus,



with the coefficient of IFRS being 0.0791 and significant at 10% implies that the ROIC increased by 0.0791 units as a result of IFRS adoption.

Concerning the earnings per share model, tangibility had a positive coefficient of 1.179 that was significant at 10%. The implication is that, when tangibility increased by a unit, earnings per share increased by 1.179 units. Thus, tangibility had a positive impact on earnings per share. Also, analyst follow was found to have a positive coefficient of 0.227, which was significant at 5%. Hence, a unit increase in analyst following shows increase earnings per share by 0.227 units.

Further, the interaction of IFRS with analyst following (IFRSAF) had a negative coefficient of -0.0705 that was significant at 1%. Also, gross domestic product growth had a coefficient of -0.0494 that was significant at 1%, and IFRS had a coefficient of 1.231 that was significant at 1%. Thus, unit increases in IFRSAF, gross domestic product growth, and IFRS led to 0.0705 units fall, 0.0494 units fall, and 1.231 units increase in earnings per share, respectively. Thus, while the interaction of IFRS with analysts following an adverse effect on earnings per share, IFRS, on its own, had a positive impact. The finding on IFRS echoes that of Sanyaolu et al. (2017), who found a statistically significant effect of IFRS on earnings per share. However, this contradicts with Ironkwe and Oglekwu (2016), who found no statistically significant impact of the post-IFRS period on returns on equity and earnings per share. Adeuja (2015) found no statistically significant difference in the performance of banks in Nigeria during the pre- and post-adoption of IFRS.

Concerning the operations margin model, all the variables were insignificant except gross domestic product growth and IFRS. Therefore, given the coefficients of -0.326 and 6.136 for gross domestic product growth and IFRS, respectively, being significant at 5% imply that unit increase in gross domestic growth and IFRS led to 0.326 units fall and 6.136 unit rise respectively in operations margin. In all, it can conclude that, while IFRS did not have any statistically significant effect on profitability, it had positive statistically significant effects on all the other performance indicators. IFRS adoption had the highest impact on operations margin, followed by earning per share, and then returns on investment capital. The return on investment capital, EPS, and operations margin increase as a result of IFRS adoption is consistent with agency theory, signaling

theory, and positive accounting theories. From agency theory, IFRS adoption reduces self-seeking interest and leads to pursuing a corporate interest, thereby increasing corporate performance.

Similarly, from signaling theory, IFRS adoption creates a positive signal for the adopting firms due to higher transparency, the accuracy of accounting information, and accountability ensured under IFRS. This positive signal acts as an attraction for investors, leading to higher investment and, subsequently, higher performance in the IFRS-adopting firms. However, earnings per share decreased when IFRS adoption interacted with analysts following. This finding pertains to South Africa.

**Table 4.6: Determinants of Performance of Listed Firms in South Africa during the Pre-IFRS period (2001-2004), Early-IFRS period (2006-2009) and Late-IFRS period (2011-2014)**

	Pre-IFRS Adoption Period				Early-IFRS Adoption Period				Late-IFRS Adoption Period			
	(FE) Profitability	(FE) ROIC	(FE) LNEPS	(FE) EBITDA	(RE) Profitability	(RE) ROIC	(RE) LNEPS	(RE) EBITDA	(FE) Profitability	(FE) ROIC	(FE) LNEPS	(FE) EBITDA
TANG	-0.265 (0.300)	-0.141 (0.750)	-0.447 (1.007)	-1.558 (1.540)	0.0422 (0.0497)	0.144 (0.141)	-0.205 (0.540)	-2.276 (6.335)	0.241*** (0.0797)	0.339** (0.136)	1.781* (1.002)	42.07* (21.79)
LNLQ	0.0208 (0.0479)	0.120 (0.117)	0.660 (0.527)	-0.956** (0.438)	0.0370* (0.0217)	-0.0251 (0.0659)	-0.0387 (0.0884)	-0.902 (1.656)	0.0434** (0.0210)	0.0617 (0.0416)	-0.00518 (0.167)	-1.754 (2.219)
LEV	-0.299 (0.286)	-1.001 (0.738)	0.472 (0.862)	0.00183 (2.944)	-0.153** (0.0689)	-0.488** (0.199)	-1.364 (1.128)	-8.406 (7.274)	-0.268*** (0.0767)	-0.663*** (0.155)	-0.235 (0.338)	-30.71** (14.86)
LNINTG	0.0294 (0.0629)	0.178 (0.131)	0.524*** (0.190)	0.402 (0.850)					0.0703* (0.0383)	0.122* (0.0721)	-0.589*** (0.216)	-7.148** (3.248)
IA	0.133 (0.0978)	0.453 (0.334)	-0.518* (0.265)	-1.028 (1.107)	-0.0163 (0.0149)	0.0224 (0.0353)	-0.555 (0.392)	-1.069 (1.370)	0.00235 (0.00412)	0.00263 (0.00616)	0.0287 (0.0228)	0.0120 (0.189)
LNAF	-0.0131 (0.0198)	-0.0194 (0.0322)	-0.0165 (0.0514)	-0.306 (0.230)	-0.0188* (0.0113)	-0.0482 (0.0304)	-0.0349 (0.0863)	-1.041 (0.738)	-0.00888 (0.00861)	-0.00849 (0.0160)	0.0309 (0.0395)	-1.004 (0.835)
MO	-0.00955 (0.0319)	-0.0993 (0.0927)	0.559* (0.306)	0.312 (0.494)	-0.00816* (0.00456)	0.0292 (0.0433)	0.0354 (0.0299)	-0.124 (0.286)	0.0461*** (0.0121)	0.103*** (0.0227)	0.122 (0.221)	0.888 (1.018)
LNIR	0.0997 (0.0792)	0.200 (0.133)	0.292* (0.154)	0.457 (0.916)	0.0806** (0.0385)	0.0420 (0.104)	0.727** (0.286)	4.348** (1.744)	0.0825 (0.0746)	0.0377 (0.150)	0.0381 (0.266)	7.354 (9.489)
GDPG	0.0281 (0.0180)	0.0600 (0.0463)	0.102** (0.0473)	0.388 (0.271)	0.00606** (0.00302)	0.0142** (0.00699)	-0.0799*** (0.0266)	-0.374* (0.195)	0.0130* (0.00689)	0.0167 (0.0148)	-0.0561 (0.0509)	-0.450 (0.624)
Constant	-0.0830 (0.251)	-0.602 (0.669)	-5.313*** (0.753)	0.0481 (3.064)	0.0188 (0.0902)	0.192 (0.252)	-3.369*** (0.600)	1.303 (4.939)	-0.198 (0.123)	-0.193 (0.212)	-2.431*** (0.395)	-3.266 (14.85)
N	195	195	195	195	196	196	195	196	196	196	196	196
No. of firms	49	49	49	49	49	49	49	49	49	49	49	49
Overall R <sup>2</sup>	0.00147	0.0245	0.000992	0.0162	0.125	0.0852	0.00813	0.00846	0.0531	0.0570	0.0148	0.00534
F	2.046**	1.280	2.554**	1.262	33.58***	32.78***	24.80***	87.33***	5.562***	5.822***	3.602***	1.051

Cluster robust standard errors in parentheses

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

In Table 4.6, the tests conducted to find out the determinants of firm performance for the pre-IFRS period (2001-2004) showed the fixed effects technique to be the most suitable for all the models. However, in the profitability and return on investment capital models, none of the variables was significant. The models for profitability (F-stats=2.046; p=0.0541) was statistically fit but the model for return on investment capital was not statistically fit (F-stats= 1.280; p=0.272).

On the earnings per share model, integrity, information asymmetry, managerial opportunism, interest rate, and gross domestic product growth had coefficients of 0.524, -0.518, 0.559, 0.292 and 0.102 that were statistically significant at 1%, 10%, 10%, 10%, and 1% respectively. Thus, a unit increase in integrity, information asymmetry, managerial opportunism, interest rate, and gross domestic product growth led to 0.524 units increase, 0.518 units fall, 0.559 units rise, 0.292 units increase, and 0.102 units rise respectively in earnings per share. Moreover, regarding the operations margin model, only liquidity was statistically significant. Thus, the coefficient of liquidity being -0.956 implies that a unit increase in liquidity led to a 0.956 fall in operations margin at a 5% level of significance. However, the overall model for operations margin was not statistically fit (F-stats= 1.262; p=0.282).

In Table 4.6, on the determinants of firms' performance during the early IFRS adoption period (2006-2009), the random effects technique was found to be the most suitable for all the models. As regards the profitability model, liquidity and leverage had respective coefficients of 0.0370 and -0.153 that were significant at 1% and 10%, respectively. Thus, when liquidity increased by one unit, profitability increased by 0.0370 units. With an increase in leverage by a unit, profitability fell by 0.153 units. Further, analyst following and managerial opportunism had coefficients of -0.0188 and -0.00816, respectively, that were both significant at 10%. Thus, profitability shows a fall by 0.0188 and 0.0082 units when analyst following and managerial opportunism respectively increase by one unit.

Regarding the macroeconomic control variables, interest rate, and gross domestic product growth, both increase profitability. Specifically, a unit increase in the interest rate and gross domestic product growth led to 0.0806 and 0.0061 units increase in profitability, respectively, both at a 5% significance level.

On the return on investment capital model, leverage and gross domestic product growth had coefficients of -0.488 and 0.0142 that were significant at 5%. Thus, when leverage increases by a unit, return on investment capital fell by 0.488 units, and when gross domestic product growth increases by a unit, return on invested capital increased by 0.0142 units. Therefore, while leverage reduced return on investment capital, gross domestic product growth increased it.

In the earnings per share and operations margin models, only interest rate and gross domestic product growth were significant. Specifically, the interest rate had coefficients of 0.727 and 4.348 in the earnings per share and operations margin models, respectively, that were significant at 5%. Thus, a unit increase in interest rate shows an increase in earnings per share and operations margin by 0.727 and 4.348 units, respectively. GDP growth respective coefficients of -0.0799 and -0.374 in the earnings per share and operations margin models at 1% and 10% levels of significance. The study shows said that earnings per share and operations margin fell by 0.0799 and 0.374 units, respectively, when gross domestic product growth increased by one unit.

In Table 4.6, concerning the determinants of firms' performance during the late IFRS adoption period (2011-2014), the fixed effects technique was found to be the most suitable for all the models.

Concerning the profitability model, tangibility, liquidity, and leverage had respective coefficients of 0.241 0.0434 and -0.268 that were significant at 1%, 5%, and 1%, respectively. Thus, profitability increases by 0.241 units when tangibility increases by a unit. Also, when liquidity increases by one unit, profitability increased by 0.0434 units. When leverage increases by a unit, profitability fell by 0.268 units. Further, integrity and managerial opportunism had coefficients of 0.0703 and 0.0461 that were significant at 10% and 1%, respectively. Thus, profitability was found to increase by 0.0703 and 0.0461 units when integrity and managerial opportunism respectively increase by one unit. As regards the macroeconomic control variables, only gross domestic product growth was significant (at 10%). Thus, a unit increase in gross domestic product growth leads to a 0.0130 unit increase in profitability.

On the return on investment capital model, tangibility and leverage had coefficients of 0.339 and -0.663 that were significant at 5% and 1%, respectively. Thus, when tangibility increases by a unit, ROIC increased by 0.339 units, and when leverage increases by a unit, return on investment capital fell by 0.663 units. Also, return on investment capital was found to increase by 0.122 and 0.103 units when integrity and managerial opportunism respectively increase by one unit. The respective coefficients of 0.122 and 0.103 for integrity and managerial opportunism were significant at 10% and 1%, respectively.

In the earnings per share model, only tangibility and integrity were significant. Specifically, tangibility and integrity show coefficients of 1.781 and -0.589 that were significant at 10% and 1%, respectively. Thus, a unit increase in tangibility and integrity increased and decreased earnings per share by 1.781 and 0.589 units, respectively.

Concerning the operations margin model, tangibility, leverage, and integrity had respective coefficients of 42.07, -30.71, and -7.148, which were significant at 10%, 5%, and 5%, respectively. Thus, the EBITDA margin increased by 42.07 units when tangibility increased by a unit. Also, when leverage increases by one unit, operations margin decreased by 30.71 units, and when integrity increases by a unit, operations margin fell by 7.148 units.

**Table 4.7: The Impact of IFRS on Macroeconomic Indicators in South Africa  
(2001-2014 excluding 2005)**

	(POLS) GDPG	(POLS) LNEX	(POLS) LNIR
TANG	0.0714 (0.204)	-0.0149 (0.0135)	-0.0390 (0.0286)
LNLQ	-0.277* (0.160)	0.0142 (0.0139)	-0.0424* (0.0252)
LEV	-0.841** (0.414)	0.0247 (0.0361)	0.0284 (0.0558)
LNINTG	-4.017*** (0.467)	-1.018*** (0.0220)	0.840*** (0.0864)
IA	-0.319 (0.278)	-0.0229 (0.0462)	-0.0148 (0.0523)
LNAF	0.00780 (0.0851)	-0.0264* (0.0146)	0.0578*** (0.0191)
MO	-0.0198 (0.133)	-0.00898 (0.0213)	-0.0266 (0.0330)
IFRSIA	0.302 (0.294)	0.0344 (0.0473)	-0.00195 (0.0528)
IFRSAF	0.0392 (0.0287)	0.00302 (0.00342)	-0.00258 (0.00538)
IFRSMO	0.337** (0.163)	0.0105 (0.0232)	0.0312 (0.0351)
LNIR	1.316*** (0.128)	0.143*** (0.0134)	
LNEX	-5.234*** (0.513)		0.516*** (0.0734)
IFRS	-0.454** (0.198)	0.0245 (0.0233)	-0.333*** (0.0334)
GDPG		-0.0311*** (0.00216)	0.0282*** (0.00333)
Constant	17.14*** (1.563)	3.293*** (0.0616)	-0.0989 (0.260)
<i>N</i>	636	636	636
No. of firms	49	49	49
R <sup>2</sup>	0.256	0.612	0.415
F	151.0***	532.4***	586.9***

Cluster robust standard errors in parentheses

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

In Table 4.7, as regards the impact of IFRS on the macroeconomic variables, the tests showed that the POLS estimation technique was the best for all the models.

On the GDP growth model, liquidity had a coefficient of -0.277 that was significant at 10%. Therefore, whenever liquidity increased by a unit, GDP growth fell by 0.277%. Similarly, GDP growth shows a fall by 0.841 units whenever leverage increased by a unit, and this is significant at 5%. Also, integrity had a coefficient of -4.017 that was significant at 1%. Therefore, whenever integrity increased by one unit, GDP growth fell by 4.017 units. Besides, the interest rate and the exchange rate had coefficients of 1.316 and -5.234 that were significant at 1%. Thus, a unit increase in the interest rate and exchange rate led to 1.316 units increase, and 5.234 units fall in gross domestic product growth, respectively.

Moreover, the interaction of IFRS with managerial opportunism and IFRS had coefficients of 0.337 and -0.454, respectively, that were both significant at 5%. Thus, a unit increase in the interaction of IFRS with managerial opportunism and IFRS were found to increase and GDP growth by 0.337 and 0.454 units, respectively. Therefore, while the interaction of IFRS with managerial opportunism increased GDP growth, IFRS alone decreased it.

On the exchange rate model, integrity and analyst following had coefficients of -1.018 and -0.0264, respectively, that were significant at 1% and 10%, respectively. Thus, a unit increase in integrity and analyst following led to 1.018 and 0.0264 units fall, respectively, in the exchange rate. Also, interest rate and GDP growth had coefficients of 0.143 and -0.0311 that were both significant at 1%. Thus, a unit increase in the interest rate and gross domestic product growth led to 0.143 units increase, and 0.0311 units fall in the exchange rate, respectively. Therefore, while interest rate increased the exchange rate, GDP growth was found to decrease it.

Concerning the interest rate model, liquidity, integrity, and analyst following had coefficients of -0.0424, 0.840, and 0.0578 that were significant at 10%, 1%, and 1%, respectively. Thus, a unit increase in liquidity, integrity, and analyst following show decrease, increase, and increase the interest rate by 0.0424, 0.840, and 0.0578 units, respectively. Thus, while liquidity had a decreasing impact on the interest rate, integrity, and analyst following had increasing impacts. Besides, the exchange rate and GDP growth had coefficients of 0.516 and 0.0282 that were significant at 1%. Thus, a



unit increase in the exchange rate and gross domestic product growth led to 0.516, and 0.0282 units increase in interest rate, respectively.

Moreover, IFRS adoption shows a significant adverse effect on the interest rate. It shows a coefficient of -0.333 that was significant at 1%. Thus, the interest rate shows a decrease of 0.333 units as a result of IFRS adoption.

Thus, while IFRS did not have any statistically significant impact on the exchange rate, it instead had adverse statistically significant effects on GDP growth and interest rate. The finding on the impact of IFRS on GDP growth and interest rate conflicts with that of Akpomi and Nnadi (2017), Lungu et al. (2017), Pricope (2017), Olugbenga, et al. (2016) and Uchenna and Matthias (2015) who found IFRS to have a positive influence on FDI.

**Table 4.8: Determinants of Macroeconomic Indicators in South Africa during the Pre-IFRS period (2001-2004), Early-IFRS period (2006-2009) and Late-IFRS period (2011-2014)**

	Pre-IFRS Period (2001-2004)			Early-IFRS Adoption Period (2006-2009)			Late-IFRS Adoption Period (2011-2014)		
	(POLS)	(POLS)	(POLS)	(POLS)	(POLS)	(POLS)	(POLS)	(FE)	(POLS)
	GDPG	LNEX	LNIR	GDPG	LNEX	LNIR	GDPG	LNEX	LNIR
TANG	-0.150 (0.104)	-0.00616 (0.0229)	-0.0227 (0.0331)	-0.117 (0.618)	-0.0121 (0.0144)	0.0139 (0.0277)	-0.0877 (0.0808)	-0.0177 (0.0371)	0.00798 (0.0110)
LNLQ	0.104 (0.0735)	0.0205 (0.0171)	0.00354 (0.0175)	-0.956*** (0.322)	-0.00621 (0.0102)	0.00142 (0.0222)	0.0649 (0.0500)	-0.00447 (0.0193)	-0.00574 (0.00744)
LEV	0.200 (0.140)	-0.0123 (0.0471)	0.0591 (0.0466)	-2.431** (1.068)	0.00665 (0.0250)	0.00821 (0.0529)	0.332*** (0.123)	0.0412 (0.0289)	-0.0101 (0.0234)
LNINTG	-0.668 (0.456)	-0.666*** (0.0248)	0.273*** (0.0708)				0.0923 (0.924)	-0.904*** (0.0224)	0.160*** (0.0385)
IA	-0.0672 (0.183)	-0.0220 (0.0358)	0.00750 (0.0325)	-0.355 (0.237)	-0.00645 (0.00906)	0.0126 (0.0177)	0.0506** (0.0189)	0.00881 (0.00983)	-0.00676* (0.00345)
LNAF	0.120** (0.0577)	-0.0395*** (0.0129)	0.0551*** (0.0154)	0.374 (0.229)	-0.0105 (0.00837)	-0.0199 (0.0145)	0.163*** (0.0381)	0.0158 (0.0125)	0.0355*** (0.00316)
MO	0.0628 (0.101)	-0.00211 (0.0203)	-0.00173 (0.0236)	0.358*** (0.0869)	0.00299 (0.00262)	-0.0191** (0.00737)	0.0119 (0.0889)	0.0883 (0.0883)	-0.00328 (0.00649)
LNIR	-1.745*** (0.444)	0.540** (0.0677)		7.600*** (0.473)	0.311*** (0.0287)		-1.948*** (0.496)	0.184*** (0.0394)	
LNEX	-0.696 (0.518)		0.583*** (0.0472)	-17.91*** (1.038)		1.171*** (0.0627)	-2.415*** (0.744)		0.0552* (0.0324)
GDPG		-0.0289 (0.0225)	-0.0783*** (0.0130)		-0.0231*** (0.00238)	0.0369*** (0.00221)		-0.116*** (0.00911)	-0.0386*** (0.00663)
Constant	9.596*** (0.710)	1.926*** (0.249)	0.868*** (0.151)	23.25*** (2.802)	1.446*** (0.0599)	-0.301** (0.146)	10.57*** (2.370)	3.296*** (0.0675)	1.417*** (0.109)
N	195	195	195	196	196	196	196	196	196
No. of firms	49	49	49	49	49	49	49	49	49
R <sup>2</sup>	0.323	0.681	0.547	0.510	0.556	0.422	0.657	0.810	0.304
F	270.9***	627.0***	109.1***	244.5***	21.08***	93.59***	422.7***	1549.6***	43.54***

Cluster robust standard errors in parentheses

\*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

In Table 4.8, As regards the GDP model in the pre-IFRS period, analyst following and interest rate had coefficients of 0.120 and -1.745 that were significant at 5% and 1%, respectively. Thus, unit rise in analyst following and interest rates show an increase and decrease GDP growth by 0.120 and 1.745 units, respectively.

On the exchange rate model, integrity, analyst following, and interest rate had coefficients of -0.666, -0.0395, and 0.540 that were all significant at 1%. Thus, units increase in integrity, analyst following, and interest rate led to 0.666 units fall, 0.0395 units fall, and 0.540 units rise in the exchange rate, respectively.

Moreover, regarding the interest rate model, integrity, analyst following, exchange rate, and GDP growth had coefficients of 0.273, 0.0551, 0.583, and -0.0783 respectively that were all significant at 1%. Hence, if integrity, analyst following, exchange rate, and GDP growth increased by one unit, the interest rate would increase, increase, increase and decrease by 0.273, 0.0551, 0.583, and 0.0783 units, respectively.

In Table 4.8, on the determinants of macroeconomic variables in South Africa for the early-IFRS period (2001-2004), the tests showed the pooled OLS technique to be the best for all the models, and hence it was adopted.

Concerning the GDP growth model during the early-IFRS period (2006-2009), liquidity, leverage, managerial opportunism, interest rate, and the exchange rate had coefficients of -0.956, -2.431, 0.358, 7.600 and -17.91 that were statistically significant at 1%, 5%, 1%, 1%, and 1% respectively. Thus, a unit increase in liquidity, leverage, managerial opportunism, interest rate, and exchange rate show a decrease, decrease, increase, increase, and GDP growth by 0.956, 2.431, 0.358, 7.600, and 17.91 units respectively.

On the exchange rate model, interest rate and gross domestic product growth had coefficients of 0.311 and -0.0231, which were significant at 1%. Thus, a unit increase in the interest rate and GDP growth led to 0.311 and 0.0231 units increase and decrease respectively in the exchange rate.

Moreover, regarding the interest rate model, managerial opportunism, exchange rate, and gross domestic product growth had coefficients of -0.0191, 1.171, and 0.0369 that were significant at 5%, 1%, and 1% respectively. Hence if managerial opportunism, exchange rate, and gross domestic product growth increased by a unit, the interest rate would decrease, increase and increase by 0.0191, 1.171, and 0.0369 units, respectively.

On the determinants of GDPG, exchange rate, and interest rate in South Africa for the late-IFRS period (2011-2014), the tests showed the POLS technique to be the best for all the models except the exchange rate model for which the FE technique was the most suitable.

Concerning the gross GDP model, leverage, information asymmetry, analyst following, interest rate, and the exchange rate had coefficients of 0.332, 0.0506, 0.163, -1.948, and -2.415, respectively that were all significant at 1% except for information asymmetry that was significant at 5%. Thus, a unit increase in leverage, information asymmetry, analyst following, interest rate, and the exchange rate show an increase, increase, increase, decrease, and decrease GDP growth by 0.332, 0.0506, 0.163, 1.948 and 2.415 units respectively. Thus leverage, information asymmetry, and analyst following had increasing effects on GDP growth. In contrast, the interest rate and the exchange rate had adverse effects.

As regards the exchange rate model, integrity, interest rate, and GDP growth had coefficients of -0.904, 0.184 and -0.116 respectively, which were all significant at 1%. Thus, a unit increase in integrity, interest rate, and GDP growth led to 0.904 units decrease, 0.184 units increase, and 0.116 units decrease in the exchange rate, respectively.

Last but not least, integrity, information asymmetry, analyst following, exchange rate and GDP growth had coefficients of 0.160, -0.00676, 0.0355, 0.0552 and -0.0386 respectively that were all significant at 1% except information asymmetry and an exchange rate that were significant at 10% in the interest rate model. Thus, a unit increase in integrity, information asymmetry, analyst following, exchange rate, and gross domestic product

growth led to 0.160 units rise, 0.0068 units fall, 0.0355 units rise, 0.0552 units increase, and 0.0386 units fall in interest rate respectively.

#### **4.4 CONCLUSION**

This chapter successfully covered results and discussion of the study concerning the impact of IFRS on the capital structure-cost of equity capital, cost of debt capital, market price per share, and equity returns of listed firms in South Africa for the period 2001-2014 excluding 2005. It also covered results and discussion on the effect of IFRS on firms' performance (profitability, return on investment capital, earnings per share and operations margin) and macroeconomic variables (GDP growth, exchange rate, and interest rate). From the findings, it concludes that, from 2001-2014 excluding 2005, while IFRS did not have any statistically significant impact on the cost of equity capital and cost of debt capital, it did have a statistically significant impact on the market price per share and equity returns. Also, even though IFRS did not have any statistically significant impact on the exchange rate and profitability, it had a statistically significant impact on earnings per share, return on investment capital, operations margin, GDP growth, and interest rate.

## **CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND POLICY RECOMMENDATION**

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### **5.1 INTRODUCTION**

The dissertation empirically assessed IFRS Adoption and the interaction with the accounting information environment impact on capital structure, corporate and macroeconomic performances of JSE's listed firms, the only nation in Sub- Sahara Africa with the biggest economy.

This chapter covers the summary of significant findings, policy recommendations, and conclusions emanating from the thesis. Thus, it covered significant findings concerning the impact of IFRS on the Cost of Equity, Market Price per Share, Equity Returns, Cost of Debt Capital, Firm Performance, and Macroeconomic Factors in South Africa for the thesis period. Also, conclusions and recommendations flowing from the above findings as reported in this section.

### **5.2 SUMMARY OF FINDINGS**

This section provides a summary of the significant findings of the research by grouping them into before IFRS adoption, early and post IFRS adoption periods. For the pre-IFRS adoption period, the early-IFRS adoption period and the late-IFRS adoption period, the summary of findings on the determinants of Cost of Equity Capital, Market Price per Share, Equity Returns, Cost of Debt Capital, Firm Performance and Macroeconomic Performance in South Africa as reported. Moreover, for the 2001-2014 period excluding 2005, a summary of findings on the impact of IFRS on of Cost of Equity Capital, Market Price per Share, Equity Returns, Cost of Debt Capital, Firm Performance, and Macroeconomic Factors in South Africa was presented.

#### **5.2.1 Findings on the Impact of IFRS on Variables of the Study During 2001-2014 excluding 2005.**

Concerning 2001-2014 excluding the 2005 period, regarding the capital structure models, it was found that tangibility impact on the cost of debt capital shows a significant positive

effect. Also, liquidity shows a significant adverse effect on the cost of equity capital. Also, leverage s significant adverse effects on the cost of debt capital and equity returns. In contrast, integrity shows a positive and negative significant impact on the cost of debt capital and equity returns, respectively. However, information asymmetry, analyst following, managerial opportunism, their interactions with IFRS did not have any statistically significant effects on the cost of equity capital, cost of debt capital, market price per share, and equity returns. Further, the interest rate shows significant positive effects on the cost of capital (cost of equity and cost of debt) but an insignificant impact on the market price per share and equity returns. Also, while GDP growth shows significant positive effects on the cost of equity and equity returns, however, it was found to have a significant adverse effect on the cost of debt capital. Regarding the effect of IFRS, but was found to have a positive and negative significant effect on the market price per share and equity returns. Thus, while IFRS increased market price per share, it was found to decrease equity returns. Notwithstanding, the influence of IFRS on the cost of equity and the cost of debt was insignificant.

Further, regarding the performance models, tangibility shows significant positive effects on profitability and earnings per share. In contrast, leverage s substantial adverse effects on profitability and returns on investment capital. Also, integrity and returns on investment capital show a significant positive impact. In contrast, analyst following had a significant positive effect on earnings per share. However, the interactions of IFRS with information asymmetry and managerial opportunism did not show any substantial effect on all firm performance proxies.

Notwithstanding, the interaction of IFRS with analyst following show decrease earnings per share significantly. Also, the interest shows increase profitability and return on investment capital substantially. Moreover, while economic growth had significant positive effects on profitability and return on investment capital, it had a significant adverse impact on earnings per share and operations margin. Concerning IFRS, it shows significant positive effects on returns on investment capital, earnings per share, and operations margin. Notwithstanding, the impact of IFRS on profitability was insignificant.

As regards the macroeconomic indicators models, liquidity shows significant adverse effects on GDP growth and interest rate. Further, leverage shows a significant adverse impact on GDP growth. In contrast, integrity was found to decrease GDP growth and exchange rate but increase interest rates significantly. Also, while analysts following reduce the exchange rate dramatically, it instead had a significant positive effect on the interest rate. Also, the interaction of IFRS with managerial opportunism shows a significant positive impact on GDP growth. Moreover, while the interest rate shows increase both GDP growth and exchange rate significantly, the exchange rate was found to substantially decrease and boost GDP growth and interest rates, respectively. As regards GDP growth shows a significant adverse effect on the exchange rate, its impact on interest rates was positively significant. Last but not least, regarding IFRS, it shows significant adverse effects on GDP growth and interest rate while its impact on the exchange rate was insignificant.

### **5.2.2 Findings on the pre-IFRS period (2001-2004)**

In the pre-IFRS period (2001-2004), regarding the cost of equity capital model, none of the variables was significant. However, liquidity shows significant positive effects on the cost of debt capital and market price per share. In contrast, leverage shows significant adverse effects on the cost of debt capital and equity returns. Further, integrity shows a decrease (significantly) equity returns, while managerial opportunism shows an increase in the cost of debt capital significantly. Also, interest rate and GDP growth show significant positive effects on the cost of debt capital and equity returns, respectively. Regarding the performance models, all the variables, such as; profitability, EPS, EBITDA margin, and return on investment capital, were insignificant. However, integrity, managerial opportunism, interest rate, and GDP growth shows significant positive effects on earnings per share, while information asymmetry showed a significant adverse effect. Also, even though the p-value of the operations margin model was insignificant, liquidity was found to have a significant adverse effect on operations margin.

Concerning the macroeconomic models, integrity shows a negative and positive significant effect on the exchange rate and interest rate, respectively. Also, analyst following shows



significant positive effects on GDP growth and interest rate but a significant adverse effect on the exchange rate. Moreover, while the interest rate had a significant adverse effect on GDP growth, it had a significant positive effect on the exchange rate. Last but not least, while the exchange rate had a significant positive effect on the interest rate, the effect of GDP growth on interest rate was found to be negatively significant.

### **5.2.3 Findings on the early-IFRS period (2006-2009)**

In the early-IFRS period (2006-2009), regarding the capital structure models, all the variables in the market price per share model was insignificant. However, tangibility shows an increase in equity returns significantly. Also, leverages found to have significant adverse effects on the cost of debt capital and equity returns. In contrast, managerial opportunism had negative and positive significant effects on the cost of debt capital and equity returns, respectively. Moreover, the interest rate was found to have a significant adverse effect on equity returns. In contrast, GDP growth had positive, negative, and positive significant effects on the cost of equity capital, cost of debt capital, and equity returns, respectively.

Concerning the performance models, liquidity was a significant positive effect on profitability, while leverage had significant adverse effects on profitability and returns on investment capital. Further, analyst following and managerial opportunism had significant adverse effects on profitability while interest rate had a positive sign on profitability, earnings per share, and operations margin. Moreover, while GDP growth shows significant positive effects on profitability and returns on investment capital, it had significant adverse effects on earnings per share and operations margin.

Concerning the macroeconomic models, liquidity and leverage show decreasing significant effects on GDP growth. At the same time, managerial opportunism shows positive and negative significant effects on GDP growth and interest rate, respectively. Also, the interest rate shows significant positive effects on GDP growth and exchange rate. In contrast, the exchange rate shows negative and positive significant effects on GDP growth and interest rate, respectively. Last but not least, GDP growth shows a decrease and to increase significant effects on the exchange rate and interest rate, respectively.

#### **5.2.4 Findings on the late-IFRS period (2011-2014)**

For the late IFRS adoption period (2011-2014), as regards to the capital structure models, the cost of debt capital responds positively and negatively in a meaningful manner by tangibility and leverage, respectively, even though the overall cost of debt capital model was insignificant. Also, information asymmetry shows significant positive effects on the cost of equity capital, market price per share, and equity returns. Besides, both interest rates and GDP growth have significant adverse effects on equity returns.

On firm performance, tangibility has significant positive effects on all the performance indicators. In contrast, liquidity had a significant positive effect on only profitability. Also, the results show that leverage response negatively to profitability, return on investment capital, and operations margin. Moreover, while integrity shows significant positive effects on profitability and returns on investment capital, it was found to have significant adverse effects on earnings per share and operations margin. Further, managerial opportunism has significant positive effects on profitability and return on invested capital, while GDP growth had a significant positive effect on only profitability. It must, however, note that the overall operations margin model was insignificant.

Concerning the macroeconomic indicators, leverage shows a significant positive effect on GDP growth. In contrast, integrity had negative and positive significant effects on the exchange rate and interest rate, respectively. Also, information asymmetry shows positive and negative significant effects on GDP growth and interest rate, respectively. In contrast, analyst following had significant positive effects on GDP growth and interest rate. Moreover, while interest rate shows a decrease and an increase significantly on GDP growth and exchange rate respectively, the exchange rate was found to have negative and positive significant effects on GDP growth and interest rate, respectively. Last but not least, GDP growth shows significant adverse effects on the exchange rate and interest rate.

### **5.3 CONCLUSION**

Based on the findings, it concludes that, in terms of capital structure. At the same time, IFRS did not have a statistically significant effect on the cost of debt capital and cost of

equity capital; it had positive and negative significant effects on the market price per share and equity returns, respectively. On firm performance, IFRS concludes to have no significant effect on profitability but significant positive effects on return on investment capital, earnings per share, and operations margin. Last but not least, while IFRS concludes with no significant effect on the exchange rate, it, however, had significant adverse effects on GDP growth and interest rate.

#### **5.4 IMPLICATIONS AND RECOMMENDATIONS OF THE STUDY**

This research has numerous policy implications: Firstly, it helps the investment community to better understand the impact of international financial reporting standards on the cost of capital in leading investment decisions. Secondly, it is a motivation for standard-setting bodies in IFRS adopted nations to think through to enact laws and regulations, which will lead to more convergence into global accounting standards to benefit all debt capital providers and other participants. Thirdly it boosts financial statement analysis of companies after IFRS adoption and enabling them to assess and evaluate their performance against industry players.

Based on the findings, the study, therefore, made the following recommendations:

1. Other developing countries in Africa that are yet to adopt the IFRS standards must be encouraged to do so since it shows to increase the market price per share, return on investment capital, earnings per share, and operations margin.
2. Moreover, firms should institute measures that would increase the number of analysts following since it shows an increasing effect on earnings per share.
3. In addition to adopting IFRS, firm-level measures such as managerial opportunism must be checked instituted since the interaction of IFRS with managerial opportunism was found to enhance GDP growth.
4. Also, efforts geared towards increasing tangibility should be embarked upon since it shows increase profitability and earnings per share.
5. Policies toward ensuring GDP growth should be embarked upon since it shows to increase return on investment capital and profitability.
6. Also, improving integrity should be highly prioritized to increase returns on investment capital.

## **5.5 LIMITATIONS AND SUGGESTIONS FOR FUTURE STUDIES**

It admits that every study is limited, and this dissertation is no exception. First and foremost, the sample selection was limited to only 49 mining, agricultural, construction, and manufacturing firms (non-financial institutions) with a consistently published financial statement data. The results of this dissertation must be interpreted with caution and not generalized to the entire population of JSE listed companies. Second, results may also be different if interest variables were measured differently in our model specifications. Thirdly, although several essential control variables are considered in the current study, some additional control variables, that prior research has shown can impact the IFRS adoption decision, were not included. In this regard, the researcher believes a continuous interaction between large- sample and cross- country would enhance the literature on firm reaction to IFRS adoption that ensures credible and quality accounting information disclosure. The researcher believes that this dissertation provides scope for further studies. The study explores the comparison of capital structure, cost of capital, equity returns, firm performance, and macroeconomic indicators of firms in African countries that have adopted and firms in African countries who are yet to adopt IFRS provided data would be available.

A future study could compare the result by excluding the global financial crisis period, which may be volatile and unusual in the global economy. The inclusion of data beyond 2007 may have led to results that are not representative of the impact of IFRS adoption on the cost of equity capital and cost of debt capital, equity returns, and share/ stock price in a stable economy. Finally, the researcher believes that the study area of a cross-country study remains rich and requires future research.

**Table 5.1 Summary of Hypotheses**

Hypothesis	Assumed relationship	Actual relationship	Hypotheses therefore...
<b>H1o</b>	IFRS does not reduce the cost of equity capital of listed firms in South Africa	Negative, but not statistically significant	Confirmed
<b>H1a</b>	IFRS reduces the cost of equity capital of listed firms in South Africa		
<b>H2o</b>	IFRS has no effect on the cost of debt capital of listed firms in South Africa	Positive but not statistically significant	Confirmed
<b>H2a</b>	IFRS has an effect on the cost of debt capital of listed firms in South Africa		
<b>H3o</b>	IFRS does not affect the performance (EQR) of listed firms in South Africa.	Negative and statistically significant	Rejected
<b>H3a</b>	IFRS affects the performance (EQR) of listed firms in South Africa		
<b>H4o</b>	IFRS does not affect the performance (MPPS) of listed firms in South Africa	Positive and statistically significant	Rejected
<b>H4a</b>	IFRS affects the performance (MPPS) of listed firms in South Africa		
<b>H5o</b>	IFRS does not affect the performance (ROIC) of listed firms in South Africa	Positive and statistically significant	Rejected
<b>H5a</b>	IFRS affects the performance (ROIC) of listed firms in South Africa		
<b>H6o</b>	IFRS does not affect the performance (EBITDA margin) of listed firms in South Africa	Positive and statistically significant	Rejected
<b>H6a</b>	IFRS affects the performance (EBITDA margin) of listed firms in South Africa		
<b>H7o</b>	IFRS does not affect the performance (EPS) of listed firms in South Africa	Positive and statistically significant	Rejected
<b>H7a</b>	IFRS affects the performance (EPS) of listed firms in South Africa		

<b>H8o</b>	IFRS does not affect the performance (EBITDA ROTA) of listed firms in South Africa	Positive but not statistically significant	Confirmed
<b>H8a</b>	IFRS affects the performance (EBITDA ROTA) of listed firms in South Africa		
<b>H9o</b>	IFRS does not affect macroeconomic indicators (IR) in South Africa	Negative and statistically significant	Rejected
<b>H9a</b>	IFRS affects macroeconomic indicators (IR) in South Africa		
<b>H10o</b>	IFRS does not affect macroeconomic indicators (EXR) in South Africa	Positive but not statistically significant	Confirmed
<b>H10a</b>	IFRS affects macroeconomic indicators (EXR) in South Africa		

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