VICTORIA UNIVERSITY

Corporate Governance and the Financial Performance of Listed Companies in the East African Community

By

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BSc Accounting and MSc Accounting and Finance

Thesis submitted in fulfilment of the requirements of the degree of
Doctor of Business Administration (DBA)

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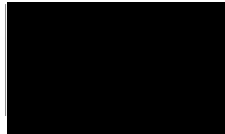
April 2017

Abstract

Corporate governance within the East African Community (EAC) is considered to have significant influence on the economic growth and development of the region. The overarching aim of this study was to examine the influence of corporate governance on the financial performance of listed companies within the EAC, following the operationalisation of the EAC common market in 2010. The study addressed the following specific objectives: (1) determining the relationship between corporate governance indicators (gender diversity of the board, board independence, enterprise risk management, and board size) and company financial performance; (2) comparing those corporate governance indicators before and after the operationalisation of the EAC- Common Market in 2010 and identifying the impact of any changes on EAC companies' financial performance; and (3) making recommendations about corporate governance provisions which might enhance company financial performance.

The researcher adopted a positivist paradigm in a quantitative research method and used non-probability sampling to select the forty-two listed companies used in the study. Hypothesis testing was based on secondary data from published statistics and annual reports. SPSS version 23 was used to generate output from the data for descriptive statistics, Wilcoxon signed-ranked test, Spearman's rank correlation, and OLS regression analyses. This study's findings indicated that gender diversity of the board had no statistically significant influence on company financial performance indicators such as ROA, ROE, LnTBQ and LnPER. Furthermore, the relationship between board independence, board size and company financial performance was inconclusive, while enterprise risk management had no significant influence on the EAC -listed companies' financial performance. Lastly, the findings from this study on the changes in corporate governance indicators before (2008/2009) and after (2013/2014) the operationalisation of the EAC- Common Market revealed inconclusive results. Despite the statistically insignificant and inconclusive relationships between the corporate governance indicators and company financial performance, the results from each regression model fit revealed that the indicators have become relatively more relevant to company financial performance since the operationalisation of the EAC Common Market. The study hence recommends future studies on corporate governance to be carried out in the EAC using different performance and corporate governance indicators such as duality of CEO's, board meetings and directors' qualifications to provide a broader understanding of the relationship between corporate governance and company performance.

I, David Namanya, declare that the DBA thesis entitled 'Corporate Governance and the Performance of Listed Companies in the East African Community' is not more than 65,000 words in length, including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Signature: ████████ Date 3rd April 2017

Acknowledgements

I would like to express my sincere appreciation to Dr Michelle Fong and Dr Maria Prokofieva, my principal and associate supervisors respectively, for their guidance and support throughout my DBA journey. Thank you both for your mentorship, which has helped me to improve my research skills. I also wish to thank Mr Gordon Campbell and Ms Diana Kabuzire, for editing, formatting and proofreading my thesis.

I also wish to extend my gratitude to my immediate family members, especially the family of my brother, Mr and Mrs Arthur Tumwine, who paid all my tuition fees, plus my maintenance costs in Melbourne. Furthermore, I acknowledge the huge support, both financial and emotional, of my dear wife Miriam Namanya, who has taken care of our family for the three years of my full-time education at Victoria University, Melbourne.

Finally, and most importantly, I would like to thank my parents, Mr and Mrs Amos Bateisibwa, for all their love and care, especially their sacrifices in raising me, paying for my education from kindergarten to university and inspiring me to pursue a post-graduate research career. I am intensely indebted to you all for your support, and I pray that God honours the wishes of your mind a thousand times.

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List of Abbreviations

AGM	Annual General Meeting
AIMS	Alternative Investment Market Segment
AMU	Arab Maghreb Union
ASX	Australian Securities Exchange
BCCI	Bank of Credit and Commerce International
BRC	Blue Ribbon Committee
CACG	Commonwealth Association for Corporate Governance
CII	Council of Institutional Investors
CMA-K	Capital Market Authorities Kenya
CMA-U	Capital Market Authorities Uganda
COMESA	Common Market for Eastern And Southern Africa
COSO	Committee of Sponsoring Organizations of The Tredway Commission
CWACG	Commonwealth Association for Corporate Governance
DSE	Dar Es Salaam Stock Exchange
EAC	East African Community
EASRA	East African Securities Regulatory Authorities
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EEC	European Economic Community
EFTA	European Free Trade Association
EGM	Extraordinary General Meeting
ERM	Enterprise Risk Management
FIMS	Fixed Income Market Segment
FISMS	Fixed Income Securities Market Segment
GDP	Gross Domestic Product
GEMS	Growth Enterprises Market Segment
GFC	Global Financial Crisis
IFIs	International Financial Institutions
IMF	The International Monetary Fund
IPO	Initial Public Offering
MIMS	Main Investment Market Segment
NASD	National Association of Securities Dealers

NSE	Nairobi Securities Exchange
NYSE	New York Stock Exchange
OECD	Organization For Economic Cooperation And Development
OLS	Ordinary Least Squares
ROTCE	Rwanda Over The Counter Exchange
RSE	Rwanda Stock Exchange
SACU	Southern African Customs Union
SADC	Southern African Development Community
SEC	Securities And Exchange Commission
SMEs	Small And Medium Enterprises
SOX	Sarbanes-Oxley
SPSS	Statistical Package for the Social Science
SSC	South Sea Company
UK	United Kingdom
USA	United States of America
USE	Uganda Securities Exchange

Chapter 1 Introduction

1.1 Background to the research

Corporate governance refers to the system by which companies are controlled and directed (Cadbury 1992) so as to protect the interest of all stakeholders and ensure an equitable return on investments (Sullivan 2009). Most corporate governance researchers have adopted the agency theory to explain the influence of corporate governance on company performance. The agency theory was first introduced by Berle and Means (1932) to explain the need for separation of ownership and control within an organisation. According to these authors, the absence of such a separation of ownership and control creates principal–agent conflict, which is an impediment to effective governance and company performance. Bhaduri and Selarka (2016) posit that the classical principal–agent conflict arises when the shareholders as 'principals' delegate power to the 'agent' for the day-to-day management of their business. The existence of sound corporate governance policies hence helps to mitigate the likely 'principal–agent conflict' by making sure that an organisation complies with laws, regulations and best practice governing an organisation, industry or country. Corporate governance ensures that an organisation creates good structures and systems for monitoring the self-seeking behaviour of managers to make them accountable for their personal decisions (Jensen, Michael C & Meckling 1976).

Corporate governance gained prominence in the 1980s and 1990s due to stock market crashes and corporate failure across the world (Katto, Wanyama & Musaali 2014; La Porta et al. 2000). According to Baek, Kang and Park (2004) and Arping and Sautner (2010), the presence of poor corporate governance in these decades resulted in corporate bankruptcies as evidenced by the corporate failure of such companies as Maxwell Empire, Ferranti, Coloroll, and the Bank of Credit and Commerce International (BCCI), British Commonwealth, Enron and WorldCom (Cheserek 2007). Other examples of corporate governance related failures include the Asian economic crisis (1997) that adversely Pakistan, India, Bangladesh and China's economies and, most recently, the Global Financial Crisis (GFC) of 2008 and 2009 (Lemmon & Lins 2003).

The influence of corporate governance on company performance has increasingly been cited as one of the factors that influences many countries' economic growth and development

(Ongore & K'Obonyo 2011). The World Bank has repeatedly attributed poor economic performance of the EAC countries' economies to poor governance, which is characterised by institutional and managerial deficiencies both public and private sector. (Dixit & Williamson 1988; Kerandi 2008). For instance, the 1989 World Bank report (including EAC countries) classified corporate governance in sub-Saharan Africa as a "crisis of governance" (Kerandi (2008, p. 1). Consequently, the international development agencies such as the International financial institutions (IFIs) have turned their focus to helping in the improvement of the corporate governance effectiveness as a way of promoting the regional growth and development (Ruparelia 2016). Similarly, the International Monetary Fund (IMF) have increased their involvement in strengthening corporate governance in sub-Saharan Africa on the grounds that corporate governance falls directly within their mandate and expertise (Gong 2002). They have made corporate governance an integral part of their policy advice as well as a precondition for any financial support or technical assistance to developing countries (De Vries & Nemec 2013). Therefore, since the 1990s both multilateral and bilateral donors have factored governance agendas into their financial assistance to the East African countries, (Ruparelia 2016) which has to some extent improved corporate governance practices in the EAC.

Furthermore, economic globalization has been another factor behind some corporate governance reforms in East Africa (Asiedu 2004). Good corporate governance practice is globally regarded as an important factor for mobilising domestic investment and ensuring greater inflows of foreign direct investment (Claessens, S. & Yurtoglu 2013). Owing to the fact that adherence to good corporate governance practices is an important factor for investment decisions (OECD 1999, 2004, 2015), the EAC stock markets had to adopt codes of corporate governance to attract the much-needed investment. However, the EAC countries still have undeveloped stock markets, and in most cases these stock markets only opened in 1990s, except the Nairobi security exchange in Kenya, whose stock markets started trading in 1954.

While sound corporate governance has been credited for enhancing quality financial reporting and increasing company's performance, it cannot guarantee similar benefits to all investors in different countries, due to differences in business practice (Davies & Schlitzer 2008). According to Haxhi and Aguilera (2014), the differences in corporate governance

practice worldwide are caused by differences between each country's historical, legal or political backgrounds. For instance, corporate governance frameworks in common law countries, such as the UK, USA, Canada, Australia, and New Zealand, tend to focus on the shareholder's interest while in civil law countries, such as the Netherlands, Germany, France and Italy, there is an inclination towards the stakeholder's interest (Mulili & Wong 2010).

Corporate governance in many countries has evolved over time as a retrospective action to prevent the recurrence of past corporate scandals. For example, in the USA, the corporate governance framework was developed partly in response to such scandals, prompting federal and state governments to amend their corporate governance practices to prevent their repeat (Katto, Wanyama & Musaali 2014). The Blue Ribbon Committee (BRC) of 1998/9 and the Sarbanes-Oxley report (SOX) of 2002 are some of the reports on which the USA's corporate governance framework is based (Li 2014). In the UK, the push for improved corporate governance started as early as the 1700s following the banking crisis involving the South Sea Bubble scandal, which led to the enactment of the Bubble Act (1720). The Bubble Act (1720)'s recommendations were later adopted by the Cadbury committee report (1992) which had been formed to investigate the corporate scandals of the 1980s in the UK involving Maxwell Publishing Group, BCCI and Poly Peck among others (Jonsson 2005).

In the East African Community (EAC), the need for corporate governance started with the 1990's economic liberalisation among the EAC member states (Uganda, Kenya and Tanzania) in which many public enterprises became privatised as part of the World Bank's condition for continuous support of regional economic growth and development (Gakeri 2013; Wanyama, DW & Olweny 2013; Yabara 2012). By the mid-1990s, Uganda, Kenya and Tanzania had formed Capital Market Authorities to regulate the activities of their respective stock markets. In 1997, a joint regulatory body known as the East African Securities Regulatory Authorities (EASRA) was formed with the responsibility of regulating the EAC Security Market's activities as well as accelerating the EAC Security Market's integration by harmonising the legal frameworks and market infrastructure and providing policy guidelines about the capital market's growth incentives within the EAC (Yabara 2012).

1.2   Significance of the study

The recent past has seen many corporate failures in the EAC, as a result of ongoing poor governance problems characterised by corruption, exploitation and nepotism (Brownbridge

2002; Fulgence 2014; Wanyama, DW & Olweny 2013). This resulted in some corporate failures such as the collapses of the Trust Bank in 1999, the Euro Bank in 2003 and Daima Bank in 2005. These banks went bankrupt due to poor performance caused by lack of good governance, and poor internal control systems characterised by enormous inside lending to directors and few shareholders (Cheserek 2007). In Tanzania, four companies - Richmond Development Company, Kiwira and Meremeta mining company, Dowans electricity company and Epayne Insurance Agency (EPA) closed down following a corruption scandal whereby the shareholders and the government lost colossal sums of money (Fulgence 2014). In Uganda, three private commercial banks, namely International Credit Bank, Greenland Bank and Trust Bank, closed indefinitely in 1999 following a court ruling that implicated the management in acts of corruption. These failures prompted EAC governments, EAC Security Markets, EASRA and other regulatory authorities to introduce new laws and codes of governance to protect stakeholders' interest (Muriithi 2009).

Until late 1990s, sound corporate governance practices in the EAC were not regarded as important by both the investors and the government regulatory agencies (Munisi & Randoy 2013). Instead, the EAC governments acting as company regulatory agent put more on the use of company law to mitigate 'principal–agent conflict'. For instance, strict enforcement of laws was considered as a suitable means of reducing inside dealing and market speculations. However, like many developing countries, the EAC have relatively weak systems of laws and regulations to protect the interests of different stakeholders (Rossouw 2005). According to the Transparency International Indices, the EAC countries are ranked among the most corrupt countries in the world (Transparency International 2014). Such high level of corruption further weakens the effectiveness of the legal system especially the enforcement of laws (Deflem 1995). Such challenges imposed profound pressure on the EAC countries to improve their corporate governance, which has resulted in the present corporate governance framework in the EAC which emphasises protection of shareholder interests, enhanced investor confidence and capital market development (Gakeri 2013).

The EAC developed their corporate governance codes of governance based on the UK, Malaysia, South Africa and the Commonwealth Association for Corporate governance (CWACG) as the major benchmarks (CMA, K 2002; CMA, U 2003). However, corporate governance practices are not as uniform as accounting standards, which require uniform practice across countries. These differences in the quality of corporate governance practices

across many countries pose serious concerns for investors (Bhagat, S. & Bolton 2008; Denis & McConnell 2003).

1.3 Aims of the study

The overarching aim of this study is to examine the influence of corporate governance on the financial performance of listed companies within the EAC by addressing the following specific objectives:

a) to determine the relationship between corporate governance indicators (gender diversity of the board, board independence, enterprise risk management, and board size) and company financial performance;

b) to compare the corporate governance indicators before and after the operationalisation of the EAC Common Market in 2010 and identify the impact of changes on EAC's company financial performance; and

c) to make recommendations about corporate governance indicators for enhancing company financial performance.

This study will assist in identifying the impact of corporate governance changes on the EAC's company financial performance and encourage listed companies, as well as the regulatory authorities, to proactively undertake and implement improvements in their corporate governance frameworks. The study thus provides new knowledge about corporate governance practices in developing countries in general, and EAC countries in particular. The findings will also help in encouraging economic growth and development by identifying good corporate governance practices (OECD 1999, 2004, 2015).

1.4 Context of the study

The presence of an effective corporate governance framework in an organisation correlates with improvements in the company's financial performance and resultant company value (Peters & Bagshaw 2014). This is particularly so in the emerging economies, where corporate governance is considered as a critical factor in attracting foreign direct investment (OECD 2004). The presence of a corporate governance framework can also help a company in fulfilling its stakeholders' needs whilst simultaneously protecting the investors' interests (Berglof & Claessens 2004). Amongst the EAC member countries, corporate governance is highly regarded as a means of accelerating the EAC's integration (EAC 2015). The presence of good corporate governance framework, hence, helps listed companies to consolidate the benefit from the EAC integration progress, such as the recent increased cross-listing of

companies, increases in intra-trade among the EAC states and reductions in cargo movement times (from eighteen to four days between Kenya and Uganda and twenty-one to six days between Kenya and Rwanda) (Prinsloo 2013).

In terms of growth and development, from 2013 to 2014 the EAC region registered an increase in total aggregate output of eleven percent - from US$ 99.3 billion to US$ 110.3 billion (EAC 2015). Although there is evidence of some economic developments due to the current economic integration, by 2014 no country in the EAC had amended its corporate governance and code governance to reflect the changes brought about by the EAC integration. Only NSE (Kenya) had indicated an interest in making changes to its corporate governance framework, as evidenced by the release of a blueprint of its draft corporate governance changes in 2015 (CMA, K 2014a). This research is therefore significant in exploring the necessary changes in corporate governance following the recent developments in the EAC economic integration and will suggest recommendations that can be used to inform corporate governance policy changes within the EAC. The study is based on the need to appraise the current EAC corporate government elements in consideration of the changes that have been brought about by the EAC's economic transformation from a Customs Union (with zero tariff barriers) in 2005 to the current Common Market (with free movement of capital and labour) which started in July 2010.

1.5   Methodology and conceptual framework

This study adopted a quantitative research design with a positivist paradigm approach using a deductive technique to examine the relationship between corporate governance and company financial performance (Veal 2005). To realise the study objective, the researcher used multiple regression in the ordinary least squares (OLS) method to examine the relationship between governance indicators (gender diversity of the board, board independence, enterprise risk management, and board size) and return on asset (ROA), return on equity (ROE), natural log of Tobin's q ratio (LnTBQ) and the natural log of price earnings ratio (LnPER) as indicators of company financial performance. This study used secondary data sources on company financial performance from the university's subscribed databases, namely DataStream, Eikon and Mint Global Bureau Van Dijk (2015). Microsoft Excel was used for data handling while SPSS version 23 was used to generate output from the data for descriptive statistics, Wilcoxon signed-rank test, Spearman's rank correlation, and OLS regression analyses. This study also adopted SPSS macro on HCSE (Heteroscedasticity-

Consistent Standard Error) estimators for linear regression developed by Hayes and Cai (2007).

1.6 Corporate governance definitions

According to Windsor (2009), the definition of corporate governance depends on whether one takes a broad or narrow approach to the concept. Using the narrow approach, corporate governance definition focuses on the relationship between a company and its shareholders (the shareholder-focused approach). This approach assumes that since a company belongs to its shareholders, they (as owners) should have the full right to decide the company's priorities, in order to increase its value (West 2006). Using this approach, corporate governance is defined as a means of mitigating the effects of principal–agent conflicts. Hence corporate governance focuses on the relationship between a company and its shareholders (Jensen, Michael C & Meckling 1976). On the other hand, the broader approach focuses on the stakeholder theory which considers the interests of all company stakeholders, including the shareholders, suppliers, employees, customers and the general public (Blair 1995; Solomon 2007). The main principle underlying this broader approach is the fact that many stakeholders make contributions to the company, and the company therefore has a duty of aligning its own interests with those of its stakeholders, whilst balancing different stakeholder interests (Carroll & Buchholtz 2014; Freeman 2010). Using the broad approach, corporate governance emphasises the need for checks and balances that help companies to discharge their accountability to their stakeholders while acting in a socially responsible manner (Solomon 2007).

Similarly, Mallin (2011) posits that corporate governance definitions are categorised according to the source of definition such as the Cadbury report or the OECD governance frameworks. For instance, the Cadbury report (1992) used the shareholder approach and defined corporate governance as "the system by which firms are directed and controlled" (Cadbury 1992 Paragraph 2.5). This definition highlights corporate governance as the responsibility of the board of directors to the shareholders. In contrast, the OECD (2004, p. 11) defines corporate governance, using the stakeholder approach, as "a set of relationships between the management, board, shareholders and other stakeholders of a company". The OECD definition highlights the stakeholders' interests as the most significant component of corporate governance (Solomon 2007). However, Keasey and Wright (1993), defined corporate governance as the external and internal structures and processes used to regulate

and control a company seeking to achieve its strategic objectives. The external corporate governance structures focus on statutory audits and legal and environmental compliances, while the internal structures look at the board and management systems, decision-making processes, and ownership structures. Corporate governance has also been defined by Aoki Aoki (2001, p. 11) as "the structure of rights and responsibilities among the parties with a stake in the firm". Similarly, Davis, GF (2005) defined corporate governance as a system of managing and controlling company resources through power sharing among different stakeholders.

While the above definitions may vary from the very specific to the very broad, they all emphasise the need for fairness, transparency, accountability, and responsibility as the foundations for any good corporate governance framework (Aguilera et al. 2015). However, corporate governance practices are not uniform across nations; basically every country has a distinctive set of corporate governance framework provisions reflecting its specific characteristics such as ownership style, the legal and financial system, the culture and the economic situation (Davies & Schlitzer 2008). Some companies adopt international corporate governance frameworks such as those developed by the OECD or CWACG as a means of harmonising their corporate governance structures and avoiding any conflicts with international investors. A country's corporate governance framework will thus normally comprise a code of governance and best practices. These codes of governance are mainly a set of voluntary standards, principles or best practices that are related to the internal governance of a company (Grandori 2004). Similarly, the best practices are generally ethical procedures and practices that have proved to be of value to organisations in different countries over time (Davies & Schlitzer 2008). The EAC's corporate governance codes emphasise the need for checks and balances as well as adequate standard disclosure. While this may not be a statutory requirement, all stock markets including those in the EAC, require all listed companies to comply with the corporate governance codes as a prerequisite for continuous stock market listing (CMA, K 2002; CMA, U 2003; Grandori 2004).

1.7   Corporate governance codes in the EAC

Prior to the introduction of the EAC corporate governance codes, public companies relied on company law as the only means to resolve their principal-agent conflicts (Katto, Wanyama & Musaali 2014). The EAC listed companies depended on the old provisions of the Company's Act (1961), which was replaced by Company's Act (2012) (Katto, Wanyama & Musaali

2014). Kenya is the first country in the EAC to introduce a code of corporate governance in 2002 followed by Uganda and Tanzania in 2003 (CMA, K 2002; CMA, U 2003). Rwanda introduced a code of corporate governance in 2010. These code of governance were mainly adopted from countries outside the EAC such as OECD and CACG countries, UK, South Africa and Malaysia (Yabara 2012). The EAC corporate governance codes mainly focuses on the conduct of the Board of directors (BODs) and the company management (Yabara 2012). It requires BODs to allocate adequate time for their corporate functions (CMA, K 2002; CMA, U 2003).

1.8   Company financial performance

The potential relationship between corporate governance and company performance is based on the assumption that good corporate governance results in improved company monitoring and control, which is likely to increase company financial performance (Katto et al, 2014; Peters & Bagshaw 2014). According to Shleifer and Vishny (1997), the profitability of a company depends on its corporate governance structures; companies with poor corporate governance structures are less likely to invest in profitable projects that can generate superior cash flows for the benefit of their shareholders. Sound corporate governance frameworks also promote better decision-making and greater efficiency in the allocation of a company's scarce resources, increase productivity, and improve the company's profitability (Heenetigala 2011).

Financial performance measurements can be used as a means of evaluating the extent to which a company has achieved its overall objective by comparing the targeted objectives with the actual results over a specified period of time (Richard et al. 2009). Performance measurements play an important role in many companies, particularly in helping managers to evaluate the effectiveness of existing company strategies, and identify opportunities for strategic changes which might better realise the companies' targeted performance objectives (Otley 1999; Porter 2008). The current study used accounting-based and market-based performance measures with the agency theory approach of Jensen, Michael C and Meckling (1976). The agency theory links company performance to corporate governance measures via the principal–agent relationship. Under the agency theory, the principal (shareholder/s) employs an agent (manager) to run the company and increase its value. However, because of the need for utility maximisation, the agent and the principal are often in conflict, because an agent may make decisions aimed at maximising his perquisites at the expense of the principal's value (Jensen, Michael C & Meckling 1976). This results in poor performance and

reduced profits, especially if companies do not have appropriate corporate governance guidelines to regulate the agent's decision-making activities (Agrawal & Knoeber 1996; Schneider 2013). Hence, the study used the ROA, ROE (accounting- based), and LnTBQ and LnPER (market-based) performance measurements, which are commonly used measures of company performance in corporate governance research (Hart & Ahuja 1996; Latorre & Farinós 2015; Tsoutsoura 2004). The accounting-based measures have been criticised for using historical figures as a measure of a company's current performance. Critics of the accounting-based performance measures believe that a company's financial performance should be assessed through analysing cash flows, rather than relying solely on a profitability assessment that can be manipulated by management through 'creative' accounting (Hall & Brummer 1999; Hoskisson, Johnson & Moesel 1994). The common manipulation of accounting profits involves the use of accounting policies and standards to bolster company profits in one or more periods. For example, in determining the non-current assets' value, the management can select unrealistic depreciation or re-valuation assumptions, to the disadvantage of the company shareholders (Chakravarthy 1986).

On the other hand, critics of market-based performance measurements consider them to be too simplistic due to their inherent assumptions, such as those of the efficient market hypothesis (EMH) used in determining share prices as a measure of company performance (Tobin 1984). For instance, according to Bettis (1983), it is difficult to determine the true market value of a company from publicly available information, due to information asymmetry between the company management and the public. Therefore, to avoid the drawbacks of either accounting or market-based performance measurements, this study used a mix of accounting (ROE and ROA) and market-based (LnTBQ and LnPER) performance measurements as indicators of company financial performance.

1.9   Limitations of the study

A number of limitations were identified in this study. Firstly, the study used a sample of forty-two companies that were listed on the EAC's stock exchange during the study period leaving out many companies from Rwanda, Tanzania and Uganda whose stock markets were not operational until after 2010. For instance, the Rwanda stock exchange operated as an over-the-counter exchange market without any listed company until January 2011, while Tanzania and Uganda whose stock markets begun operating in 1998 and 1997 respectively had less than ten listed companies on their respective stock markets (6 Ugandan and 9 Tanzanian). Therefore, this made majority of the recurrently listed companies in the three

counties not to qualify to be included in study sample. Secondly, the current study used financial data from listed companies only, which means that private companies and other small and medium enterprises were not considered, although they are also affected by corporate governance (Chiloane-Tsoka & Rasivetshele 2014). Thirdly, financial data was extracted from private databases (DataStream and Eikon), and most companies whose data was missing were left out of this study. Fourthly, the study used some specific accounting-based and market-based performance measures. The selection of these measures was based on previous research. Using different performance measures could possibly result in different results.

1.10 Summary of the thesis

This thesis contains six chapters. Chapter 1 introduces the topic and provides the background of the study, the significance of the study, its aims and objectives, the context of the study, a summary of the methodology adopted in this study, a definition of corporate governance, EAC corporate governance codes, Company financial performance and the limitations of the study. Chapter 2 provides an account of the literature review of the study's keywords (i) corporate governance, (ii) company performance and (iii) the East African economic integration. Chapter 3 provides the conceptual framework of corporate governance and company financial performance, including a review of the literature on the conceptual framework to show the relationships between the individual elements of corporate governance (gender diversity of the board, board independence, enterprise risk management, and board size) and company financial performance, represented by ROA, ROE, LnTBQ and LnPER. The conceptual framework chapter also presents the hypotheses used for addressing the aims in this study. Chapter 4 explains the methodology used in the study, which includes its research paradigm, data collection, statistical analysis and research ethics. Chapter 5 presents the statistical analysis results, including the results of OLS's diagnostic test, descriptive statistics, Wilcoxon signed-rank test, Spearman's rank correlation and OLS multiple regression results. Finally, Chapter 6 provides a discussion of the study's findings and conclusion. The chapter also discusses the implications of the statistical analysis in relation to corporate governance and the EAC listed companies' financial performance, the contribution to knowledge, the limitations of the study, and finally the study's recommendations.

Chapter 2   Literature review

2.1   Introduction

A review of literature helps to identify the literature gaps as a justification for future research studies (Rowley & Slack 2004). This chapter covers the literature on corporate governance, company financial performance and the EAC's economic integration. The chapter is structured as follows: Section 2.2 is about theoretical review, Section 2.3 looks at the developments and changes in corporate governance, Section 2.4 covers the measures of company financial performance, Section 2.5 is about the relationship between corporate governance and company financial performance, Section 2.6 highlights the EAC's regional economic integration and Section 2.7 covers the East African stock markets, while Section 2.8 concludes the chapter.

2.2   Theoretical review

A number of theories have been used in research to explain the relationship between corporate governance and company financial performance. These include the agency theory, the stewardship theory, the stakeholders' theory, the resource dependency theory, the legitimacy theory, and the institutional theory.

2.2.1   The agency theory

The need to separate organisational ownership and control creates an agency relationship, whereby shareholders (principals) contract managers (agents) to run their business on their behalf (Bhaduri & Selarka 2016; Fama & Jensen 1983; Jensen, Michael C & Meckling 1976). An agency relationship is thus established due to an organisation's need to ensure independence of organisational control from organisational ownership. Jensen and Meckling (1976) perceive a company as a nexus between different types of stakeholders, with the principal at one end and an agent on the other. The principal and the agent hence have different rights and responsibilities, which theoretically should complement each other for the economic good of the company. However, the agency theory suggests that managers are selfish beings, inclined to the promotion of personal interests rather than those of the principal, in the process of the company's strategic decision-making. The agency theory hence seeks to resolve such principal–agent conflicts of interest by means of applying strict monitoring and control systems, which aim to restrain subjective management decisions and actions. The principal–agent conflict is further exacerbated by information asymmetry, in that an agent is perceived to have more information than that of the principal, thus creating a

moral dilemma which might motivate an agent to pursue personal interests that may be irreconcilable with those of the principal (Bhaduri & Selarka 2016). Consequently, the principal is forced to incur agency costs, e.g. the monitoring cost (audit fees) to make the agents accountable for their decision-making roles, in an attempt to reduce the agent's extravagances that may harm the principal's economic interests (Jensen & Meckling 1976).

Typically, in listed companies, shareholders appoint a board of directors (agents) to oversee the company on their behalf. The directors, in turn, engage employees to carry out the day-to-day management of company undertakings. The shareholders delegate their powers to the agents, imposing on them a fiduciary duty to serve the interests of the shareholders. Shareholders appoint agents to run their business because some companies have hundreds if not thousands of shareholders; it would be impracticable, indeed hectic, if every shareholder wanted to run the business. Moreover, most shareholders lack the skills, knowledge, time or inclination to manage their own investments (Bhaduri & Selarka 2016). They are therefore willing to engage a professional manager with the skills and knowledge needed to achieve the company's primary objectives of shareholders wealth maximisation (Friedman 2007). Agents, on the other hand, are willing to offer their skills, knowledge and time in exchange for reward, in pecuniary or nonpecuniary terms. This creates multiple goals, and/or lack of goal congruence between the agent and the principal (Jensen & Meckling 1976). It is in the principal's interest to minimise agency costs, including the manager's rewards, to maximise the company value. However, because of the agents' perceived self-seeking nature, they tend to focus on maximising their personal interests such as remunerations, luxurious offices, personal assistants or even luxury cars (Jensen & Meckling 1976). Consequently, they may not always act in the best interests of the principal, but rather seek to maximise their own utility, which gives rise to principal–agent conflicts (Jensen & Meckling 1976). To mitigate such conflicts, the principal also incur some costs, such as the cost for drawing legal employment contracts that clearly articulates the manager's accountability and responsibility. Other agency costs may include payment for the agent's asymmetric information and monitoring of managerial performance e.g. paying for external audits and review (Bhaduri & Selarka 2016; Fama & Jensen 1983; Jensen, Michael C & Meckling 1976).

Furthermore, the principal will also need to ensure that an appropriate reward scheme is implemented, namely one which effectively motivates the agent to act in the principal's best

interest. Such initiatives result in additional monitoring costs aimed at linking the agent's selfish nature to the principal's best interests, thus incentivising a reduction in the agent's excessive expenditures, whilst encouraging the achievement of higher shareholder returns in the end. The agency theory, hence advocates strict monitoring and control of the agent's activities. This is achievable by putting in place a set of good corporate governance policies and structures, such as utilisation of a suitable board size, composed of an appropriate number of independent non-executive directors and board diversity, as well as good risk management systems as a means of increasing the principal's wealth (Grant, P & McGhee 2014). This study used the agency theory recommendations to explain the importance of gender diversity of the board, board independence, risk management and board size as means of enhancing company financial performance. The agency theory has a big influence on corporate governance in the EAC, because corporate governance indictors such as gender diversity of the board, board independence, enterprise risk management, and board size enhances the board's ability to monitor and control management decisions. It also ensures companies' compliance with laws, and links the firm with its external stakeholders, which reduces agency costs and improves company financial performance (Carter et al., 2010).

2.2.2   Stewardship theory

The stewardship theory provides an opposing view to the agency theory (Donaldson, Lex & Davis 1991). This theory views managers as company stewards who act in the best interest of the shareholders (Donaldson, T & Preston 1995). According to Donaldson, Lex and Davis (1991), the management is assumed to be trustworthy and considerate in the use of company resources, hence managers aim to increase company profits and to maximise shareholder returns. This view is shared by Davis, JH, Schoorman and Donaldson (1997) suggestion that the main goal for the managers or stewards is to maximise company profits so as to increase the shareholder value, which in turn maximises the managers' satisfaction. Proponents of the stewardship theory are thus confident that management decision making will be to the benefit of company investors (Grant, P & McGhee 2014). The stewardship theory also suggests that shareholder satisfaction in a company's positive performance will subsequently lead to greater levels of satisfaction for its managers. Therefore, a good company performance is looked at as a means of attaining both the shareholders' and managements' satisfaction because the stewards' and shareholders' interests are concurrently maximised (Davis, JH, Schoorman & Donaldson 1997).

Supporters of the stewardship theory like Donaldson, L and Davis (1989), submit that managers are more motivated to maximize the company's financial performance for their reputation's sake, confident that high levels of performance will avail their future career opportunities, than they are motivated to seek shorter term self-interests which aren't likely to benefit owners. In such a case, a consistent and progressive company performance is seen as a good indicator of the management's competence, which is attributed directly to individual employees, the management team or the CEO's performance. This was identified earlier by Fama (1980), who contends that company executives manage not only their company's resources, but also their careers, with a desire to be seen as the most effective and resourceful stewards in a given sector or industry. According to Abdullah, H and Valentine (2009), the stewardship model is more applicable to the Japanese corporate governance model, with employees assuming the role of stewards. Moreover, the stewardship theory encourages the duality of the CEO as a means of reducing the company agency costs and the appointment of executive directors on company boards as a source of good business practice to enhance company performance (Clarke 2004). The stewardship theory has an immense influence on corporate governance developments in the EAC especially for SME's and family owned companies. However, the structure of most EAC listed companies does not follow the views of the stewardship theory, as it has majority of independent non-executive directors on the board, encourages gender diversity, and relatively big board size and has the audit committees responsible for the enterprise risk management.

2.2.3 Stakeholder theory

The stakeholder theory builds on the agency theory (Donaldson, T & Preston 1995). This theory extends the board's responsibility from shareholders, as a single category of company stakeholders, to a wider spectrum of stakeholders, including employees, the press, suppliers, customers, government, and the public (Mendelow 1991). The theory views an organisation as a coalition of different stakeholders that exists to serve the interests of a wider society (Mendelow 1991). A stakeholder is considered as any individual or group of individuals with interest and power to influence an organisation's strategy (Davis, Schoorman & Donaldson 1997; Donaldson, L. & Davis 1991; Fama 1980; Freeman, 1984).

Whilst the financial performance of a company partially depends on its stakeholders' perception of the entity, it is difficult for organisations to meet all stakeholders' interests (Clarkson 1995). This theory therefore suggests that companies should aim to satisfy the interests of key stakeholders, who deserve the management's maximum attention, given their

respective interest and influence. Management should endeavour to meet the expectations of all stakeholders, by prioritising their interests in relation to their relative level of influence in the organisation, to maximise broader stakeholder support of company strategy. For example, the interests of the employees is more important than those of the community or suppliers, thus managers devote greater efforts to muster support from internal stakeholders such as employees as compared to other external stakeholders (Mendelow 1991).

Unlike the agency theory, which sees managers as only answerable to their appointing authority i.e. the shareholders, under stakeholder theory managers are responsible for the interests of all stakeholders, including investors, government, suppliers, trade associations, employees, communities, customers and political groups (Donaldson, T & Preston 1995). The stakeholder theory hence looks at a company as a network people or groups of people who exist to create value for the benefit of all its stakeholders (Clarkson 1995). Freeman et al. (2010) posit that a company is a network of relationships that influences an organisation's decision-making processes. The company is thus required to take care of these relationships when planning its structures, processes and the outcomes. The stakeholder theory postulates that a company should strive to meet the expectations of the aforementioned stakeholders, based on their level of stake and influence (Donaldson, T & Preston 1995; Mendelow 1991). Company financial performance is not only relevant to shareholders, but also to other stakeholders such as employees, board of directors, creditors, the government, and the public. This thesis hence addressed the independence of board of directors who are key members of the listed companies' stakeholders.

2.2.4   Resource dependency theory

The resource dependency theory states that the significance of the individual board directors depends on their respective contributions in facilitating the company's access to key resources for the benefits of its shareholders (Adegbite 2012). This theory proposes that companies appoint their board members based on their capability to promote the company access to some resources considered as critical in enhancing company value (Johnson, Daily & Ellstrand 1996). These key resources may include business expertise (such as from a chief executive officer), community influence, connection with politicians or community leaders, strong networks of influential professionals (such as accountants, lawyers, lecturers, bankers, and media experts) or industry peers for inside knowledge (Abdullah, H & Valentine 2009). An organisation using the resource dependency theory would, for instance, appoint a banker

to its board to gain benefit from his/her banking expertise and professional connection in credit management without considering other qualities like the degree of the director's independence.

The resource dependency theory characterises the company's board as an important link between the organisation and its external environment, which is necessary for a company to achieve good financial performance (Ambrosini 2007). According to Pfeffer and Salancik (2003), the use of the board of directors as a linkage between the company and its external environment has several benefits. For instance, it provides a company with beneficial information; the company can gain support from important elements of the environment; and, such a linkage may add value in legitimising a company in the environment within which it operates. According to Hillman, A. J., Shropshire and Cannella (2007), female directors are identified as one of the key resources needed by any company; their presence on the board portrays equality and better career opportunities for prospective employees. This helps an organisation to attract better quality employees, who will drive increases in the company's performance.

2.2.5   Legitimacy Theory

According to Suchman (1995, p. 574), the legitimacy theory assumes that "the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions". Hence, Deegan (2013) posits that the legitimacy theory assumes the existence some beliefs which gives rise to a social contract between an organisation and the society. This gives approval to an organization to carry out its business, and in return, an organisation is expected to provide accountability to the society (Deegan 2013). The legitimacy theory thus emphasises the need for an organisation to comply with the rights and expectations of its host community. Failure to comply with public expectations may result in sanctions being imposed, in the form of restrictions on the company's operations and resources and the market for its services or products (Deegan 2013).

Likewise Hybels (1995) posits that the advantage of adopting the legitimacy theory in corporate governance is based on the fact that it examines the importance of stakeholders and how they influence the inflow of wealth into an organisation, thus contributing to organisational growth and ongoing survival. Hybels (1995) acknowledges the importance of the government, the general public, financial institutions and the press as a company's major

stakeholders. In the EAC, the federal governments controls and influence the company's operations through agreements, grants, and regulation as well as via tax systems. On the other hand, the public control and influences some organisations by virtue of the fact that they are a source of demand for the company's products and services, as well as the source of the labour and raw materials. Security markets, banks, and other financial intermediaries provide investment capital while the press influences public opinion about the company's products and services (Mendelow 1991; Tilling 2004). Hence, listed companies have a legitimate responsibility to meet the expectations of the society (Ashforth & Gibbs 1990).

The legitimate theory has a big influence on corporate governance in the EAC. Most of the EAC listed companies appoint independent board representatives from the government, the public, advocacy and special interest groups (gender), and financial institutions to legitimise the company operations.

2.2.6   Institutional Theory

According to Ritzer (2004), the institutional theory defines the deepest and strongest aspects of an organisation's social structure, including the processes by which structures, rules, norms, and routines become recognised as appropriate guidelines for social behaviour. This concept thus provides a justification for the connection between a company's external and internal corporate governance structures (Weir, Laing & McKnight 2002). The assumptions of the institutional theory have been widely supported in the finance and accounting literature (Aldridge 2004; Greenwood & Hinings 1996; Kondra & Hinings 1998). Furthermore, Ritzer (2004) suggests that institutional theory provides a detailed and more resilient consideration of social structures, particularly in regards to how they are created, diffused, adopted and adapted by an organisation over time, and how they may decline and fall into disuse. The institutional theory asserts that particular organisational structures and procedures are adopted because they are relevant to their external environment (Ritzer 2004). The theory also assumes that institutional networks are not simply control and co-ordinating tools for economic benefits, but are created as sets of rules and beliefs, which exert social pressures for membership conformity, and are a good source of legitimacy and rewards for the company (Major & Hopper 2004).

On the contrary, Aldridge (2004) echoes the criticisms of some accounting researchers who reject the institutional theory's assumptions that organisations are bounded, relatively autonomous and economically rational. Accordingly, Dacin, Goodstein and Scott (2002),

Powell (2003), and Scott, WR (2005) attempted to resolve such criticisms by restricting institutional theory's applicability to governmental and Non-for profit organisations. They argue that companies are dichotomised as facing either institutional or technical (efficiency) demands (Powell 2003). The institutional theory is used in this study to define the company structures, rules, norms, and routines that influence company performance. These structures include the corporate governance elements such as gender diversity of the board, board independence, enterprise risk management and board size.

2.2.7   Political Theory

The political theory suggests that governments play an important role in the listed company's corporate governance policies (Pound 1993). Government influence may be due to its control over the micro-economic and macro-economic policies as well as the existing political structures, ideology, and ruling party system (Roe 2003). Furthermore, political theory brings the approach of developing voting support from shareholders, rather than purchasing voting power and hence having a political influence in corporate governance within the organisation (Pound 1993). Public interest is much reserved as the government participates in corporate decision-making, taking into consideration cultural challenges. This highlights that the allocation of corporate power, profits and privileges are determined via the governments' favour (Pound 1993). The political model of corporate governance can have an immense influence on governance developments. This is common in EAC countries because governments have a strong political influence on companies.

2.2.8   Transaction Cost Theory

Transaction cost theory is linked to corporate governance and agency theory (Coase 1937). According to Williamson (1985) and Pound (1993) both agency and transaction costs arises from the principal – agent contract in which the principals (shareholders) hire an agent (manager) to run their business. These two theories assumes that the management behaviour influences company performance. However, difference lies in the fact agency theory looks at the managers' lack of altruism, which makes them focus on their personal goals such as remuneration, privileges or prestige at the expense of shareholders wealth maximisation while transaction cost theory deals with the agent's responsibility in minimising transaction costs such information gathering, negotiation, re-negotiation and enforcement (Williamson 1985).

According to Williamson (1988), transaction costs are influenced by bounded rationality and opportunism. Managers may make transactions in an opportunistic way with an aim of

attaining their personal objectives than those of their investors. Consequently, they may approve transaction costs that ignores shareholders' interest of maximising wealth. The transaction cost theory hence requires managers' to ensure efficiency in managing company transactions and reduce costs. This requires managers to internalise transactions to mitigate unnecessary transaction costs associated with key stakeholders such as directors, employees, suppliers or customers. This is achievable through sound corporate governance system (Benkler 2002; Coase 1937; Jensen, Michael C & Meckling 1976). This thesis looked at the risk management and independent board of directors as a means to reducing agency and transaction costs.

2.3   Developments and changes in corporate governance

The concept of corporate governance emerged in the 16th century after the incorporation of the first company in Western Europe (Claessens, S. & Yurtoglu 2013; Melyoki 2005). Company incorporations later spread to other countries, and by the end of the 17th century, many service companies (mainly owned by governments) were operating in Europe and beyond, fulfilling public needs such as hospital and education services. These service-oriented government companies transformed into profit-making entities, and according to Grant, GH (2003), the first profit-making company commenced operations in England after the 1844 Act, which allowed organisations to engage in business as a profit-making organisation. The concept of profit-making organisations was promoted in other countries such as the USA, Australia, South Africa and New Zealand, where common law principles were used for company governance purposes (Tricker & Tricker 2008).

According to Abbott, Parker and Peters (2004), currently existing corporate governance frameworks have largely evolved retrospectively, via a reactive rather than a pre-emptive process. For example, the USA's corporate governance framework emerged as a result of corporate scandals that prompted the federal and state governments to introduce new guidelines as a deterrent to corporate mismanagement (Abbott, Parker & Peters 2004). The Blue Ribbon Committee (BRC) of 1998/9 and the Sarbanes-Oxley Act (SOX) of 2002 are some prominent examples of reports providing the basis of the USA's current corporate governance framework (Arping & Sautner 2010). The BRC was constituted in 1998, by the National Association of Securities Dealers (NASD) and the New York Stock Exchange (NYSE) to review and make recommendations on how to improve financial reporting (Abbott, Parker & Peters 2004). It recommended audit independence, increased board size

and diversity of the audit committee and was later adopted by the Securities and Exchange Commission (SEC) in 2000 (Abbott, Parker & Peters 2004). Similarly, the Sarbanes–Oxley (SOX) Act 2002, which was triggered by the Enron/WorldCom scandals of 1999/2000, offered corporate governance guidance on directorial independence, transparent financial reporting and disclosures and the composition of audit and remuneration committees (Grant, P & McGhee 2014). The SOX (2002) recommendations were also adopted by the US Congress, resulting in changes to the stock exchange listing rules in USA from 2002 onwards (Arping & Sautner 2010). Some recommendations of the SOX Act 2002 have been adopted in many countries as a measure against the risks of corporate failure and mismanagements (Mallin 2011).

On the other hand, the UK's current code of governance stemmed from the banking crisis of the early 1700's and the South Sea Bubble scandal that lead to enactment of the Bubble Act of 1720 (Kondap & Singh 2011). This scandal originated from the Conservative Party's incorporation of the South Sea Company (SSC) in 1711 to compete with the Bank of England. The SSC continued to receive favours from the Conservative government of the time, but the SSC management engaged in market speculations which mislead the market about the company's future projections, resulting in an abrupt eightfold share price increase within one year (1719 and 1720) (Kondap & Singh 2011; Patterson & Reiffen 1990). Consequently, in 1721, SSC's share price plummeted by 600 percent, causing a huge loss to shareholders (Kondap & Singh 2011). The UK government then instigated a formal enquiry that resulted in the 1720 Bubble Act. The Act addressed issues of company management conduct, directors' honesty, fraud and bribery (Harris 1994; Kondap & Singh 2011). Nearly two centuries later, these constraints were strengthened by the Cadbury committee, which was commissioned in 1991 to investigate and make recommendations about improving corporate governance following the 1980's corporate scandals involving Maxwell Publishing Group, BCCI and Poly Peck (Jonsson 2005). The Cadbury report addressed key corporate governance indicators that form the backbone of the UK's corporate governance frameworks (Cadbury 1992; Kondap & Singh 2011).

Finally, the recent Global Financial Crisis of 2008 provided a searching test of the resilience of some countries' corporate governance codes, prompting many to amend their codes of governance to avoid any recurrence of the problems that caused the GFC. Examples of these reforms include Kenya's publication of a new code of corporate governance practice for

publicly-listed companies in 2015, Australia's corporate governance principles and recommendations of 2014 and the USA's full CII corporate governance policies of 2013 (ECGI 2014). It is important to note that the corporate governance structure in a given country is principally determined by the nation's political, social, economic and regulatory framework (Davies & Schlitzer 2008; Peters & Bagshaw 2014). Differences between those frameworks explain why one company or country may adopt a corporate governance structure with variant emphasis on shareholders' or stakeholders' interest (Melyoki 2005). The following section explains the different models of corporate governance and their ideological differences and offers examples of major countries where they are practised. According to Ruparelia (2016), the current corporate governance in the EAC has evolved from international corporate governance regimes, which have evolved over a considerable time, as indicated in Table 2.1 below.

Table 2:1 Summary of major developments in Corporate Governance

Year	Development of corporate governance
Pre-1900	The origin of corporate governance can be traced to the creation of the registered company under the Joint Stock Companies Act of 1844 (in UK).
	Corporate governance frameworks began developing to protect companies from the actions of professional managers with the passage of the Limited Liability Act of 1855 (UK) to protect shareholders from debt beyond their investment.
1980s	Corporate governance gains prominence due to stock market crashes across the world and inability of corporate governance frameworks to prevent corporate failures.
1990s	Different corporate governance structures are adopted across the world. • Countries that followed civil law (such as France, Germany, Italy, and Netherlands) developed frameworks that focused on stakeholders • Countries that followed common law (such as USA, UK, Canada, Australia and New Zealand) developed frameworks that focused on shareholders' returns/interests.
1997	Commonwealth Heads of Government develop the International Corporate Governance Network to promote and coordinate research and development in corporate governance.
1999	Commonwealth Heads of Government establish Commonwealth Association for Corporate Governance (CACG), which developed CACG Guidelines – Principles for Corporate Governance in the Commonwealth

Year	Development of corporate governance
	The World Bank Group and OECD developed global Corporate Governance Forum.
1998-2000	Regional conferences held in Uganda in June 1998 and September 1999 to create awareness and promote regional corporate governance. • June 1998 conference: there is a resolution that each member state develops a corporate governance framework and code of best practice, with particular emphasis on harmonizing frameworks under the EAC. • September 1999 conference: the June 1998 resolutions are re-affirmed and the need for good corporate governance strengthened. • Uganda establishes the Institute of Corporate Governance of Uganda to formulate a national code of best practice for corporate governance. • Tanzania organizes the East African Regional Workshop on corporate governance early in the year 2000. • In Kenya, the Private Sector Initiative for Corporate Governance continues to liaise with Uganda and Tanzania towards the establishment of a Regional Centre of Excellence in Corporate Governance.

Source: Ruparelia (2016, p. 155)

2.3.1 Corporate governance models

This section discusses the four major models of corporate governance that explain the differences in corporate governance frameworks adopted by different countries around the world. These are the Anglo-Saxon, Japanese, Rhine and Latin models of corporate governance. The adoption of one, or a combination, of these models is largely influenced by the country's historical, legal or economic backgrounds (Maassen 1999). For instance, The Anglo-Saxon governance model of corporate governance has been adopted among the common law countries like Australia and New Zealand, due to the past relationship with the UK (Gakeri 2013; Maassen 1999; Tricker & Tricker 2008).

I. The Anglo–Saxon model

The Anglo-Saxon corporate governance model reflects a liberalist approach to corporate governance practice, as commonly exercised in the UK, Australia, New Zealand, Canada, South Africa and other Commonwealth countries (BPP 2007; Tricker & Tricker 2008). This governance model is common in developed countries which have an effective legal system and well-defined shareholder rights and responsibilities (Kwee, Van Den Bosch & Volberda

2011). The model emphasises the importance of shareholders' interests and sovereignty in the company decision-making processes, where the interests of shareholders, as company owners, is highly respected. This perception of shareholders' interests originated from the model's belief that a company belongs to its shareholders and hence should be used for creating wealth for them (Scott, J 1997). In this sense, shareholders are seen as the major stakeholders capable of influencing the company's key (financing, investment and dividend) decisions. Accordingly, the managers are seen as agents of shareholders, hired to help the shareholders achieve their primary objectives of wealth maximisation (Acharya, Myers & Rajan 2011; Jensen, Michael C & Meckling 1976). The corporate governance frameworks under this model thus tend to focus on the shareholders' interest of wealth maximization as the primary objective for the company existence (Auerbach 1980; Clarke 2004).

The ownership structure of companies under the Anglo–Saxon model of governance is generally widely dispersed (Roe 2003). This wide dispersion can be attributed to the existence of laws that protect the interests of both majority and minority shareholders (Denis & McConnell 2003). The Anglo-Saxon model is also characterised by a single-tier board system, with the company board comprising both the company executive and independent non-executive directors (Maassen 1999). Companies operating under the Anglo-Saxon corporate governance model tend to have fewer board members and are subjected to more rigorous disclosure requirements (Maassen 1999).

According to Melyoki (2005), the Anglo-Saxon governance model directly follows the agency theory assumptions regarding the need to separate company ownership and control as a means of maximising shareholders' wealth. Corporate governance under the Anglo-Saxon governance model thus focuses mainly on reducing principal–agent conflicts and their associated agency costs to increase shareholders' wealth (Fama & Jensen 1983). Companies using the Anglo-Saxon model of corporate governance are required to disclose detailed financial information in their annual reports and proxy statements for shareholders at the annual general meeting (AGM). In the USA and UK, for example, detailed disclosures are required of company's capital structure, board of directors or board nominees, board and executive remuneration, shareholders with an equity stake over five percent, any impending mergers, acquisitions or restructuring and information about the current external audit company (Maassen 1999; Melyoki 2005).

Furthermore, in the Anglo-Saxon governance systems shareholders have the right to appoint external auditors and elect the board of directors at the sitting of the AGM or at an extraordinary general meeting (EGM) (Denis & McConnell 2003). The board of directors are appointed to oversee the activities of a company. Their activities are determined by the powers, duties, and responsibilities delegated to them by shareholders. However, under the Anglo-Saxon governance systems, there are some exceptional circumstances in which shareholders have to make some key decisions, for example when a company requires a joint shareholders' decision with majority vote to make binding decisions, such as changing the company's articles and memorandum of association, or appointing external auditors (Maassen 1999). The Anglo-Saxon governance system also emphasises shareholders' consensus. For instance, it allows shareholders to make an input to the company through the AGM. Shareholders are allowed to suggest any important agenda item to be considered for the AGM in the form of a proposal, or veto any agenda item considered as less important before adoption at the AGM (Maassen 1999). While the Anglo-Saxon model of governance is characterised by a widely dispersed ownership (Weimer & Pape 2000), it recognises the rights of the minority and institutional investors alike. For instance, under the corporate governance in UK, companies with institutional shareholders (e.g. pension fund and insurance companies) are required to make consultation with institutional investors regardless of its equity stake before making certain key decisions (Code 2010). This provision gives such concentrated equity holders more rights than individual shareholders in the company decision making. Furthermore, institutional shareholders in UK have the powers to convene an EGM of shareholders to discuss an issue they consider as important for the company business, any time before the AGM (Maassen 1999). Overall, companies under the Anglo-Saxon governance model provide an environment that promotes the interests of shareholders, and free and fair competition (Clarke 2007).

The Anglo-Saxon governance system provides the basis for corporate governance framework in most Commonwealth countries such as the EAC member states. The EAC's listed companies adopted the Anglo-Saxon model of corporate governance similar to the UK, Australia and South Africa (Yabara 2012).

II.   The Japanese Model

The Japanese model of corporate governance came about as a result of the need to promote social capital among business stakeholders (Maassen 1999; Rubach & Sebora 1998).The

model has many distinctive characteristics which reflect key features of the Japanese business economy (Dore 1993). The Japanese model is grounded in stewardship theory, which views company managers as the stewards, and not the agents, of the shareholders (Dore 1993; Freeman 2010). According to the Japanese corporate governance model, a company is seen as a communal asset owned by a group of stakeholders, including shareholders, suppliers, customers, employee unions, banks, government and individual members of the public (Dore 1993).

Companies under the Japanese model of governance are expected to abide by strong industrial and public policies, which promote business networking known as *Keiretsu* (Dore 1993). There is less shareholder involvement and fewer external board representatives. Minority shareholders do not have a say in the company's corporate governance policies, given the absence of independent directors (Tricker & Tricker 2008). All major company decisions under the Japanese model depend on the main affiliated banks, the *keiretsu*, company management and the central government. The banks has significant authority in many companies, which gives them powers to influence their corporate governance policies (Dore 1993). The boards of directors are selected among internal stakeholders, such as the top management and the affiliated sponsors (like the bank). The tenure of the company board under this model of governance depends on the company's financial performance (Dore 1993; Freeman 2010). When there is prolonged poor company performance, an affiliated bank or members of the *keiretsu* can fire and hire a new company's top executive (s) or the board of directors (Dore 1993). The *keiretsu* network operates in such a way that each company has an affiliation to one main bank; however, if more than one bank has a good working relationship with a particular company, then that company is required to nominate the main affiliated bank to have an upper hand in its key decision making (Maassen 1999).

To avoid overlapping responsibilities between the banks in the *keiretsu,* the Japanese corporate governance model makes a clear distinction between the roles of the main affiliated bank and the other banks in the *keiretsu*. Among the responsibilities of the main affiliated bank are meeting the company's equity and debt capital requirements, providing technical assistance related to company financial matters, e.g. advice on equities and bonds, settlement accounts management, and provision of any related financial expertise required by the company (Gibson 2000). While this may create a monopoly for the affiliated bank, it is not

prohibited under Japanese corporate governance or corporate law, as is the case under the Anglo-Saxon corporate governance system (Cadbury 1992). Besides, the monopoly system among Japanese companies is necessary for the promotion of strong business ties between the affiliated bank and the company, via the sharing of skills and management expertise for the benefit of the entire business network (Gibson 2000).

The disclosure requirements under the Japanese corporate governance model are almost the same as those under the Anglo-Saxon model, except that they are more flexible in terms of the type of reports and the frequency of reporting (Dore 1993). For instance, under the Japanese corporate governance model, it is incumbent upon the reporting entity to provide the necessary information in annual reports and board papers on a semi-annual basis (Okiro 2014). Japanese companies are also required to provide information about their capital structure, including the ten largest shareholders, particulars of each director, including their remunerations, any pending mergers or restructurings, and any proposed memorandum and articles of association revisions, as well as details of the external auditors (BPP 2007).

As far as company decision-making is concerned, the boards under Japanese corporate governance model is responsible for all strategic decisions except those that require the joint shareholders' decisions at an AGM. For example, allocation of reserves, dividend payments, appointment of directors and external auditors, capital authorisation, changes in the articles and memorandum association or company charter, retirement bonus payments to auditors and changes in the directors' remuneration (Gibson 2000; Maassen 1999). According to Gibson (2000), the Japanese corporate governance system gives more primacy to insider stakeholders than to outside shareholders. Morck and Nakamura (1999) also maintain that the Japanese model makes the creditors rather than the shareholders more responsible for the company's corporate governance system, which means that Japanese companies yield lower returns for shareholders (Gibson 2000). However, according to Hoshi, Kashyap and Scharfstein (1991), the main strength of the Japanese model is its preservation of good relationships between shareholders and creditors, which ensures stable financing for the company.

The EAC listed companies do not entirely practice the Japanese model of corporate governance. However, some of the characteristics of the Japanese governance system can be present in companies that are being financed primarily by loans. In such cases, the financial institutions will influence the companies' corporate governance policies and practices especially board structure and risk management policies.

III.   The Rhine Model

According to BPP (2007), the Rhine model is mainly practised in Germany, Switzerland, the Netherlands, Austria, Italy, Belgium and some parts of France (Weimer & Pape 2000). Under this model, a company is viewed as a social institution (Pape 1999), and the corporate governance structures are based on the social capital concept of a company and stakeholder involvement (Rubach & Sebora 1998). The Rhine corporate governance model is exemplified by Germany's corporate governance system which is characterised by a two-tier board structure, comprised of the management board (Vorstand) and the supervisory board (Aufsichtsrat) (Maassen 1999). The management board is made up of the senior executive management, while the supervisory board is composed of shareholders and workers' representatives (BPP 2007; Maassen 1999). The management and the supervisory boards are discrete; no member of the management board is allowed to simultaneously serve on the supervisory board in the same company (Maassen 1999). Among the responsibilities of the supervisory board are the appointment of the management board, approval of major company decisions, and provision of guidance to the management board, while the management board is responsible for the daily running of the company (Hopt & Leyens 2004; Maassen 1999).

Maassen (1999) observes that the tenure of the supervisory board is fixed (by law) and cannot be changed by shareholders; hence, the board size and structure under the Rhine model of corporate governance are determined by the size of the company. In Germany, for example, shareholders of a small company are legally allowed to appoint all members of the supervisory board. However, in medium-size enterprises, employees are allowed to elect one-third of a nine-member supervisory board and the shareholders select the rest. Similarly, bigger companies (more than 2000 employees) are required to have at least fifty percent of members on the supervisory board selected from the employees (Hopt & Leyens 2004). The representation of both shareholders and employees on company boards builds a harmonious relationship between the shareholders, as the providers of capital, and the employees who can put into practice (or not) the effective decision making which enhances company financial performance (Rubach & Sebora 1998).

Furthermore, company ownership under the Rhine model is very concentrated (Mallin 2011). As under the Japanese model, the banks are the biggest shareholders in most listed companies, which gives them control over the company's corporate governance policies

(Rubach & Sebora 1998). Banks also act as the biggest source of companies' debt and equity capital (Baums 1994), and being the largest source of financing, they exercise significant control over company's decision-making as well as corporate governance policies (Gilpin 2001). According to Maassen (1999), there are fewer disclosure requirements under the Rhine model than in the Anglo-Saxon corporate governance model. German companies, for instance, are required to disclose their financial position on a semi-annual basis, not quarterly, as required under the Anglo-Saxon system in the USA. Other disclosure requirements include the management and supervisory board's remunerations plus lists of all shareholders with more than five percent of total company equity (Maassen 1999). Some company actions require special disclosures of approval from all shareholder. These include, the dividend payment decisions, ratification of the prior year's management and supervisory board's decisions, appointment of supervisory board members, appointment of external auditors, changes in the articles and memorandum of association or company charter, changes in the board remuneration policy, and information on company mergers and acquisition or restructuring decisions (Maassen 1999).

With a two-tier board system, the Rhine model provides sound governance structure with full involvement of the companies' key stakeholders such as employees, board of directors, and investors. The adoption of a Rhine model thus increase collaboration of the stakeholders (Mallin 2011). While all the EAC listed companies embraced a single-tier board system, corporate governance codes in the EAC emphasises collaboration between the board of directors, employees, and shareholders to enhance companies' financial performance (CMA, K 2002; CMA, U 2003).

IV.   The Latin model

The Latin corporate governance model is characterised by high family and state involvement in company policy formulation and strategy (BPP 2007). The model is dominant in countries such as Spain, Austria, Italy, Belgium, and France (Moerland 1995). The Latin model has a mix of characteristics from the Anglo-Saxon, Japanese and Rhine corporate governance models (Melyoki 2005).The French corporate governance system is a good example of the Latin model. The French government influences its corporate governance system by directing and controlling companies' economic activities. The tradition of high government involvement in the French economy goes back to 1945, immediately after World War II, when the French government took up the responsibility of rebuilding the country's broken

economy using civil servants and industrial managers. Since then the government has retained a firm grip on the economy, including corporate governance policies (Melyoki 2005). The French government supervises an economic system known as *dirigisme* in which the state owns majority shares in major companies which gives it a strong influence over investment policies (Melyoki 2005). Therefore, government exercises strong control because it owns majority shares in the financial services, insurance, car manufacturing and steel sectors as well as claiming monopoly position in sectors such as rail, public transport, mining and broadcasting, in addition to its indirect business influence through fiscal and monetary policies (Melyoki 2005).

As far as the board structure is concerned, the French legal system allows companies to opt for either a single-tier or a two-tier board structure, with an executive board and a supervisory board (Weimer & Pape 2000). Because of the presence of high government influence, there is a tendency for shareholders in countries under the Latin model of corporate governance to be less influential in company policies (Melyoki 2005). With majority ownership and control in the hands of the central government, most business strategic decisions depend on politicians (Melyoki 2005). The shareholders exercise limited rights in making decisions, especially where a majority vote is required to make decisions such as dismissal or appointment of a new board, which requires a shareholder vote (Weimer & Pape 2000). Additionally, Melyoki (2005) asserts that under the Latin governance model, stock markets play a minor role in determining a company's economic policies, due to high concentrated equity ownership by the state or by families. Small groups of shareholders comprised of rich family holding companies, own most companies within the Latin governance system. For instance, it is believed that on average, about eighty-seven percent of companies in Italy and forty-eight percent in France are owned by fewer than six shareholders, who are crucial in determining these companies' corporate governance policies (Weimer & Pape 2000).

The Latin corporate governance model of corporate governance can have an immense influence on governance developments. Some of its characteristics such as government and family influences are common in EAC countries. The EAC governments have a strong political influence on companies and hence can influence its board structure and its risk management policies.

Table 2.1 offers a comparative summary of the four different corporate governance models discussed in Section 2.3.

Table 2:2. Summary of corporate governance models

Characteristic	Anglo-Saxon	Rhine	Japanese	Latin
Market orientation	Market oriented	Network and insider-oriented	Network and insider-oriented	Networks and outsider oriented
Countries commonly utilising	Australia, Canada, Kenya, Uganda, USA and UK	Germany, Austria Switzerland, and Italy	Japan	France, Spain, Italy and Belgium
Perception of the company	Private ownership by shareholders, Focused on shareholder wealth maximisation	Institutional, for the benefit of all stakeholders	Institutional, for the benefit of all stakeholders	Institutional, for the benefit of all stakeholders
Board style	Single-tier board	Two-tier board (executive & supervisory board)	Single-tier board	Optional (in France) but in general one-tier board
Stakeholder(s)	Dispersed shareholders	Concentrated shareholders, mainly banks and employees	Concentrated ownership by banks and other financial institutions	Concentrated ownership by financial holdings, government and families

2.3.2   International corporate governance guidelines

The Organization for Economic Cooperation and Development (OECD) and the Commonwealth Association for Corporate governance (CACG) have developed the two main international corporate governance guidelines that are commonly used in many countries, including the EAC, as benchmarks for their codes of corporate governance (CMA, K 2002; CMA, U 2003). The EAC, in particular, developed its code of corporate governance from the OECD and CACG principles (Fulgence 2014; Gakeri 2013; Wanyama, S, Burton & Helliar 2009).

According to OECD (1999), the need to stimulate economic growth and development as well as preventing economic damages caused by the lack of sound corporate governance, or the presence of inefficient corporate governance systems, have motivated a number of countries to use international corporate governance structures to address global corporate governance challenges. At the helm of international corporate governance practice are the OECD and the CACG, being the main advocates of good corporate governance frameworks both for

member countries and for other nations around the world (Wanyama, S, Burton & Helliar 2009).

I.   The OECD Principles of corporate governance

The OECD is a unique forum wherein the governments of 34 countries work with each other, as well as with more than 70 non-member countries, to promote economic growth, prosperity, and sustainable development (OECD 1999, 2004, 2015). According to the (OECD 2015), good corporate governance is not an end in itself but a means of creating market confidence and business sustainability, which in turn create opportunities for companies to access funding for medium or long-term investment. Access to funding is very important for any growth-oriented company, like those in the EAC, and hence the OECD principles of corporate governance are ideal, in that they promote good governance, which in turn enhances capital market growth and development (Wanyama, S, Burton & Helliar 2009). The OECD principles also aim at improving stock exchange efficiency as well as protecting employment for the more than 200 million workers who are directly employed by the publicly listed companies around the world (OECD 2015).

The OECD governance principles were first introduced in 1999 for the benefit of OECD member states and later become an international corporate governance benchmark for countries all over the world (Jesover & Kirkpatrick 2005; Kirkpatrick 2005). Since then, they have twice been revised, in 2004 and 2015, to make them more relevant to prevailing global economic changes. In its current form, the code represents a global consensus on good corporate governance as a means of enhancing the economic vitality and stability of the member countries and those that subscribe to OECD codes as part of their corporate governance and good governance regime (OECD 2004, 2015). The code provides a set of good corporate governance practices for all subscribing countries or organisations, in order to achieve an equitable relationship between the company, its management, its shareholders and its other stakeholders. Compliance with the OECD principles of corporate governance thus ensures a fair working relationship between the company and its stakeholders, which results in improved market confidence as a source of economic growth and development (OECD 1999, 2004, 2015). Kirkpatrick (2005) suggests that the OECD principles of governance are relevant to all countries, regardless of their level of economic development and/or historical background. This is because they do not mandate a single model of governance (such as the Anglo-Saxon, the Rhine, the Japanese or the Latin), but encourage companies to put in place

corporate governance structures and systems that legally and socially bind the company with its stakeholders as a means of increasing company value from the stakeholders' point of view. The EAC codes of corporate governance hence reflect the OECD codes of governance principles regarding the fair treatment of shareholders, management and other stakeholders(CMA, K 2002; CMA, U 2003).

II.   The Commonwealth Association for Corporate Governance principles (CACG)

The CACG provides another example of an international code of corporate governance that has been adopted in the EAC (CMA, K 2002; CMA, U 2003; Fulgence 2014). The CACG was established in 1998, following the 1997 Edinburgh declaration by the Commonwealth Heads of States, with two main objectives: (1) to promote good standards of corporate governance and practices; and (2) to facilitate institutional development that assists in the promotion, education and dissemination of corporate governance standards (CACG 1999). The Commonwealth is comprised of 53 former British colonies that became independent in the 19th and 20th centuries. The Commonwealth has a combined population of about 1.7 billion people and the biggest network of international trade, representing about 25% of the world's trade (Okiro *et al.*2015). The major advantage enjoyed by the Commonwealth member states is their use of English as a common language, because it is also one of the most widely used business languages in the world (CACG 1999). The Commonwealth countries also share some common features such as democratic values, parliamentary structures, corporate governance structures, accounting practices and legal systems, all of which have evolved from UK models (Okiro *et al.*2015).

The CACG provides highly detailed corporate governance codes and best practices for the member countries' companies. The codes include fifteen major principles of governance, addressing issues such as company leadership style, board functions, strategic planning, company performance, compliance requirements , communication with stakeholders, accountability to stakeholders, the need for balance of power, internal control systems, management performance measurements, information technology, risk management, plus company going concern assessments and review (CACG 1999). These principles place considerable responsibilities on the board of directors to ensure the presence of excellent corporate governance framework in organisations. They also make the board of directors responsible for monitoring the implementation of good corporate governance, which protects the interests of all company stakeholders (CACG 1999).

2.3.3 Corporate governance in developing countries

According to Wallace (1990), developing countries are classified as those countries in the mid-stream of development. Most of these countries are found in Africa, Asia, South America, and the Middle East (Waweru, N 2014). The key feature distinguishing developing countries from developed countries is their relatively low level of economic, political and cultural development (McGee & Bose 2009; Waweru, Nelson Maina & Uliana 2005). Typical of most developing countries is poor economic development, caused by their lack of skilled manpower, which makes it difficult for companies to design and implement advanced business development policies (Waweru, Nelson M., Kamau & Uliana 2011). Similarly, most developing countries lack efficient stock markets, have a high record of poor shareholder protection and face higher government involvement in business processes, which makes it hard for companies to design and implement effective corporate governance systems (Rabelo & Vasconcelos 2002).

According to Tsamenyi, Enninful-Adu and Onumah (2007) developing countries face a host of structural problems, such as weak or non-existent stock exchange markets, high economic uncertainty , poor legal systems, lack of investor protection, and frequent government intervention, all of which act as hindrances to implementation of corporate governance. Other impediments to effective corporate governance in developing countries include the strong desires of concentrated ownership especially by the government and family members, which makes it hard for both policy makers and regulators to design and implement sound corporate governance framework that can foster company growth and economic development (Ndiweni 2008; Rabelo & Vasconcelos 2002).

2.3.4 Corporate governance in Africa

Until the early 19th century, corporate governance concerns raised by companies, practitioners and regulators in Africa were not regarded as very important (Okeahalam 2004). In fact, it was not until the late 1990's that companies in Africa started following some form of systematic corporate governance. Before then there existed few stock exchange markets or corporate governance regulatory institutions, hence few national corporate governance codes in African countries (Waweru, Nelson M., Kamau & Uliana 2011). According to Mans-Kemp (2014b), South Africa was the first African country to introduce corporate governance in 1994. By the end of 2000, a number of African countries had established their corporate governance and codes of good practice using South Africa's code of corporate governance as

a benchmark (Grandori 2004). To date, many countries, including Kenya, Uganda, Tanzania and Rwanda, have implemented governance codes, while others are continually changing theirs to reflect changes in the global economic environment (Munisi & Randoy 2013).

As in all developing countries, poor corporate governance practices among African countries have been cited as the main causes of their low economic growth and development (Hope 2008). The ineffectiveness of governance systems in African can be attributed to low levels of economic development which in turn are a result of high corruption indices, widespread illiteracy, and the lack of skilled workforces to design and implement robust corporate governance frameworks (Munisi & Randoy 2013). The levels of a country's economic development hence determine its degree of compliance with its corporate governance requirements (Wanyama, DW & Olweny 2013). Hence poor corporate governance compliance in Africa is arguably a result of poor legal and accounting systems and dysfunctional institutions, as well as a lack of business ethics necessary for corporate governance compliance (Kibirige 2014; Peters & Bagshaw 2014).

2.3.5   Corporate governance in East Africa

In the East African Community , the development of corporate governance started with the 1990's economic liberalisation among the EAC member states (Uganda, Kenya and Tanzania) a period in which many public enterprises became privatised as part of the World Bank's condition for continuous support for regional economic growth and development (Gakeri 2013; Wanyama, DW & Olweny 2013; Yabara 2012). Many Parastatals (Organisations owned or controlled wholly or partly by the government) that were initially owned by governments were wholly or partially sold to private investors as going concerns. Some of these parastatals, especially telecommunication companies, were too large to be funded out of their owners' private funds (Yabara 2012) and therefore had to look for alternative sources of funding beyond the owners' private contributions. Consequently, the privatised companies pursued the public listing option to meet their working capital requirements (Wanyama, DW & Olweny 2013). This led to an increase in the number of Initial Public Offerings (IPOs) on the East African Community Security Exchange Markets (EAC- SEM) at a time when there were no strong codes of corporate governance or good governance practices. By the early 1990s, many investors and companies still relied on the provisions of company law, some of which were quite obsolete, given that most of them had been enacted many decades earlier (Kibirige 2014). For instance, the Uganda Company's Act

(1961), a replica of the UK's Company's Act (1948) was changed in 2012 (Katto, Wanyama & Musaali 2014).

By the mid-1990s, Uganda, Kenya and Tanzania had formed Capital Market Authorities to regulate the activities of the East African Community Security Markets (EAC Security Markets). In 1997, a joint regulatory body known as the East African Securities Regulatory Authorities (EASRA) was formed, tasked with the responsibility of regulating the EAC Security Markets' activities as well as accelerating the EAC Security Markets' integration by harmonising the legal frameworks and market infrastructure and providing policy guidelines about the capital markets' growth incentives within the EAC (Yabara 2012). Meanwhile, in 2005, the EAC's economic integration had changed from a free trade zone to a customs union known as the East African Community Customs Union, which later became the East African Common Market (EAC- Common Market) in 2010. These transformations led to the emergence of corporate governance in the early 2000s among the EAC countries. Kenya was the first country in the EAC to introduce a code of corporate governance in 2002 followed by Uganda and Tanzania in 2003 (CMA, K 2002; CMA, U 2003). Rwanda introduced a code of corporate governance in 2010, whereas Burundi is without a stock exchange and hence does not have a code of corporate governance (RSE 2015b).

This study was carried out in the EAC with the aim of investigating the relationship between corporate governance indicators (gender diversity of the board, board independence, enterprise risk management and board size), company financial performance, comparing the corporate governance indicators before and after the operationalisation of the EAC- Common Market, identifying the impact of changes on EAC companies' financial performance and making recommendations of corporate governance indicators which could enhance company financial performance. This study adds to the relatively limited knowledge of existing corporate governance in developing countries, as opposed to the high number of corporate governance studies that have been carried out in developed regions such as Europe and the USA, which share similar institutional characteristics (Chen, Kelly & Salterio 2010; Gompers, Ishii & Metrick 2003). The majority of these studies have ignored the distinctive characteristics of listed companies in developing countries (Renders, Gaeremynck & Sercu 2010). Moreover, recent corporate governance studies on developing countries have ignored most African nations (Brennan et al. 2008). According to McGee and Bose (2009),

developing countries have special characteristics, such as ownership structures, whose effects on corporate governance policies need to be extensively studied, while Tsamenyi, Enninful-Adu and Onumah (2007) argue that corporate governance studies in developing countries have been limited and only focused on an individual country.

2.4   Measures of Company Financial Performance

Financial performance is a term used to measure company results, policies and processes in monetary terms (Margolis & Walsh 2001). Performance can be measured using a financial management tool, for example using accounting ratios such as return on equity or return on assets, which measure the extent to which a company has achieved its financial objectives over a given period of time using the ratios of company profits to its assets and equity respectively (El-Shishini 2001).

According to Lussier (2011), financial performance is influenced by the company's internal and external risk. It is therefore important to strengthen the company's internal control systems to manage and control most of the internal risks. However, the causes of external risk are often beyond the company management's control. For example, external risks can be caused by political, economic, or the social technological factors which are beyond the management's control (Ferreira & Otley 2009; Lussier 2011). It is the responsibility of the company management to identify, analyse and mitigate such risk factors by designing good corporate governance policies that can enable investors to realise their expected return on investment (Shleifer & Vishny 1997).

Furthermore, Jensen, Michael C and Meckling (1976) argue that company performance is the foundation on which the principal–agent relationship is built. The principal–agent relationship is derived from the agreement between principal (shareholder) and agent (manager), which gives the agent powers to use company assets to generate profits for the shareholder's wealth maximisation. This forms part of the manager's main task, ensuring that the company achieves good performance outcomes; failure to do so may result in termination of the principal–agent contract (Feltham & Xie 1994). Measuring company financial performance therefore helps the principal to evaluate the agent's contribution to the company's profitability over a specified period of time (Wild 1994).

According to Fama and Jensen (1983), companies' performance depends on agents' decisions. If managers are more motivated to maximise their personal benefits, they are likely to make poor decisions that result in poor company performance. For instance, the management of the defunct Enron and WorldCom put their personal interests before those of their company, which resulted in its calamitous failure (Claessens, S. & Yurtoglu 2013). Therefore, for a company to achieve maximum profitability, it must have a good corporate governance framework which ensures a degree of altruism in the executive management's decisions (Shleifer & Vishny 1997). Further, poor corporate governance structures can result in abuses of internal control systems (DeFond, Lim & Zang 2012). Company performance can be measured using accounting-based, market-based or non-financial performance measures. This study used a combination of accounting-based (ROA and ROE) and market-based (TBQ and PER) measures of performance. These measures have been widely used in previous corporate governance and company performance research as well as in finance and accounting research (Adegbite 2012; Ansong 2013; Bhagat, S. & Bolton 2008; Mans-Kemp 2014b; Okiro 2014).

2.4.1   Accounting-based performance measures

An accounting-based performance measurement involves the use of the accounting information to assess the extent to which a company has achieved its predetermined performance objectives. As the name suggests, accounting-based performance indicators are used to measure company performance using financial accounting data, mainly from the published company annual reports (Agarwal, Y 2013; Weber et al. 2012).

The use of accounting information to measure company performance was introduced in the 13th century after the discovery of double-entry bookkeeping systems by Venetian monks (Neely et al., 2007). At that time, the method was mostly used to measure the achievement of corporate strategic planning objectives, an approach subsequently known as "management by remote control" (Neely et al., p. 144). According to Baker and Anderson (2010) the now traditional accounting-based performance measures were later introduced as measures of performance. This was followed by the development of discounted cash flow techniques, such as net present value (NPV) and internal rate of return (IRR) by Fisher (1930) and Hirshleifer (1958) respectively. This was followed by the valuation method of Miller and Modigliani (1958, 1961) who postulated the capital structure model used in company valuation. Knight (1998) argues that most traditional accounting-based performance measures

were developed to help in the management's decision-making, accountability and budgetary control activities. Hengartner (2006) suggests that accounting-based performance measures are strong measures of performance because they provide reliable results, especially during period of economic crisis, and are relatively free from speculation, as compared to market-based valuation measures. Furthermore, according to Baker and Anderson (2010), accounting-based performance measures have the advantage of being directly linked to a company's financial survival.

On the contrary, several criticisms have been levelled against accounting-based performance measures. For instance, Eccles and Mavrinac (1995) contend that accounting-based measures of performance are essentially backward-looking and hence inappropriate in determining a company's future outcomes, while Kaplan, RS and Norton (1996) point out that accounting-based measures of performance are internally oriented, which leads them to ignore external environmental factors, such as market share, that are critical in determining the company's future performance. Similarly, Merchant (1998) suggests that the use of accounting-based measures leads to strategic myopia (short-termism), management's behavioural displacement, and dysfunctional behaviour in building budgetary slack and creative accounting. Similarly, Hofmann (2001) observes that accounting-based ratios such as ROA and ROE ignore key performance variables such as employee or customer satisfaction, which can be very important in determining a company's future performance. Companies which ignore such non-financial indicators will find it difficult to predict their future performance (El-Shishini 2001). To avoid the above limitations, this study used a combination of accounting-based and market-based performance measurements as its independent variables.

2.4.2 Market-based performance measures

Another common method of performance measurement commonly used in management, finances and accounting is to use market-based measures. These include market-based ratios such as market share, number of customers and the Tobin's q ratio (Kim 2015; Rossi, Nerino & Capasso 2015; Zagorchev & Gao 2015) and PER (Aik, Hassan & Mohamad 2015; de Aguiar, Pinheiro & Oyadomari 2014; Shah, Haldar & Rao 2014). Unlike accounting-based performance measures, these market-based measures use market value data to determine company financial performance (Eikelenboom 2005). This approach is commonly used in evaluating the future long-term performance of the company (Gentry & Shen 2010). The main advantage of market-based approaches over other methods of measuring performance is

that they are less prone to managerial manipulations or creative accounting (Mulsow 2011). The market-based measures of performance are also risk-adjusted, especially where the Capital Asset Pricing Model (CAPM) is used in calculating the company's market value (Mans-Kemp 2014b). Hence, it is believed that using market-based ratios like TBQ provides better measures of performance, which are more reliable, longer term-oriented and more risk-adjusted than accounting-based measures (Kim 2015; Li, SL & Tallman 2011).

However, according to Kremer and Nautz (2013), market-based measures are commonly affected by 'herding behaviour' effects i.e. the tendency of individual investors or groups of investors to respond to market forces at the same time and in the same ways. (Mans-Kemp 2014b). Such behaviour can increase market speculations, resulting in distortions within stock market prices as well as in company values (Bikhchandani & Sharma 2000; Kremer & Nautz 2013; Rizzi 2008). For instance, it is believed that in the lead-up to the 2008-2009 global financial crises in USA most investors, especially fund managers and financial institutions, adopted a type of herding behaviour which increased their risk appetite and prompted them to relax their credit policies in response to competitors (Kolb 2010). Consequently, financial institutions suffered a significant negative impact from herding behaviour when most investors simultaneously opted to sell their shares and withdraw their funds from banks in reaction to the aftermath of the global financial crisis. This restrained the liquidity positions of many banks and increased their risk of economic failure (Kolb 2010).

Given the disadvantages of both accounting-based and market-based performance measurements, Kaplan, RS and Norton (1996) recommend a mix of financial and non-financial performance measurements, while Hofmann (2001) and Tuan (2014) recommend the use of non-financial performance measures.

2.4.3   Mixed performance measurements using the Balanced Scorecard

The use of mixed performance indicators involves both financial and non-financial performance indicators, such as those used by Kaplan and Norton's Balanced Scorecard (Kaplan, RS & Norton 1996). Non-financial performance measures include customer satisfaction, employee satisfaction, company innovation, product quality, delivery time, attainment of strategic goals and production efficiency (Hofmann 2001; Melyoki 2005). The Balanced Scorecard uses a "four indicator approach" used by companies to track the success of their strategy implementation. The four performance indicators are:

- the financial perspective, which looks at key performance measures like the returns and operating income ratios (accounting-based performance measurements):
- the customer perspective, which is concerned with customer retention, customer satisfaction, and company market share (non-financial performance measures);
- the business process perspective, which measures costs and quality in the business processes (non-financial performance measures); and
- the learning and growth perspective, which provides measurements of employee satisfaction, employee retention and knowledge management (Kaplan, RS & Norton 1996).

All four indicators are interconnected, and if a company is to implement its strategy successfully, it must integrate all four to achieve maximum aggregate strategic benefits (Kaplan & Norton 1996). Hence, this approach is sometimes preferred to accounting-based or market-based measures because it is both inward and outward looking, and can be applicable in circumstances where accounting and market-based performance measures are not applicable (Hofmann 2001). According to Mooraj, Oyon and Hostettler (1999), many companies prefer the use of mixed approaches, such as the Balanced Scorecard, to measure their performance. The balanced scorecard approach uses both financial and non-financial performance measures to evaluate company performance (Dudin 2015; Northcott & Smith 2011; Thalassinos & Liapis 2011). It focuses on aligning business objectives with the overall strategy by translating the company vision into a set of measureable objectives (Kaplan, RS & Norton 1996; Mooraj, Oyon & Hostettler 1999).

The use of the balanced scorecard has a number of advantages. First, the approach provides a broad consideration of all business aspects, namely financial, internal business, customers and human resources. It also considers the interrelationships between different factors or elements, rather than just concentrating on the performance of one. Hence, by adopting the balanced scorecard approach, an organisation is able to continuously monitor its targeted goals and objectives (Kaplan, RS & Norton 1996). Furthermore, the use of the Balanced Scorecard approach to evaluate company success in achieving its objectives helps the company management to focus on long-term decisions, for the company's long-term benefits (Banker, Potter & Srinivasan 2000). Finally, the balance scorecard incorporates a number of non-financial performance measures, which are less susceptible to creative accounting than most accounting-based performance measures (Ibrahim & Lloyd 2011).

On the other hand, the balanced scorecard approach uses a large number of variables to measure performance, which makes it more cumbersome (Eccles & Mavrinac 1995). Secondly, the Balanced Scorecard approach uses non-financial performance measures by taking into account customer perspectives, learning, and growth perspectives, thereby encountering some problems such as a lack of standard units of measure. For example, it is difficult to quantify staff satisfaction or staff learning and growth, which makes it difficult to compare the performances of different companies or industries (Eccles & Mavrinac 1995). Also, the non-financial performance measures are discretional in nature and, when used as a means of determining bonus payments to management, can be manipulated to suggest good performance, in order to justify bonuses (Ittner, Larcker & Meyer 2003). Feltham and Xie (1994) identified three limitations of non-financial performance measures, especially when designing staff compensation schemes. Firstly, it is difficult to directly observe and quantify the actions and strategies implemented by an individual manager; secondly, it is hard to quantify the outcomes of an individual manager's actions at a given time, since the impact of his/her actions may extend beyond his/her time as the manager; and thirdly, some uncontrollable and unobservable events may influence the manager's actions in making decisions (Feltham & Xie 1994). Hence, in such circumstances it is recommended that a company uses financial performance measures to design its management compensation schemes (Said et al. 2003).

2.5 The relationship between corporate governance and company financial performance

In the light of corporate financial scandals such as the Global Financial Crisis of 2008/2009, there is an ever-increasing attention to corporate governance issues (Amba 2014). As investors look at developing economies to diversify their investment portfolios and maximize returns, they are equally concerned about governance factors that can minimise their risks. Other financial scandals that made corporate governance a topical issue include the one involving Enron and Arthur Andersen, which bankrupted many companies in the U.SA, the U.K and the rest of the world (Soltani 2014). It is believed that most financial scandals in the USA and Europe were caused by weaknesses in corporate governance practices (Grant, P & McGhee 2014). For example, poor corporate governance has been cited as the cause of Enron's audit fraud with its auditors Arthur Andersen, WorldCom's profit-boosting and managerial corporate stealing in Tyco (Claessens, S. & Yurtoglu 2013).

According to Berle and Means (1932), the absence of goal congruence between the company management and shareholders often results in wasteful use of company resources. This problem can be mitigated by corporate governance, which helps the company efficiently use its resources to maximise its profit, hence enhancing company value. Jensen, Michael C and Meckling (1976) suggest that improving performance and creating value can be achieved by paying greater attention to ownership structure and concentration as part of a company corporate governance policy, while Shleifer and Vishny (1997) identify many benefits of corporate governance, including superior performance and higher company value. According to Northcott and Smith (2011), corporate governance is a primary instrument in a company's financial success. A company's corporate governance framework integrates the company goals and those of its management, board of directors, shareholders and other stakeholders. Shleifer and Vishny (1997) propose that corporate governance provides a solution to the principal–agent conflicts by setting strategies for maximising shareholder wealth.

Furthermore, Zheka (2006) stresses that corporate governance is important for both the company and the nation. At the company level, the presence of corporate governance helps in streamlining the decision making process by defining the roles of the management and the board, which reduces potential principal- agent conflicts (Jensen, Michael C & Meckling 1976). While at the national level, corporate governance can help the country to achieve economic growth and development by creating a safe investment climate that attracts foreign direct investment (Brav et al. 2008; OECD 2004). This is one of the main reasons why many countries are putting a lot emphasis on developing their own corporate codes of governance or adopting international corporate governance guidelines such as those of the OECD (Fulgence 2014; Gakeri 2013). Heugens, van Essen and van Oosterhout (2009) assert that shareholders depend on the company's corporate governance (external and internal governance mechanisms) to enhance their return on investment. External corporate governance elements such as national legal systems play an important role in setting rules and guidelines within which company objectives can be pursued. These regulations also help the company to minimise principal–agent conflicts and their associated agency costs (Jensen, Michael C & Meckling 1976), thereby improving companies' financial performance. Similarly, internal corporate governance mechanisms such as gender diversity, board independence, board size and enterprise risk management can also help to improve the board

monitoring function and hence enhance companies' financial performance (Jensen, Michael C & Meckling 1976).

According to Arosa, Iturralde and Maseda (2013), the effectiveness of a company board and its impact on company behaviour is one of the most studied issues in corporate governance literature. Most literature about corporate governance has concentrated on three main areas of the board: (1) gender diversity of the board (2) board independence, and (3) internal structure and functioning (John & Senbet 1998). This study adds to the extant empirical literature by analysing the relationship between corporate governance indicators and company financial performance using four key corporate governance indicators, gender diversity of the board, board independence, enterprise risk management and board size as the study's independent variables.

All four variables (board gender diversity, board independence, enterprise risk management and board size) look at the characteristic of the company board, which is important for the company's corporate governance framework. For instance, the importance of the board of directors was highlighted by Jensen, Michael C and Meckling (1976)'s agency theory, which proposed that directors provide monitoring and control of the company's strategic direction (Fama & Jensen 1983), and if their monitoring is well implemented, the company's performance will be enhanced, resulting in shareholder wealth maximisation (Mattingly 2004). Fama and Jensen (1983), further state that the board of directors plays a major role in ensuring an effective corporate governance framework, which reduces principal–agent conflicts as well as their associated agency costs (Acharya, Myers & Rajan 2011).

The board is the main internal organ of an organisation that is responsible for corporate governance policy design and implementation. It is responsible for the supervising, advising and networking with all company stakeholders, while safeguarding the shareholders' interests (Baysinger & Butler 1985; Blaga 2011; Guest 2008; Jackling & Johl 2009). However, the main function of the board of directors is to manage, monitor and control company activities to increase the shareholders' wealth (Rezaee 2008). To achieve this objective, the board has to put in place a sound financial management system (Moroney et al. 2014) as well as a systematic corporate governance policy (Rezaee 2008) to control the activities of company executives (Baysinger & Butler 1985).

According to Adams, R, Hermalin and Weisbach (2008), while corporate boards may not be responsible for the daily operations of the company, they are legally liable for any material fraud or misappropriations by the executive management or staff. This was deemed the case in the Enron, WorldCom, and Parmalat scandals, where directors were held liable for fraud and penalised accordingly. For instance, The Enron directors were fined U$ 168 million, of which $13 million came out of personal liability while WorldCom directors paid U$ 36 million, of which $18 million was out of their individual pockets (Adams, R, Hermalin & Weisbach 2008).

A number of studies have been carried out on corporate governance in the EAC, particularly focusing on board characteristics and company financial performance. These studies have examined the relationships between different elements of corporate governance and company financial performance, and found divergent results (Abor & Fiador 2013; Barako & Brown 2008; Fiador, Abor & Abor 2012; Gitundu et al. 2016; Morekwa Nyamongo & Temesgen 2013; Waweru, N 2014). Gitundu et al. (2016) studied the effects of ownership and corporate governance reforms on the efficiency of privatised companies and discovered that the presence of independent non-executive directors and women directors positively influenced company efficiency, while Barako and Brown (2008) discovered that the presence of female and independent directors greatly improved banks' financial disclosures. Similarly, Morekwa Nyamongo and Temesgen (2013) contend that while the existence of independent board directors enhances company performance, larger board sizes have a negative impact on the performance of Kenyan banks. Kyereboah-Coleman (2007) studied corporate governance and shareholder value maximisation in Africa and discovered that large boards enhance corporate performance and shareholder value maximisation, but was unable to draw any conclusions about the impact of the independence of the board on company performance.

2.5.1   Board gender diversity and company financial performance

The presence of female directors on boards is often discussed in the literature around the world (Konrad, Kramer & Erkut 2008). Many researchers, investors and regulators have shown a growing positivity about the influence of the gender diversity of the board on company performance (Adams, Renée B & Funk 2012; Adams, Renee B, Gray & Nowland 2011; Ahern & Dittmar 2012; Broadbridge et al. 2006; Eckel & Grossman 2008; Fawcett & Pringle 2000; Giovinco 2014). This enthusiasm was initially voiced in the late 20th century by gender activists such as Kanter (1977) whose publication "Men and Women of the Corporation" raised many questions regarding the role of women in the corporate arena.

Kanter (1977) advocated an increased number of females in all sections of the organisation, as well as affirmative action by recruiters and the adoption of policies that favour female board directors. Consequently, by the end of the 21st century, many countries had enacted laws to increase the number of female directors on board (Bohren & Strom 2010; Lerner & Oberholzer 2015; Reguera-Alvarado, de Fuentes & Laffarga 2015). For example, in 2003, Norway introduced the board-gender quota regulation requiring all listed companies to have a forty percent female board representation by 2008 (Lerner & Oberholzer 2015). This prompted other countries such as Belgium, Finland, France, India, Italy, the Netherlands, Spain, and Belgium to adopt the same law (Lerner & Oberholzer 2015) and Germany subsequently passed similar regulation, requiring thirty percent of board seats to occupied by female directors before the end of the 2016 (Lerner & Oberholzer 2015).

According to Carter, D. A. et al. (2010), the board's monitoring and control functions are fundamentally linked to agency theory which suggests that board diversity enhances board independence, which is required to effectively monitor and control the executive management's decisions so as to reduce principal–agent conflicts (Ang, Cole & Lin 2000). The presence of female directors is thus deemed to increase board independence and improve company "disclosure practices" (Barako & Brown 2008, p. 321). Moreover, it is acknowledged that gender diversity on boards can strengthen their monitoring function (Adams et al. 2011) because female managers tend to have better monitoring skills, such as independent thinking, than their male counterparts (Adams et al. 2011).

Hambrick (2007) used the 'upper echelons' theory to explain the influence of gender diversity on the board and company financial performance. According to the upper echelons theory, boards of directors have different cognitive frames, which in turn, influence their companies' financial performance. These cognitive frames, i.e. their information-seeking, evaluation and processing, depend on the directors' experiences, knowledge, and values (Hambrick 2007). Such experiences, knowledge, and values shape the directors' information processing and decision-making capacities, and, eventually affect the company's financial performance. Recruiting female directors onto a board is thus perceived as a means of expanding the available pool of cognitive frames, simply because female directors tend to have a broader knowledge and academic background than their male counterparts (Carter, D. A. et al. 2010; Hillman, Amy J, Cannella & Harris 2002). Female directors are also more

likely to have better marketing and sales skills (Groysberg & Bell 2013). They are also likely to bring different experiences and knowledge to the boardroom, given their different pathways to directorship positions: they are not likely to have been senior executives, such as CEO's, before being appointed as directors and probably have more limited entrepreneurial experiences (Hillman, Amy J, Cannella & Harris 2002; Singh, Terjesen & Vinnicombe 2008). Female directors might also bring a lot of experience to the board by virtue of their activities outside of their corporate work; as the gender gap in incomes reduces (Kopczuk, Saez & Song 2010), women have come to exert more influence in domestic purchasing decisions (Phipps & Burton 1998). Hence, female directors may bring to boards a deeper understanding of consumer markets (Campbell & Minguez-Vera 2008; Carter, David A, Simkins & Simpson 2003). Moreover, Groysberg and Bell (2013) study of the differences between female and male directors found that female directors have greater interests in philanthropy and community service than their male counterparts, which seem likely to translate into good ideas that may be more relevant to companies' multiple stakeholders (Groysberg & Bell 2013).

Reguera-Alvarado, de Fuentes and Laffarga (2015) study of 125 Madrid Stock Exchange listed companies discovered that increasing the number of female directors is positively related to companies' economic performance and recommended an increase in female directors in Spanish boardrooms to increase companies' economic performance. Their presence would hence bring about new ideas, views and skills on the company boards. Furthermore, Bohren and Strom (2010) studied Norwegian policy on corporate governance regarding the gender quota system. The study aimed at analysing the economic rationale for board quota regulation in Norway, the first country in the world to implement the gender quota system (Adams et al. 2011). In their analysis of the relationship between company value and the use of employee directors, gender diversity, and board independence, Bohren and Strom (2010), discovered that companies with lower gender diversity created more value for their owners than those with higher gender diversity. They thus advised corporate governance regulators not to enforce a gender quota system but rather to allow companies to make a choice of their directors based on each potential director's ability to add value to the company using his/her skills and knowledge (Bohren & Strom 2010; Carter, D. A. et al. 2010).

According to Loyd et al. (2013), a more diverse board tends to engage in deeper discussions and to share different knowledge and information compared to homogeneous boards, and they concluded that gender-diverse boards are more motivated to engage in deep and extensive discussions for the benefit of the company's financial performance. Besides, female directors tend to place a higher value on tolerance, benevolence, and interdependence (Adams, Renée B & Funk 2012) which may help to bring forth better information and views, and to stimulate more teamwork among all board members. Bart and McQueen (2013) suggest that female directors are more likely to adopt a cooperative decision-making approach that results in fairer decisions when competing interests are at stake, while Peterson and Philpot (2007) suggest that male directors are more likely to base their decisions on traditional ways of doing business, rules and regulations. Therefore, diversity of board composition may elicit different perspectives which enhance company financial performance (Miller, T. & Triana 2009). Furthermore, a more gender-diversified board means that the company is likely to have a broader understanding of the industry and of the companies' multiple stakeholders (Carter, David A, Simkins & Simpson 2003).

Adams, R. B. and Ferreira (2009) studied the relationship between board diversity and company financial performance in the USA and discovered a negative relationship between gender diversity and company financial performance. However, the study also found that gender-diverse boards provide better company monitoring. Accordingly, they recommended that companies increase gender diversity on their boards to improve both the executive and the board's accountability, and to increase board meeting attendance. The study concluded by encouraging companies, especially those with weak corporate governance frameworks, to adopt gender quotas so as to improve the board's monitoring and control function and hence company financial performance (Adams, R. B. & Ferreira 2009). Carter, D. A. et al. (2010) also documented a negative relationship between board diversity and company financial performance in listed companies in the USA. Their study concluded that neither ethnicity nor gender diversity positively influences a company's financial performance. Likewise, Francoeur, Labelle and Sinclair-Desgagne (2008) studied the relationship between gender diversity and company performance by examining the contribution of women directors and senior management to company financial performance. They discovered that companies that operated in difficult environments produced less return attributed to female board directors. Although the participation of female directors did not seem to make a difference in this

regard, companies with a high proportion of women in both their management and governance systems generated enough value to keep up with normal stock-market returns. Hence, they concluded by advocating a smaller proportion of female directors on the board as a means of generating higher return on investment (Francoeur, Labelle & Sinclair-Desgagne 2008).

Gender diversity was initially considered merely as a public relations exercise by many companies wanting to demonstrate their support for gender equality (Kanter 1977), but it has nowadays been acknowledged as one of the main drivers of enhanced company performance (Bohren & Strom 2010; Giovinco 2014). Consequently, many countries have introduced gender quota systems aimed at increasing female director representation on boards as a means of improving company performance. However, according to Giovinco (2014), there is limited evidence to suggest that gender quota systems do in fact enhance company performance. Some commentators have suggested that the dominance of male directors in Lehman Brothers' board structure was partly to blame for its bankruptcy during the 2008/2009 GFC. However, there is no conclusive evidence to suggest that the GFC would not have been so ruinous if there had been more females than male directors on the board of victim companies such as Lehman Brothers (Adams, Renée B & Funk 2012; Huffington 2003; Morris 2009). Consequently, many countries have not legally mandated board gender quotas. For instance, no EAC countries are required by law to have a gender quota in their board rooms, though it's highly recommended by the EAC's corporate governance codes (CMA, K 2002; CMA, U 2003).

2.5.2   Board independence and company financial performance

An independent board is one whose members are predominantly outside directors (i.e. non-executive directors) who are not affiliated to the company through any commercial dealings, thus avoiding potential conflicts of interests (CMA, K 2002). Board independence is commonly measured as the proportion of outside directors to total directors at a financial year-end (Barontini & Caprio 2006; Moldasheva 2015; Tshipa 2015; Youssef & Bayoumi 2015). Practically, there is always inherent conflict of interests between companies owners or principals, and their managers/agents (Fama & Jensen 1983). The presence of a higher proportion of non-executive directors provides better monitoring of the company to mitigate principal–agent conflicts (Jensen, Michael C & Meckling 1976). Agency theory holds that the bigger the number of outside directors, the better their monitoring function, and thus the

higher the company performance and value (Meyer & de Wet 2013). Consequently, most corporate governance codes, developed at either country or international level, require the board to be composed of both inside directors (who are managers at the same time) and independent, outside directors (non-managers) (Cadbury 1992; CMA, K 2002; OECD 1999, 2004, 2015). According to De Andres, Azofra and Lopez (2005), each of these categories of directors has different attitudes to company performance which can create conflicts. This is the reason why agency theory advocates an independent board of directors, to protect shareholders from management's self-interests (Jensen, Michael C & Meckling 1976) and to maximise the company's financial performance (Fama & Jensen 1983; Shleifer & Vishny 1997).

The extant literature on corporate governance and company performance provides varying opinions about the relationship between corporate governance and company performance. This is particularly so with the most recent studies from the developing countries; they indicate positive, negative or no relationship between the presence of independent directors and company financial performance (see Agyekum, Otchere & Bedi 2014; Moldasheva 2015; Siwadi, Miruka & Ogutu 2015; Soliman, Ragab & Eldin 2014; Tshipa 2015; Youssef & Bayoumi 2015). According to Fama and Jensen (1983), having a majority of independent, non-executive directors on the board enhances the board's effectiveness in monitoring and control functions, thus minimising the possibility of fraudulent acts on the part of the executive, which reduces the company's operating risks. Similarly, Forker (1992) claimed that having independent non-executive directors on company boards improves the quality of financial disclosure, thus enhancing both investor confidence and company performance. This view was maintained by Mattingly (2004) who suggested that outside directors exercise a higher level of monitoring and control over the management's activities, because they are not part of the company's day-to-day operations. Therefore, if the monitoring function of the board is well implemented, it will improve company's financial performance (Fama & Jensen 1983; Porter 2008). However, the board requires a high level of independence for the company to be monitored effectively and achieve better financial performance (Bhagat, S. & Bolton 2008; Haniffa, R. & Hudaib 2006).

Furthermore, Youssef and Bayoumi (2015) study of the relationship between corporate governance and banks' financial performance in Egypt, using a sample of thirteen banks,

concluded that board independence has a significant effect on financial performance. Equally, Soliman, Ragab and Eldin (2014) used a sample of Egyptian listed companies and identified a positive relationship between board independence and company financial performance. A related study of listed companies was carried out in South Africa by Tshipa (2015) with the aim of exploring whether better-governed companies exhibited better financial performance than poorly governed ones. It was discovered that the presence of independent non-executive directors positively influenced the companies' financial performance. Siwadi, Miruka and Ogutu (2015), also examined the influence of board independence on company financial performance in Zimbabwe and found a significant positive relationship. Agyekum, Otchere and Bedi (2014), used Ghana Stock Exchange listed companies to examine the relationship between corporate governance and company performance. Being the first study in Ghana to test the relationship between corporate governance and company performance, using the cash flow approach and the modified Jones model in estimating total accruals as a measure of earnings management, the study discovered a significant relationship between board independence and company financial performance (Agyekum, Otchere & Bedi 2014).

The Cadbury Report (1992) stated that the presence of non-executive directors on the board enhances company performance. This proposition was adopted by CMA in 2003 as part of the current corporate governance framework (CMA Kenya 2015). Consequently, all listed companies on the NSE are required to have non-executive directors occupying at least thirty-three percent of their board seats. This serves to ensure proper checks and balances within organisations, which helps in protecting the interests of the investors, executive management and staff (Petrovic 2008). Other studies in Kenya in support of this proposition include that of Gitundu et al. (2016), who studied the effects of ownership and corporate governance reforms on the efficiency of privatised companies in Kenya. The study established that independent non-executive directors positively influenced the company efficiency, while Morekwa Nyamongo and Temesgen (2013) contend that the existence of independent board of directors enhances the performance of banks in Kenya. Agrawal and Knoeber (1996); Bhagat, S. and Bolton (2008); Klein (1998); Yermack (1996) found a negative relationship between board independence and company financial performance, while Bhagat, S. and Bolton (2008) suggest that board independence is negatively related with financial performance. The authors criticised companies that increase the number of non-executive board of directors, with the hope of achieving higher financial performance, as being misguided. This stance is

supported by Hermalin and Weisbach (1991), who suggested that outside directors are only effective at monitoring and disciplining managers of poorly performing companies, not for enhancement of company performance, because the presence of independent non-executive directors only enhances the board's monitoring function which may only help in safeguarding the shareholders' interests (Fama & Jensen 1983).

On the contrary, Fosberg (1989) discovered no relation between the percentage of non-executive directors and various company performance measures, while Hermalin and Weisbach (1991) and Laing and Weir (1999) found no significant relationship between board composition and company performance. According to Yermack (1996), the proportion of non-executive directors does not significantly affect company financial performance. Board independence therefore represented one of the study's independent variables, calculated as the ratio of non-executive directors to total number of directors (Anderson & Reeb 2003; Barontini & Caprio 2006). The function of this variable is to act as a measure of the board's monitoring capacity, in order to analyse its influence on the company's financial performance.

2.5.3   Enterprise risk management (ERM) and company financial performance

According to Sadgrove (2016), all companies, in one way or another, face risks which challenge their business; to be successful in business, they have to adopt good practices and structures that address those strategic, financial, and operational risks. Until recently, many companies adopted the traditional "silo" based approach to managing risk (Spira & Page 2003), that is to manage different types of risk individually, most commonly by companies' business units or departments managing their own respective risks. For example, the finance department may handle interest rate and currency risks, while the operations department manages quality and safety risks. Under a silo risk management approach, each functional department develops its own tools and practices to manage its particular risks, independent of other departments or sections (Sobel & Reding 2004). However, because of the increased economic volatilities in the global economy , many companies have realised the need for a more integrated and cohesive approach to risk management, known as Enterprise Risk Management (ERM) (Quon et al, 2012). ERM suggests that companies should address all their risks systematically and coherently, instead of managing them individually (Bromiley et al. 2015). Most professional associations, regulators, stock exchanges, rating agencies,

legislative bodies, international standards organisations and consultants have strongly urged companies to adopt ERM (Arena, Arnaboldi & Azzone 2010).

The need for ERM became very prominent following a series of corporate scandals in the United States in the 1990s (Khan, MJ, Hussain & Mehmood 2016). The resultant costs of these scandals prompted investors and regulatory bodies to improve company risk management practices, and consequently, the Committee of Sponsoring Organisations of the Tredway Commission (COSO) in the USA initiated a report titled "Internal Control Integrated Framework" in 2002, calling for an integration of risk management practices (Khan, MJ, Hussain & Mehmood 2016, p. 2). This was followed by the Sarbanes Oxley Act of 2002 which was enacted after the high-profile financial scandals of 2002 involving Enron, WorldCom and Tyco which eroded investor confidence in the USA (Leventis, Jallow & Dimitropoulos 2012). In 2004, COSO published its famous Enterprise Risk Management Framework for the first time and proposed a complete definition and a formal implementation framework for ERM.

According to the COSO internal framework, ERM is defined as " … *a process, affected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives"* (Moeller 2007, p. 50). Aguiló and Aguiló (2012) defined ERM as an integrated risk management system that focuses on a range of uncertain contingencies likely to affect company performance. ERM provides a framework for companies to balance their threats (downside risks) while exploiting the opportunities (upside risks) in a holistic manner (Agarwal, R & Ansell 2016). A company can use its ERM to achieve its strategic objectives by concentrating on the interrelatedness of all its risks (COSO 2004). Many companies consider ERM to be one of the most efficient approaches to dealing with variability in market situations, and it has become an important element in governance risk and compliance (Renn & Walker 2008).There is growing belief among managers and board of directors regarding the ability of ERM to mitigate market uncertainties (Frigo & Anderson 2011). Furthermore, Lam (2000) points out that ERM received much attention in the past because of previous scandals, which indicates the dangers of poor risk management. Manab, Kassim and Hussin (2010) attribute the increase in application and implementation of

the ERM in many organisations to successive global scandals, corporate failures, and fraud, believed to have been caused by poor corporate governance practices, as demonstrated by the weaknesses in their risk management systems (Manab, Kassim & Hussin 2010; Tang & Chang 2014; Windsor 2009). Similarly, Hoyt and Liebenberg (2011) attributed the increase in the use of ERM to investors' high demands for improved company risk management following numerous financial scandals like Enron, WorldCom, Parmalat and the 2008-2009 GFC (Aguiló & Aguiló 2012; Grant, P & McGhee 2014; Miller, KD & Waller 2003). Rosen and Zenios (2006) argue that the motivation for introducing ERM originated from external pressures on corporate governance, which made it difficult for companies to have a successful ERM system without full compliance with corporate governance practices. Therefore, the presence of an effective corporate governance and ERM system in a company reduces business risk (risk of making little or no profits), thus enhancing company financial performance (Sobel & Reding 2004).

Sobel and Reding (2004) identified the main impetus for implementing an ERM as the need to increase company performance and enhance shareholder value. The ERM system thus helps the company to minimise risks while maximising shareholder value (Beasley et al., 2008). The adoption of ERM helps a company to manage its risks holistically at a lower cost than under the traditional silo system (Beasley, M, Pagach & Warr 2008; COSO 2004; Pagach & Warr 2011). However, the silo system of risk management can be expensive because it involves managing of every single risk individually, which creates a lot of duplication and inefficiencies due to poor coordination between the different departments or sections responsible for managing risks (Fabozzi & Drake 2009). Furthermore, it is believed that an effective ERM system improves company resource allocation and reduces unnecessary expenditures on risk management (Quon et al, 2012; Sobel & Reding 2004). This helps the company to identify areas of high risk and use the necessary risk management policies to avoid future losses (Quon et al, 2012). However, a company's approach to risk management depends on its risk appetite i.e. the amount of risk it is willing to accept at any given time (Beasley, M, Pagach & Warr 2008; Pagach & Warr 2011). The level of risk appetite is also determined by its risk tolerance, which is the amount of risk a company is prepared and able to accept in its day-to-day operations (Hoyt & Liebenberg 2011). Hence, in consideration of its risk appetite and risk tolerance levels, a company designs its corporate governance strategy to protect itself against intolerable risk (Hoyt & Liebenberg 2011).

According to Nocco and Stulz (2006), both ERM and the traditional risk management systems use some similar approaches to risk management, such as the use of insurance or financial hedging techniques as a means of transferring risk. The main difference, however, lies in their respective operational approaches to managing risk; the traditional risk management systems are more decentralised, and company risks are managed by their respective departments or business units, while with ERM, company risk management is centralised under one responsible department (Hoyt & Liebenberg 2011). This department may be headed by the chief risk officer or the risk management officer (Quon et al, 2012).

Additionally, Nocco and Stulz (2006) identified the presence of a chief risk officer as the key to a company's effective ERM implementation. The chief risk officer is responsible for handling strategic policies against factors that may affect the company's reputation and operations, or hamper the success of the corporate strategy (Nocco & Stulz 2006). At present, the role of the chief risk officer is starting to be recognised in the governing structures of many listed companies, especially banks, energy companies and other multinational companies with diversified international activities and operations (Nocco & Stulz 2006). As a senior position, the chief risk officer may report to the board, the chief executive officer or, in some companies, the chief financial officer (Lam 2000). According to Quon, Zeghal and Maingot (2012), under the traditional risk management system, the role of a the chief risk officer was largely non-existent, and where it existed it was at a junior officers' level, and was responsible only for handling insurance policy issues or at times hedging foreign exchange or interest rate risks. A company may appoint a chief risk officer for different reasons (Liebenberg & Hoyt 2003; Pagach & Warr 2011). According to Liebenberg and Hoyt (2003), companies with higher financial risks due to higher leverage tend to appoint a chief risk officer to improve on their performance while Pagach and Warr (2011), submitted that companies with high leverage and high volatility in equity prices appoint a chief risk officer to streamline their risk management and improve company performance.

The growing research into ERM does suggest, however, that it has some limitations; for example, many conventional finance and accounting experts (see Lintner 1965; Sharpe 1964) have challenged the need for ERM, arguing that investors are less concerned about company's total risks than about systematic risk or market risk or un-diversifiable which

cannot be eliminated by diversification (Sharpe 1964). Using ERM to manage the company's total risks (both systematic and unsystematic) is therefore seen as a waste of valuable resources (Lintner 1965; Sharpe 1964). Furthermore, according to Bromiley et al. (2015), the success of ERM in managing company risk is more of a myth than a reality. Prior to the 2008-2009 GFC, most professional bodies, stock market regulators and consultants strongly promoted the use of ERM for company risk management. Consequently, many companies adopted ERM as a means of managing their aggregate risks. However, after the 2008-2009 GFC some of them, such as Countrywide Mortgage, identified in 2007 by the Institute of Internal Auditors as an exemplar of ERM, faced bankruptcy in 2008 (Bromiley et al. 2015, p. 1). This study used ERM as one of the elements of corporate governance. The researcher assumes that the presence of ERM among the EAC's listed companies results in better company performance. ERM is measured by the presence of a chief risk officer and an audit and risk management committee of the board (Hoyt & Liebenberg 2011)

2.5.4   The board size and company financial performance

The board of directors has two major functions, namely advising and monitoring the management (Nguyen, Pascal & Rahman 2015). According to Dalton, Dan R and Daily (1999), large board sizes offer better advice to management, which is consistent with the resource dependency theory's assumption that companies aim to attract directors who bring valuable resources to the company(Johnson, Daily & Ellstrand 1996). Hence, Goodstein, Gautam and Boeker (1994) posit that board size reflects the company's ability to attract resources from its environment. Likewise, Coles, Daniel and Naveen (2008) argue that a larger board size is feasible for larger companies with complex operations which require more advice and monitoring by the board, so such companies will require more directors than a small company. Firstenberg and Malkiel (1994) postulate that small boards are more effective than larger ones because they encourage more board participation, focus, interaction and debate, and that small board are less likely to face free riding problems. However, according to Arosa, Iturralde and Maseda (2013), optimal board size depends on company characteristics. For example, Small and Medium Enterprises (SMEs) or family businesses tend to have fewer directors than multinational organisations (Gabrielsson 2007). However, Jensen (1993) suggests that both large and small board sizes have advantages and disadvantages.

This study seeks to identify the influence of board size on company financial performance in the EAC listed companies. It has been argued that a company's board size influences its

performance (Dalton, D. R. et al. 1999; Jensen, M. C. 1993; Lipton & Lorsch 1992; Malik et al. 2014; Yermack 1996). Coles, Daniel and Naveen (2008) submit that larger boards are more effective in driving company performance because they bring together a pool of expertise from diverse directors, which helps the company to improve its monitoring capacity and enhance its financial performance. The wider knowledge of a larger board can also be utilised by the company in making some strategic decisions, which can drive company performance (Dalton, D. R. et al. 1999).

On the contrary, other schools of thought view larger boards as less effective in enhancing company performance. They hence conclude that board size is negatively associated with company performance (Cheng 2008; De Andres, Azofra & Lopez 2005; Eisenberg, T., Sundgren & Wells 1998; Rashid, A et al. 2010; Rodríguez-Fernández 2015; Yermack 1996). It is believed that a bigger board faces problems of social loafing and high coordination costs that affect company value (Jensen, M. C. 1993; Lipton & Lorsch 1992; Yermack 1996). Moreover, Cheng (2008) suggests that larger boards reduce company value and are not necessary for all categories of companies and industries.

According to Dalton, D. R. et al. (1999), board size is one of the most important corporate governance elements to influence board's functionality. However, bigger boards tend to lack cohesion which limits the ability of the directors to connect with each other, which makes it difficult for the board to reach a consensus, due to the differences in opinions (Lipton & Lorsch 1992). Furthermore, according to Muth and Donaldson (1998), a large board makes it hard for an organisation to take quick decisions, because it takes the executive management more time and effort to achieve a consensus decision. This can be exacerbated by the poorer communication and coordination that is characteristic of larger boards (Cheng 2008; Jensen, M. C. 1993). According to Cheng (2008), having large numbers of directors on the board increases the agency cost. Lipton and Lorsch (1992) identified dysfunctional behavioural norms and higher monitoring costs associated with a large board. Goodstein, Gautam and Boeker (1994) submitted that a big board faced the problem of poor group cohesion and higher levels of internal power struggles and bickering, which may hinder the board in carrying out its advisory and monitoring functions (Nguyen, Pascal & Rahman 2015). Furthermore, according to Bonn, Yoshikawa and Phan (2004), a large board is believed to be more sceptical in making strategic decisions than a small one, which will inhibit the

company's value maximisation. This makes large boards more symbolic in nature but less competent in facilitating good management practices (Hermalin & Weisbach 1991). However, there is no standard, optimal board size. Lipton and Lorsch (1992) suggest an optimal board size of 8 to 9 directors while Jensen (1993) suggests 7 to 8. It is important to note that beyond an optimal board size, board's inefficiencies will outweigh its advantages, leading to poor company performance (Jensen, M. C. 1993; Lipton & Lorsch 1992; Yermack 1996). The researcher adopted the agency theory's assumptions, which suggests that a large board size reduces company performance and increases the principal-agent conflicts, agency costs and free rider problems (Jensen, M. C. 1993; Yermack 1996). Large size reduces the ability of each member to monitor and supervise company operations, and thus reducing company performance. This study used Jensen's (1993) optimal board size (7 to 8 directors) as the basis for determining whether the EACs listed companies has an equivalent optimal board size. This study findings were inconclusive; there were significant relationships between board size and ROA, board size and LnPER in 2013/2014 but no significant relationship between board size and ROE and LnTBQ in 2008/2009 and 2013/2014.

2.6   Regional Economic Integration and the EAC

A regional economic integration is a joint trade policy by member countries that aims at reducing or eliminating trade barriers (technical and non-technical) among the member states (Salvatore 2004). It involves a joining together of the economic, social and political infrastructures between two or more countries within a given geographic region to enhance their economic growth and development (Kehoe 2006). According to Schiff and Winters (2003), there has been a growing trend towards regionalism, which makes regional economic integration an important element in the new global economic order. The main reasons behind the recent growth in regionalism include, the pressure for countries to compete in the global market, where the world is seen as one integrated market, the need to gain access to and consolidate regional markets, and respective governments' desires to harness their economic and political policies (Schiff & Winters 2003). The idea of regional economic integration was introduced after World War II (Schiff & Winters 2003) since which there has been a growing trend among nations to integrate their economies. One of the most prominent examples of such economically integrated nations is the European Union that was formed in 1951 by six member countries, namely the Netherlands, the UK, Italy, Luxembourg, France and Germany. It later became the European Economic Community (EEC) in 1957 and the European Free Trade Association (EFTA) in 1960 (Radebaugh, Sullivan & Daniels 2015).

The success of the EEC in Europe has encouraged the spread of economic integration to other continents and regions like Latin America, Asia and Africa (Schiff & Winters 2003).

On the African continent, Mwasha (2011) reports that economic integration in Africa started in 1910 with the creation of the Southern African Customs Union (SACU) whose membership included South Africa, Botswana, Lesotho, Swaziland and, Namibia. Currently, there are a number of economic integrations existing in Africa, including the East African Community (EAC), the Common Market for Eastern and Southern Africa (COMESA), the Economic Community of West African States (ECOWAS), the Southern African Development Community (SADC), the Economic Community of Central African States (ECCAS) and the Arab Maghreb Union (AMU). Although the number of economic groupings has increased in the recent past, most of them have not been very effective in delivering the expected economic growth and development (Mwasha 2011). Some of the reasons behind their poor performance include the member countries' economic instabilities, external debt problems, currency fluctuations, and narrow tax bases (Matthews 2003).

2.6.1   Stages in economic integration

There are five main stages in the process of an economic integration, namely the free trade area, the customs union, the common market, the economic union and the political union (Kehoe 2006; Mirus & Rylska 2001).Figure 2.1, below, illustrates the stages. The EAC is currently at the level of the common market, which it attained in 2010 (EAC 2016b).

a)   Free Trade Area

The first stage is that of the free trade area which has two major characteristics - liberalisation of trade among the member states, and elimination of trade barriers amongst them. This may include elimination of tariffs, quotas, and other non-tariff barriers as well as members' commitment to eradicate trade barriers at some future, specified date (Kehoe 2006). The EAC community operated as a free trade area until 2005 (Kasaija 2004; Mafusire & Brixiova 2013).

b)   Customs Union

A customs union has one defining characteristic above that of the free trade area, namely the imposition of a common tariff on non-member countries. There is trade liberalisation among the member states and a shifting of tax burdens to non-members. Imposition of a common tariff indicates a convergence in trade policy across member states (Kehoe 2006). The EAC

attained the Customs Union status in 2005 and since then, the EAC member countries enjoy zero taxes on goods and services amongst themselves (EAC 2016b, 2016c).

c)   The Common Market

A common market incorporates all characteristics of a free trade area and customs union, in addition to free movement of factors of production such as labour, capital, entrepreneurship and technology (Kehoe 2006; Mirus & Rylska 2001). This requires member countries to have a common immigration policy and common standards of economic subsidies, health and safety, anti-trust provisions, and professional licensing protocols (Kehoe 2006). Common Market status is the second integration milestone achieved by the EAC. It was accomplished in January 2010, five years after the launching of the EAC- Customs Union (2005). It was introduced with an emphasis on accelerating economic growth and development within the EAC (EAC 2016c). The EAC- Common Market thus introduced free movement of capital, persons, goods, services and labour, as well as the right of residence to all citizens of all EAC member states (EAC 2016c). The EAC- Common Market operates under a set of rules and principles for the benefit of all EAC nationals. These act as the standard doctrines for the operationalisation of the EAC. They include equal treatment of all member states' citizens, non-discrimination of EAC nationals according to nationality, transparency about member states' undertakings and information sharing (EAC 2016c).

Figure 2.1 Levels of Economic Integration
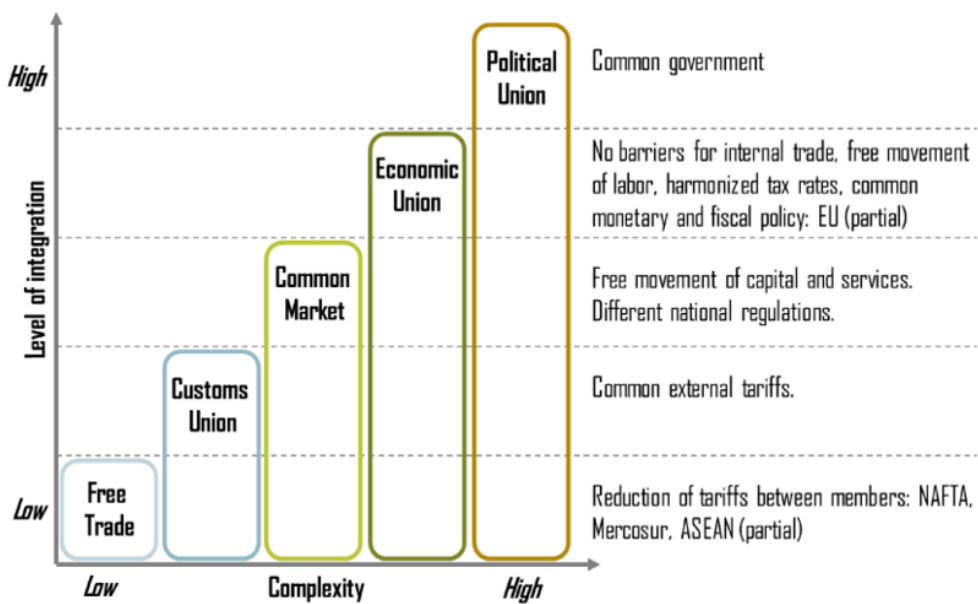
Source: Rodrigue (2016).

d) Monetary /Economic Union

An economic union combines the characteristics of a common market with the harmonisation of monetary and fiscal policies, creating a common currency, and establishing a supernational governing authority (Kehoe 2006) such as the current East African legislative assembly or the European Parliament established by the European Union countries. It is envisaged that the EAC-EU will be attained by 2023 (Masinga & Machira 2014). The EAC-EU is one of the most important stages in the EAC's regional integration (2016b). The protocol establishing the EAC-EU was signed on 30th November 2013 and, according to its planned implementation road map, the EAC-EU will be operationalised in 2023. Within ten years after the signing of the EAC-EU protocol, member countries are expected to finalise the modalities of establishing a single currency and harmonising their fiscal and monetary policies. Member states are also in the process of establishing single settlement systems, policies and standards on statistical information, and an East African central bank.

e) Political Federation/Union

A political union is the final stage in the process of regional economic integration (Kehoe 2006). It combines all the five characteristic of the economic union with the political unification of member states. Political federation is the ultimate goal of the EAC regional integration, and the final step after economic union. It is provided for under the EAC treaty and is based on the three main pillars of the EAC's economic integration, namely (1) collective foreign and security policies, (2) good governance, and (3) successful implementation of all phases of the EAC integration (EAC 2016c). The attainment of a political federation is not an event, but a continuous process (Kasaija 2004). The march to political unification was started with an extraordinary meeting held in Nairobi in August 2004, at which the EAC presidents agreed to examine ways and means of fast-tracking the integration process (EAC 2016c). A committee was established to fast-track political federation by carrying out consultations with all EAC stakeholders. Since then, consultations about the future of the EAC integration have been ongoing.

2.6.2   The East African Community (EAC)

The EAC is a regional, intergovernmental bloc of six partner states, Kenya, Uganda, Tanzania, Rwanda, Burundi and South Sudan, which joined the EAC on the 15 April 2016. These countries have had several economic and political partnerships under different intergovernmental arrangements, including the East African High Commission (1948-1961),

the East African Common Services Organisation (1961-1967), the East African Community (1967-1977) and the East African Co-operation (1993-2000), all of which laid the cornerstones for the current EAC (Kasaija 2004). The EAC was formed in 1917 between Uganda and Kenya and was later joined by Tanzania in 1927, before being dissolved in 1977 (EAC 2016b). After its dissolution, the member countries came to a mediation agreement regarding the distribution of the community's assets and liabilities, which was concluded with the signing of the 1984 treaty amongst the then three EAC member states (Uganda ,Kenta and Tanzania) (Kasaija 2004). In the early 1990s, the East Africa region experienced changes in leadership which resulted in significant social, economic and political transformations (EAC 2016b; Kasaija 2004). Consequently, the EAC's heads of states agreed to renew the EAC partnership, which started the process of reinstatement of the current EAC (EAC 2016b). The EAC was effectively revived via the 1993 agreement between Kenya, Uganda and Tanzania, which created the Permanent Tripartite Commission for East African Co-operation (EAC 2016b). In April 1997, Kenya, Uganda and Tanzania entered an agreement to establish the EAC, a process that took three years before the November 1999 treaty which established the current EAC (EAC 2016b).

The EAC has an aggregate population of about 145.5 million, seventy-eight percent of which lives on subsistence agriculture (EAC 2016b). It has a total land mass of 1.82 million square kilometres and an aggregate Gross Domestic Product (GDP) of US$ 147.5 billion, according to the EAC Statistics for 2015 (EAC 2016b). The revival of the EAC integration was rekindled by the treaty that established the EAC in November 1999 and later became effective in July 2000 after its ratification by Uganda, Tanzania and Kenya (Carcel, Gil-Alana & Madigu 2015; EAC 2016b).

Kenya is one of the main founders of the EAC; it is the second most populated and highly developed country within the EAC. It has a population of 45.6 million, a GDP of about US$ 60.9 billion, a geographical land mass of 582 646 sq. km and population density (per sq. km) of 74. The country lies along the equator, bordering the Indian Ocean in the east, Somalia in the east and north-east, Ethiopia and south Sudan in the north, Uganda in the west and Tanzania in the south (EAC 2016d). Uganda is the second founder member of EAC and joined the integration from its second inception in July 2000. It has a population of 38.8 million; GDP of US$ 26.3 billion, with a geographical area of 236 000 sq. km. Uganda is a

landlocked country with a population density (per sq. km) of 173. It lies along the equator and borders with south Sudan, Kenya, Tanzania, Rwanda and the Democratic Republic of Congo (EAC 2016a). The third member of the EAC is Tanzania, one of the three EAC founder members of July 2000. It has a population of 47.4 million, a GDP of US$ 49.2 billion, a geographical area of 945090 sq. km and a population density (per sq. km) of 53.5. It borders with the Indian Ocean to the east and shares boundaries, anti-clockwise from the north, with Kenya, Uganda, Rwanda, Burundi, the Democratic Republic of Congo, Zambia, Malawi and Mozambique. The country includes Zanzibar, consisting of the main island, Unguja, plus Pemba and other smaller islands (EAC 2016f). Finally, Rwanda, Burundi and South Sudan are the newest members of the EAC. Rwanda joined the EAC in July 2007, at the same time as Burundi while South Sudan joined in 2016. Rwanda has a population of 12.1 million, a GDP of US$ 7.89 billion and a population density (per sq. km) of 434. It is a landlocked country, bordering Uganda, Burundi, Tanzania, and the Democratic Republic of Congo (EAC 2016e). Burundi has a population of 10.5 million, a GDP of US$ 3.1 billion and a geographic area of 7834 sq. km. It is a landlocked country, bordering with Rwanda in the north, Tanzania in the south and east and the Democratic Republic of the Congo in the west. The country is part of the Albertine Rift valley, which is an extension of the East African Rift valley (EAC 2016d). This study thus aimed at examining the influence of corporate governance on the financial performance of listed companies in the EAC. As discussed in section 1.2, the EAC faced a number of corporate failures between 1997 and 2005 due to poor or lack of sound corporate governance structures (Brownbridge 2002; Fulgence 2014; Wanyama, DW & Olweny 2013).

2.7   The EAC Stock Markets

The EAC has four securities exchange markets (SEM's) domiciled within four of the EAC member states, and they form the EAC- SEMs. These are the Nairobi Securities Exchange (NSE) based in Kenya, the Dar es Salaam Stock Exchange (DSE) from Tanzania, the Uganda Securities Exchange (USE) in Uganda, and the Rwanda Stock Exchange (RSE) in Rwanda. Burundi does not have any operational stock market. The stock markets play an important role in regional economic growth and development by assisting companies to access finance for growth and expansion (Nyasha & Odhiambo 2013). Stock markets also help listed companies to share information about their past performance and future economic prospects (for marketing purposes) with prospective investors. This in turn helps companies to increase their share prices, especially in countries with semi-strong efficient markets where share

prices are determined by the availability of public information. Yartey and Adjasi (2007) report that that stock markets exist to enable low-cost information flow between international and domestic market players, thus increasing the rate of investments in an economy. According to Baier, Dwyer and Tamura (2004), a country without a stock market is more likely to lag behind in economic growth and development. Stock markets also help in improving financial reporting standards within a country, as well as management accounting and decision making, which promote transparency between companies and their investors (Ilmolelian 2005).

The NSE was the first and only stock exchange market in East Africa until the 1990's (NSE 2015). The NSE was established in 1920 when Kenya was still a colony under the British protectorate. It started as an informal market, without proper rules and regulations, and exchange dealings were predicated on mutual understandings between participants (Nyasha & Odhiambo 2013). The market operated without any stock brokers, and trading took place in informal meetings, over a cup of tea, at a golf course, at a family party or at informal gatherings of professional acquaintances like lawyers, accountants, and estate agents (Nyasha & Odhiambo 2013).

In 1950 the NSE, through the Ministry of Finance, requested permission from the London stock exchange to officially operate as the first East African stock market, which was granted in 1951, and consequently it was launched as a British overseas stock exchange in 1953 (NSE 2015). This was followed by the NSE's registration under the Societies Act (1954) as a voluntary association of stockbrokers responsible for developing the securities market and regulating stock market activities in East Africa (NSE 2015). At that point, trading on the stock exchange was restricted to resident European community members; no local person was allowed to deal in corporate equities until 1963 when Kenya attained its independence (Nyasha & Odhiambo 2013). After independence, most of the EAC's business community were ignorant of stock market dealings while others looked at the stock market as one of the colonial legacies that was not worth pursuing. This resulted in a considerable decline of trade on the NSE, which created uncertainties about the future of stock markets within the EAC (Kasaija 2004). By 1968, the NSE was still operating as a regional stock market in the EAC, with 66 listed companies (45% Kenyan, 23% Tanzanian and 11% Ugandan) (USE 2015). By 1963, the EAC countries had attained their independence, which made it difficult for the NSE to survive in its current state because of the differences between the leadership and economic

ideologies of the member states (Kasaija 2004). These differences culminated in various economic and political hostilities, to the detriment of the NSE. Moreover, by the mid-1970's, the EAC- Customs Union was about to crumble, due to the same differences in ideology, and many companies, especially those that were domiciled in Uganda and Tanzania, were on the verge of being delisted (USE 2015). Additionally, the Kenyan government introduced a thirty-five percent capital gains tax , in 1975, which forced Uganda to nationalise all its NSE listed companies and quit the NSE in 1976 (Nyasha & Odhiambo 2013).

a) The Nairobi Security exchange (NSE)

The NSE is comprised of three major market segments, the Main Investment Market Segment (MIMS), the alternative Investment Market Segment (AIMS) and the Fixed Income Market Segment (FIMS). The MIMS is the major operating market for most quoted companies and within it, companies are further split into four subdivisions in accordance with their primary activities. The subdivisions are Commercial and Services, Investment and Finance, Industrial and Allied, and Agriculture (NSE 2014; USE 2015). On the other hand, the AIMS offers an alternative platform for SMEs or small companies that may not qualify to be listed under the MIMS platform, due to its strict listing requirements. The FIMS provides an independent market platform for fixed income derivatives, like corporate bonds, treasury bonds, preference shares, debentures, and other short-term financial instruments, such as commercial papers and treasury bills (NSE, 2015). In 2009, the NSE pioneered an automated trading system in the EAC, which centralised trading on the NSE and increased market efficiency and transparency in trading. The automated system also enriched market surveillance, which helps to convey real-time information about price movements and implications, facilitate quick and informed decision-making and reduce market speculations (USE, 2015).

Although the NSE is the largest and oldest stock markets in the EAC, its contribution to economic development has remained negligible. As a result, the EAC governments continue to support its reforms, aiming to improve its efficiency by methods such as changing its operations from a self-regulated company to a statutory regulatory one or (demutualisation), easing the listing requirements by reducing listing costs, and repealing of any laws that inhibit trading on the NSE (Nyasha & Odhiambo 2013).

b) The Dar es Salaam Stock Exchange (DSE)

The DSE was established in September, 1996 under the Capital Markets and Security Authority Act 1994 as a not-for-profit limited company, triggered by the government's desire to transform the Tanzanian economy from a public government-driven economy to a private sector-focused one (DSE 2015; Norman 2010). The Capital Markets and Securities Authority of Tanzania regulate the DSE, which is an agency of government responsible for promoting and regulating securities trading in Tanzania.

The DSE became operational in 1998 after the listing of two of its pioneer companies, TOL Gas limited and Tanzania Breweries limited (DSE 2015). The DSE is the second largest security exchange within the EAC, with twenty-one (21) listed companies, seven (7) of which are cross-listed on the NSE, and it has a market capitalization of about US$9.7 million (DSE 2014, 2015). The DSE offers both primary and secondary market services for investors to buy and sell securities (DSE 2015; NSE 2015; USE 2015). It is one of the best-structured stock markets in the EAC, with a wide range of investors, agents and brokers (DSE 2015). The DSE listed companies enjoy a number of benefits, such as access to alternative sources of capital, both on primary and secondary markets, improved performance due to increased public scrutiny of the listed company's operations, free advertisement through regular stock market periodicals and publications (annual reports), improved public/investor perception by virtue of being listed, access to cross-listing opportunities within the four EAC stock markets and placement within the EAC Security Markets (Norman 2010). Furthermore, any company that is listed on DSE receives some fiscal incentives from the Tanzanian government for participating in capital market undertakings. These incentives include a five percent corporation tax reduction for the first three years of being listed on DSE, the allowance of issuing costs as business tax-deductible expenses, and tax exemption for all investment income for all companies domiciled in the EAC (Norman 2010). The government also gives incentives to investors to trade DSE listed company's shares and other securities, including a six percent stamp duty exemption, five percent withholding tax reduction on dividend income, and withholding tax exemption on all interest income from listed company's bonds with more than three years' maturity (Norman 2011).

c) The Uganda Securities Exchange (USE)

The USE was established by the Government of Uganda in 1997 as a non-profit-making company and was given the mandate of transforming Uganda's economy from a public sector-based economy to a private sector-driven and self-sustained one. A board comprised of

representatives from investors, licensed brokers, investment advisors and security issuers governs the exchange market (USE 2015). The USE is the first securities exchange market in Uganda and the 17th oldest in Africa (Maghanga & Quisenberry 2015). By the end of 2014, the USE had a market capitalisation of about US$ 16.8 million (USE 2015). Trading on the USE started in the year 2000 with the listing of two companies (Uganda Clays Ltd and British American Tobacco). As the first IPO in Uganda, the listing attracted an overwhelming response, with oversubscriptions of fifteen and five percent for Uganda Clays Ltd and British American Tobacco respectively. Noting the potential of the USE, Kenyan companies were attracted to the USE, and in March 2001, the first ever-cross border listing of companies on EAC Security Markets took place, when East African Breweries Ltd (ranked among the 10 top listed companies on the NSE) was listed on the USE. This was followed by Kenya Airways in 2002 and in 2003, the USE launched an all-share index, followed by complete trading automation in 2010 (USE 2015).

Today, the USE works as the central platform for all Uganda's security trading. It brings together investment communities comprised of investors, licensed brokers and dealers. It is the only exchange market in Uganda to offer both primary and secondary equity markets. As a primary market, it provides a platform for companies to raise capital via IPO's, issuance of debt and other financial instruments for trading by both private investors and government, while the secondary market (aftermarket) allows trading in equities previously issued via the stock exchange. Other roles played by the USE include creating business opportunities for private and institutional investments, helping financial intermediaries streamline trading in financial derivatives and identifying potential investors, using its trading links with the banks and other dealers and brokers. The USE is also responsible for streaming the processes aimed at attracting investments to the country via IPO's, rights issue or private equity transactions and, most importantly, it is responsible for regulating all stock exchange business in Uganda, setting and implementing the stock market trading rules and ensuring members comply with good corporate governance practices (USE 2015).

The USE operates through three major market segments, namely the Main Investment Market Segment (MIMS), the Fixed Income Securities Market Segment (FISMS) and the Growth Enterprises Market Segment (GEMS). The MIMS is the leading market for blue chip companies looking to raise finances. To become a member of the MIMS on the USE, a company must have net assets equivalent to or greater than US$ 600,000 and at least US$

300,000 worth of issued share capital. There are currently sixteen listed companies trading on the MIMS platform. The second market segment is the FISMS, which was introduced to handle fixed income securities such as corporate bonds, treasury bills, commercial papers, preference shares and other debenture stocks. It is a distinctly independent market for companies wishing to raise capital through issuing fixed income securities. As the end of 2015, six corporate bonds and thirty-nine government treasury bonds were listed on the USE under the FISMS platform (USE 2015). Finally, the GEMS market platform was established in 2012 to provide companies with a platform for raising capital for Small and Medium Sized Enterprises (SME's). The USE created this segment in recognition of the roles played by SME's in the country's economic growth and development and hence the need to provide them with funding. The eligibility criteria for participating SMEs are not as rigorous as those under MIMS; they depend on the nature of a company and its industry (USE 2015).

d) The Rwanda Stock Exchange (RSE)

The RSE limited is Rwanda's only stock exchange was incorporated in October 2005 with four major responsibilities. These are: (1) helping in the mobilisation of savings for investment so as to support the country's economic growth and development, (2) promoting corporate governance and best practices that protect all company stakeholders' interests, (3) supporting the government's infrastructure development projects by raising funds through the issue of government bonds and commercial papers, and (4) measuring the listed company's share price movement as an indicator of national economic trends (RSE 2015a). Unlike all the other EAC stock exchange markets that began as unlimited companies, the RSE was demutualised (when a mutual trust company becomes a public listed company) from its inception, which made it the first EAC stock market to commence its operations as a limited liability company (RSE 2015a). It is regulated by the Rwandan Ministry of Finance and Economic Planning through Rwanda's Capital Market Authority, formerly known as the Capital Markets Advisory Council (RSE 2015a). After its inception in 2005, the RSE did not become active until January 2008 when the exchange started operating as an over-the-counter exchange market It began trading on 31 January 2011 with only one company and by the end of 2015, five companies were listed on the RSE (RSE 2015b).

2.8   Conclusion

This chapter reviewed the literature on corporate governance practices in both developed and developing countries. According to Friedman (2007), the primary objective of a company is to maximize shareholders' wealth by focusing on short and long term benefits. The literature

also recognized that a corporate governance structure may help a company to achieve this primary objective (Fuenzalida et al. 2013). Prior research also reported that good governance could help instil investor confidence in companies, resulting in enhanced capital market performance (Brahimi et al. 2013). However, studies of corporate governance and firm performance relationships reported mixed results. The literature identified that the links between corporate governance practices and company performance have not been studied in many developing countries, such as those in the EAC, where stock markets are not as well developed as in developed countries. This chapter also reviewed the theories that are relevant to corporate governance practices, including agency theory, stewardship theory, stakeholders' theory, resource dependency theory, legitimacy theory, and institutional theory. The chapter also discussed the beginning of corporate governance, including models of corporate governance such as the Anglo-Saxon, the Japanese, the German and Latin models, and various international corporate governance guidelines provided by the Organization for Economic Cooperation and Development (OECD), the Commonwealth Association for Corporate governance (CACG) and other developing countries, on which the EAC's corporate governance codes and best practices are based. This literature review was used to design the conceptual framework to develop the relevant hypotheses in this study. Chapter 3 will look at the conceptual framework upon which the study's hypotheses are based.

Chapter 3   The conceptual framework and hypothesis development

3.1   Introduction

This chapter presents the conceptual framework adopted to determine the relationship between corporate governance and company financial performance in the EAC. The chapter is structured as follows: Section 3.2 presents the study's conceptual framework, Section 3.3 is about the study's independent variables and hypotheses, Section 3.4 discusses the study's control variables, and Section 3.5 provides a discussion about the dependent variables while Section 3.6 delivers the chapter's concluding remarks.

3.2   Conceptual framework

The conceptual framework developed in this chapter provides a framework to examine the influence of corporate governance on company financial performance. The conceptual framework was also used to build the study's hypotheses about the relationship between corporate governance and company financial performance. This study is based on the agency theory used in finance and accounting studies to analyse the relationship between corporate governance and company financial performance (Kaplan 2015; McGrath & Whitty 2015; Nguyen, Pascal et al. 2015; Youssef & Bayoumi 2015; Zeitoun & Pamini 2015). Agency theory explains how company performance may be influenced by conflicts between shareholders and managers (Fama 1980; Jensen, Michael C & Meckling 1976). Hence, the agency theory was adopted to provide an explanation about the relationship between the independent and the dependent variables presented in figure 3.1.

As indicated in figure 3.1 below, this study adopted a conceptual framework incorporating four corporate governance indicators (gender diversity of the board, board independence, enterprise risk management, and board size) as independent variables, two control variables (natural log of total assets and natural log of market capitalisation) and four dependent variables (ROA, ROE, LnTBQ and LnPER) as proxies for company financial performance.

Figure 3.1. Conceptual Framework
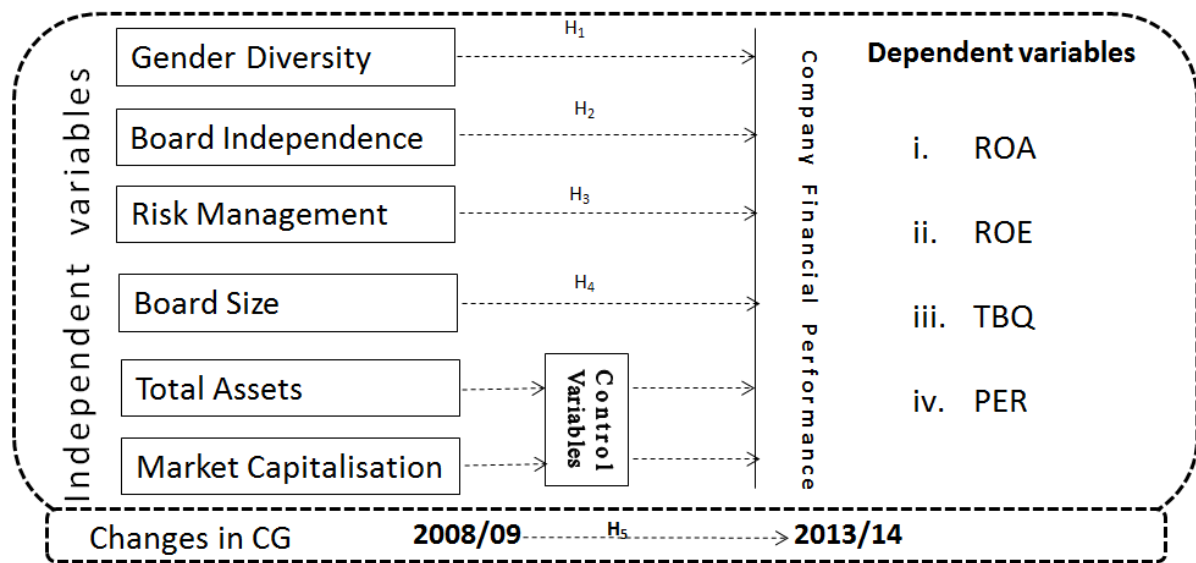
3.3   Independent variables and hypothesis development

The researcher used corporate governance indicators to develop the hypotheses used in this study. These hypotheses rest on the broad assumption that the adoption of corporate governance and codes of best practices is likely to enhance company financial performance (Shleifer & Vishny 1997). All the corporate governance indicators used in this study have been previously used in accounting, finance and corporate governance researches to examine the influence of corporate governance on company financial performance (Adams, R. B. & Ferreira 2009; Adams, Renée B & Funk 2012; Adams, Renee B, Gray & Nowland 2011; Ahern & Dittmar 2012; Barontini & Caprio 2006; Broadbridge et al. 2006; Daily, Johnson & Dalton 1999; Eagly, Johannesen-Schmidt & van Engen 2003; Eckel & Grossman 2008; Fawcett & Pringle 2000; Giovinco 2014; Moldasheva 2015; Tshipa 2015; Youssef & Bayoumi 2015). However, the above studies have generated mixed outcomes, namely negative, positive or no relationship between various corporate governance elements, and company financial performance indicators. The next sub-sections discuss the study's hypotheses (H_1 to H_4). These hypotheses were adopted in line with the study objectives discussed in section 1.3, above.

3.3.1   Gender Diversity of the board

A number of investigations in the past have suggested a positive relationship between gender diversity of the board and company financial performance. For instance, Ford and Richardson (1994) posit that female directors are naturally more ethically upright than their male counterparts, especially in managing company finances. Broadbridge et al. (2006), and

Konrad, Kramer and Erkut (2008) argue that female directors are more organised, more focused on corporate board business and more likely to objectively query management's actions or the rationale behind management's decisions, than their male counterparts. This increases company monitoring and controls and hence can lead to the enhancement of company financial performance. According to Melero (2011) and Baglioni and Colombo (2013), gender diversity enhances company monitoring which can result in higher company performance. Khan, WA and Vieito (2013) assert that the presence of female directors leads to better company performance because females have different attitudes to risk-taking. It is believed that by nature, women are more risk-averse than men, hence companies with female directors are less likely to take high risks in investment decisions such as excessive debt capital or diversification, which may increase agency costs and reduce company value (Niessen & Ruenzi 2006; Vandegrift & Brown 2005).

Hambrick (2007) also suggests that gender differences in the boardroom influence company financial performance. This can be due to differences in gender cognitive characteristics, as proposed by the upper echelons theory (Carpenter 2002; Hambrick 2007). According to the upper echelons theory, female directors are more likely to have different cognitive frames than their male counterparts, which influences the way they perform their board functions (Hambrick 2007). For instance, female directors, tend to have better talents in marketing and sales (Groysberg & Bell 2013), which may influence their contribution to the company's profitability. Furthermore, female directors may have different knowledge and experience by virtue of their path to directorships - they are less likely to have been CEOs and are more likely to have come from non-business backgrounds (Hillman, Amy J, Cannella & Harris 2002; Singh, Terjesen & Vinnicombe 2008).

According to Kopczuk, Saez and Song (2010), recent increases in gender equality at work places, especially in industrialised countries, have generally increased the female purchasing power. Consequently, women's influence and control in household purchasing decisions have drastically increased (Phipps & Burton 1998). Such responsibility helps women to enhance their knowledge of consumer markets, which may contribute to better board decision-making (Carter, David A, Simkins & Simpson 2003). Groysberg and Bell (2013) argued that female directors have more interest in philanthropy and community service, which makes them more likely to consider the interests of all stakeholders, thus increasing company performance.

According to Adams, Renée B and Funk (2012), female directors are more likely to value interdependence, benevolence, and tolerance, which may help to elicit information and stimulate collaboration among all board members. Bart and McQueen (2013) study of directors' moral reasoning revealed that with competing interests at stake, female directors tend to make fairer decisions using a cooperative decision-making approach, while their male counterparts prefer to make decisions using more traditional ways of doing business, that are based on rules and regulations.

Similarly, Peterson and Philpot (2007) suggested that female directors adopt a diverse vantage point that provides a company with access to vital performance-enhancing information. This is because female directors contribute to board diversity (due to their unique knowledge and experiences). Hence, female directors may help improve companies' ability to generate profit from their investments (Miller, T. & Triana 2009). Moreover, a more gender-diverse board means that the company is likely to have a broader, and perhaps more complete, understanding of the marketplace and of the companies' multiple stakeholders (Carter, David A, Simkins & Simpson 2003). In addition, because female directors help elicit multiple viewpoints in decision-making (due to their differing values), they may help improve a company's ability to make decisions that enhance financial performance (Loyd et al. 2013).

On the contrary, Carter, David A, Simkins and Simpson (2003); Farrell, KA and Hersch (2005), and Rose (2007) found no relationship between the presence of female directors and company financial performance, while Ahern and Dittmar (2012) study in Norway discovered negative relationships between gender diversity of the board and company financial performance. This was attributed to the fact that as companies tried to meet the legal requirements for female board quotas, many companies recruited younger, less experienced and incompetent female directors, resulting in poor board decisions and hence poor company performance.

Within the EAC, gender-diversity of boards is still relatively low; for instance according to the data from companies surveyed in this study, the mean gender-diversity on boards in 2008/2009 was 11%. However, in 2013/2014, that figure rose to 16% (Table 5.3), which is above the 12.4% global percentage of women on boards for 2014 (Lee et al. 2015) . Even so,

most company boards in the EAC are still dominated by male directors, as compared to countries with the highest percentage of female directors such as Norway (40.1%), Sweden (33.7%) and France (33.5%) (Lee et al. 2015). According to Wachudi and Mboya (2012), the relative rarity of female directors in the EAC can be attributed to the prevalent patriarchal culture in the EAC countries.

The researcher used the ratio of female directors to total directors as a measure of gender diversity of the board and hence adopted the following hypothesis to test the influence of gender diversity on a company's financial performance.

There is a significant relationship between gender diversity of the board and company financial performance (H1).

3.3.2 Board Independence

The term 'independent director' is commonly used interchangeably with 'non-executive director' and 'outside director'. However, not all non-executive directors are independent. A director is considered as independent to an organisation if he/she is not an executive, employee, advisor, consultant, or contractor and has no relationship with the company business other than his or her role as a director (CMA, K 2002). Most investors, especially institutional investors, prefer to invest in companies with independent boards of directors (Schnatterly & Johnson 2014). Many scholars have attempted to explain the effects of board independence on company performance, using agency and stewardship theories (Blair 1995; Dalton, D. R. et al. 1998; Zahra & Pearce 1989), which suggests that board independence increases the efficiency of board monitoring, in the quest for better company performance. Agency theory in particular (Jensen and Meckling, 1976) suggests that rational investors prefer independent boards because they provide good monitoring of the top management, which reduces agency costs and improves shareholders' wealth maximisation. Moreover, Schellenger, Wood and Tashakori (1989) and Daily and Dalton (1992) assert that having a majority of independent directors on a board increases a company's financial performance.

A review of prior literature about board independence and company financial performance indicated no consensus, which suggests that board independence can be positively or negatively correlated with company performance (Dalton, D. R. et al. 1998). For instance, Duru, Iyengar and Zampelli (2016) posit that board independence has a positive impact on firm performance. Similarly, Ameer, Ramli and Zakaria (2010) studied the association

between board composition and company performance of 277 nonfinancial listed Malaysian Companies. Their study discovered that over the period of 2002 to 2007, high representation of outside and foreign directors on the board had a significant positive correlation with the company's performance. Additionally, research by Abdullah, SN (2004) on the relationship between the independent directors of 412 companies in Malaysia also showed positive and significant correlation with company performance, as measured by returns on assets, profit margin and earnings per share. On the other hand, a study by Fauzi and Locke (2012) on listed companies in New Zealand from the period 2007-2011 showed a significant negative association between the number of non-executive directors and company performance.

A study conducted on Hong Kong firms by Leung, Richardson and Jaggi (2014) discovered no association between board independence and firm performance in family-owned companies. However, they found a positive relationship between board independence and firm performance in non-family owned firms. Similarly, according to the study by Garg (2007) on Indian listed companies, board independence does not guarantee any higher monitoring and control of the company nor higher company profits. Similarly, using the Tobin's q as a measure of company performance, Hermalin and Weisbach (1991) found no relation between company performance and the proportion of outside directors, while Fosberg (1989) found no relationship between the presence of independent directors and company performance, as measured by return on assets.

Most developed stock markets, such as those in the USA and the UK, consider board independence as an important contributor to effective company monitoring and performance (Siddiqui 2015). In such markets, law mandates the need for company monitoring. For example, in USA, the Sarbanes-Oxley Act (SOX) 2002 requires companies to have a majority of independent directors serving on their boards (Li, X 2014). Similarly, the EAC's code of governance emphasises board independence and requires non-executive directors to represent at least one-third of total board membership (CMA, K 2002; CMA Kenya 2015; CMA, U 2003). The choice of the board independence variable in this study was therefore based on the assumption that board independence enhances a board's monitoring capacity, hence it was deemed useful to analyse the extent to which it may or may not influence the EAC-listed companies' financial performance. Board independence is defined in the current

study as the ratio of non-executive directors to total directors (Anderson & Reeb 2003; Barontini & Caprio 2006). The researcher thus hypothesised that:

There is a significant relationship between board independence and company financial performance (H2).

3.3.3 Enterprise risk Management (ERM)

Corporate scandals and reduced investor and creditor confidence in financial reporting have made corporate governance a priority for many companies and their stakeholders (Nyagah 2014). At the same time, the number of companies trying to manage their risks has increased. Therefore, there is a need for companies to effectively integrate ERM with corporate governance, in order to mitigate future risks (Sobel & Reding 2004). According to Ansong (2013), ERM is a business approach that supports the attainment of a company's main strategic objectives by mitigating its aggregate risks. ERM was first brought to light by Berle and Means (1932) in their study of shareholder influence and company performance, which emphasised the importance of risk management in the prevention of corporate failure (Berle & Means 1932). This view was shared by Jensen, Michael C and Meckling (1976)'s theory of the firm, which stressed that agency costs are caused by management's self-seeking behaviour (Fama & Jensen 1983). According to Shleifer and Vishny (1997), corporate governance provides a good framework for risk management and can help in the enhancement of shareholder return on investment. Indeed, ERM has been found to be a source of strategic strengthening for retail companies in the UK (Woods 2007). According to Lundqvist (2015), companies worldwide have adopted ERM as part of their corporate governance and good practice by the creation of either a board risk committee or a chief risk officer position, or both, to manage the company's combined risks. Hence, ERM is considered as one way of enhancing company performance because it helps to avoid reputational costs, losses and, at worst, company bankruptcy (Gordon, Loeb & Tseng 2009; Pagach & Warr 2011). The adoption of ERM also helps the company management to improve their decision-making practices (Grace et al. 2015; Nocco & Stulz 2006) and resource allocation (Baxter et al. 2013; Hoyt & Liebenberg 2011). Gordon, Loeb and Tseng (2009) suggest that the relation between ERM and company performance depends on company-specific factors, such as environmental uncertainty, industry, company size, and board activity.

However, according to Nocco and Stulz (2006), it is not clear whether ERM leads to an increase in company performance, because adoption of ERM reduces the company's risk-

taking appetite and ultimately its profitability. Claessens, Stijn and Forbes (2013) argue that there is always a trade-off between portfolio risks and benefits (the higher the risk the higher the returns), hence by adopting ERM a company may lose out on the benefits associated with taking a risk (Ellul & Yerramilli 2013). For instance, by adopting ERM to reduce its portfolio risk, a company may be prevented from diversifying the shareholders' investment, which could have increased company benefits (Claessens, Stijn & Forbes 2013).

Beasley, M, Pagach and Warr (2008) argued that the appointment of a chief risk officer leads to a higher share price for non-financial companies, but not for financial services companies. Similarly, Hoyt and Liebenberg (2011) study of insurance companies in the USA discovered that the appointment of a chief risk officer in insurance companies led to enhanced company value. Likewise, Grace et al. (2015) revealed that the use of economic capital models and risk managers improves operating performance, but the presence of a chief risk officer has no incremental effect on company performance. Nevertheless, their study discovered that company value increases when a company adopts ERM initiatives such as the appointment of a dedicated risk manager, nomination of a cross-functional risk committee, and making the risk manager responsible to the board or CEO (Grace et al. 2015).

Woods (2007) criticised the practicality of ERM in managing company risks arguing that most companies do not adopt ERM for its benefits, but simply because other companies are doing so (Woods 2007). Indeed, there is a lot of pressure from company stakeholders to put in place a risk-focused corporate governance system, which renders ERM a mere compliance measure, rather than a risk management tool aimed at enhancing company financial performance (Arena, Arnaboldi & Azzone 2010). In this study, company commitment to risk management was validated by the presence of a chief risk officer (Aebi et al,2012; Liebenberg & Hoyt 2003), and the presence of a risk and audit committee of the board, responsible for company risk management (Knechel 2002). To test the influence of ERM on company financial performance, this study adopted the following hypothesis:

There is a significant relationship between company commitment to enterprise risk management and its financial performance. (H3).

3.3.4   Board Size

The agency theory considers the board of directors as an important element of a companies' corporate governance system, because of its responsibility in protecting shareholders'

interests and mitigating the principal- agent conflicts (Baysinger & Butler 1985; Fama 1980; Jensen, Michael C & Meckling 1976; McCann & Ackrill 2015; McGrath & Whitty 2015). According to Zahra and Pearce (1989), boards of directors play two important roles: (1) controlling the company's operations by supervising the executive managers; and (2) promoting company image by encouraging a good relationship with the company's stakeholders.

According to Conyon and Peck (1998), there is a negative relationship between a larger board and company performance, because large boards are often associated with the 'free rider' problem where most of the board members play a passive role in monitoring and supervising. Consequently, the free rider problem affects the company's operations by slowing down the decision-making process and hampering the companies' financial performance (Conyon & Peck 1998). In addition, Jensen, M. C. (1993) argued that smaller boards are more cohesive and easier to control than large ones. Eisenberg, Theodore (2005) discovered a negative relationship between board size and performance, because a larger board size leads to mismanagement, lack of coordination and lack of cohesiveness, which makes it difficult for the board to monitor company operations effectively. Similarly, Nguyen, Pascal et al. (2015), argue that large boards are associated with agency costs, which leads to a decline in company value.

On the other hand, Mwanzia Mulili (2014) argued that a larger board brings to the company wider knowledge, skills, experience and economic networks of the individual directors, which can be used to create synergy between the board of directors and management and thereby increase company financial performance. However, it remains unclear precisely how many directors represent a large or small board size. According to Lipton and Lorsch (1992), an optima board should contain at least eight to nine directors while Jensen, M. C. (1993) advocate an optimal board size of seven to eight members. The EAC code of governance does not recommend or mandate any specific number of directors for the listed companies' boards. However, it advises companies to have boards that are neither too small nor too large to hinder their decision-making (CMA, K 2002; CMA, U 2003). This study embraces the precepts of agency theory that suggest that a larger board creates agency costs and free rider problems which makes it difficult for boards of directors to effectively carry out their monitoring and supervisory functions (Jensen, M. C. 1993; Yermack 1996) .The current

study measured board size as the total number of directors. The researcher hence derived the following hypothesis to test the influence of board size on company financial performance:

There is a significant relationship between the board size and the company financial performance (H4).

3.3.5 Changes in corporate governance indicators before and after the establishment of the EAC Common Market

The establishment of the EAC- Common Market in 2010 led to the regional harmonisation of trade, taxation regimes, accounting systems, and security market listings rules within the region (Yabara 2012). The EAC has four securities exchange markets (SEM's) domiciled within the four EAC member states. All four EAC-SEMs have codes of corporate governance and good practices that constrain their listed companies and issuers of bond instruments. These codes provide a detailed framework for a number of the listed companies' features, including directors' conduct, board committee requirements, company administration, accountability, shareholders' rights, risk management and audit functions. The codes of governance in the EAC are neither compulsory nor legally binding on listed companies (CMA, K 2002), but merely provide guidance to stock market participants especially, listed companies, to ensure compliance with corporate ethical conduct and self-regulation protocols (CMA, K 2002).

One of the fundamental changes brought about by the operationalisation of the EAC- Common Market was the free movement of capital and labour among the member states. It was envisaged that the free movement of factors of production within the region would affect current corporate governance structures in the EAC and hence the EAC security markets had to prepare for change, as evidenced by the NSE's proposed changes to its code of corporate governance in 2014 (CMA, K 2014b). Other changes brought about by the operationalisation of the EAC- Common Market included an increase in the number of cross-listed companies within the EAC SEMs. Consequently, companies wishing to raise capital on any of the EAC's stock exchanges have to comply with the capital market requirements of that specific stock exchange, including the corporate governance changes. To identify any changes in the study's corporate governance indicators since the operationalisation of the EAC common market, the researcher adopted the following hypothesis:

There has been a significant change in corporate governance indicators following the operationalisation of the EAC- Common Market (H5).

Table 3.1 below, shows a summary of the hypotheses discussed in Section 3.3 above.

Table 3:1 Summary of hypotheses in the study

Variable	Hypotheses
H$_1$: Gender-diversity	There is a significant relationship between board gender-diversity of the board and company financial performance
H$_2$: Board independence	There is a significant relationship between board independence and company financial performance
H$_3$: Enterprise Risk Management	There is a significant relationship between company commitment to enterprise risk management and its financial performance.
H$_4$: Board size	There is a significant relationship between board size and company financial performance
H$_5$: Changes in corporate governance indicators (gender diversity, board independence, enterprise risk management and board size) in the EAC	There has been a significant change in corporate governance indicators following the operationalisation of the EAC-Common Market.

3.4   Control Variables

According to Bowerman et al. (2003), a study control variable is a variable which is held constant during the course of an experiment, in order to assess or clarify changes in other independent variables. Depending on the nature of the experiment, there may be one or more controlled variables in a study (Zikmund et al. 2012). The OLS multiple regression formula uses a number of independent variables to estimate the unknown parameters in an OLS regression model (Atinc, Simmering & Kroll 2011). Control variables are used in regression models to determine their explanatory power exclusive of the independent variables (Tabachnick & Fidell 2006). To determine the statistical relationship between corporate governance and company performance, this study used company size as the control variable. Company size in this study is measured by the natural logarithm of total assets and market capitalisation.

According to Cho and Kim (2003), and Mohamad Ariff, Kamil Ibrahim and Othman (2007), there is a positive relationship between company size and financial performance, while Gompers, Ishii and Metrick (2003) and Brown and Caylor (2006) found an inverse relationship between company size and financial performance. Durnev and Kim (2005) suggest that the governance of large companies often attracts attention from a wide spectrum of stakeholders, especially market analysts and investors. It is thus important for big companies to adopt good corporate governance, to avoid poor market perceptions that may destroy their market value. Furthermore, large companies are believed to possess a larger resource pool of property, plant and equipment, and financial and human resources, all of which require the good management and control that can be achieved via a strong governance system (Durnev & Kim 2005). This study adopted company size as a control variable, as used in much corporate governance research (see Lins 2003; Mcconnell & Servaes 1990; Short & Keasey 1999; Xu & Wang 1999). Company size is measured by the natural logarithm of total assets and natural logarithm market capitalisation at the financial year-end (Anderson & Reeb 2003; Barontini & Caprio 2006; Wang 2006).

3.4.1 Market Capitalisation

Market capitalisation in this study is computed by multiplying the year-end market price per share by the total number of outstanding shares at the financial year-end (Heenetigala 2011). Market capitalisation represents the value of a company based on its perceived future economic prospects, and it has been used in many corporate governance studies as a control variable (see Alagha 2016; Black, Love & Rachinsky 2006; Heenetigala 2011). According to Yermack (1996), there is a positive relationship between market capitalisation and company financial performance; a company with a higher market capitalisation is considered to be less risky and relatively more profitable. Similarly, lower market capitalisation is associated with a high risk and poor profitability (Rashid, K 2008).

3.4.2 Total Assets

The total assets in this study represent the book value of all company assets (current and non-current) at the year-end. Prior studies of corporate governance and company performance have used total assets as the control variable (Alagha 2016; Heenetigala 2011; Pathan, Skully & Wickramanayake 2007). According to Alagha (2016); Heenetigala (2011); Pathan, Skully and Wickramanayake (2007), there is a statistically significant relationship between total assets and corporate governance. Hence, total assets are considered to positively influence the corporate governance variables used in the current study.

3.5   Dependent variables

This study adopted four dependent variables as proxies for company performance. These are accounting-based measures (ROE and ROA), and market-based measurements (LnTBQ and LnPER). According to Hall and Brummer (1999), accounting-based measurements, especially ROE and ROA, are very subjective and susceptible to creative accounting. They are also criticised for ignoring the time value of money, as they are based on historical figures derived using different accounting standards that do not use discounting factors to compute profits. However, Kaplan, RS and Norton (1996) believe that the use of a mix of performance measurements, such as accounting- based and market-based, helps to neutralise the shortcomings of using a single type of performance measure, hence this study adopted both accounting- based and market-based measurements to overcome the above weaknesses.

3.5.1   Return on Assets (ROA)

The ROA ratio measures the efficiency of the company in generating income using its total assets (Lesakova 2007). It is a financial performance ratio commonly used in assessing companies' economic health as well as the efficiency of investment portfolios (Basarab 2010; Lesakova 2007). According to Ingram and Albright (2006), the ROA ratio links all a company's annual operations to its investment activities. The ratio also measures the management's efficiency in the utilisation of company assets (Lesakova 2007).

The ROA is calculated as:

$$\text{ROA (\%)} = \frac{\text{Year-end Profits after Interest and Tax}}{\text{Total assets at the year-end}}$$

A higher ROA ratio indicates that a company has an enhanced ability to utilise its assets to generate a higher value for its owners (Basarab 2010; Haniffa, Ros, Abdul Rahman & Haneem Mohamed Ali 2006; Lesakova 2007).

3.5.2   Return on Equity (ROE)

The ROE measures company performance using return on investment. It focuses mainly on the management's ability to earn returns for equity holders in form of profits or financial surplus after deducting all expenses (Damodaran, 2007). The ROE represents the net amount of profits created by the company using the shareholders' invested funds (Khatab et al., 2011).

The ROE was calculated in this study as:

$$ROE (\%) = \frac{\text{Year-end Profits after interest and Tax}}{\text{Total shareholders' equity at the Year-end}}$$

A higher ROE ratio is an indicator of management's ability to generate extra earnings for shareholders (Khatab et al., 2011)

3.5.3   Tobin's Q ratio (TBQ)

The TBQ ratio uses market values as a measure of company performance. It can be computed as the ratio of company market value to total book value (Bhagat, Sanjai & Jefferis 2005). A company's lower TBQ ratio is an indicator of poor market confidence in its equity, which could be attributed to poor governance that reduces company profits (Weir, Laing & McKnight 2002). Gross (2007) suggests that the TBQ ratio is a hybrid measure of performance, being based on both accounting-based and market-based data. TBQ is calculated as the ratio of a company's market capitalisation to its total assets (Chorafas 2004).

$$TBQ = \frac{\text{Year-end market capitalisation}}{\text{Total assets at the Year-end}}$$

According to Leng (2004), the TBQ ratio measures the company's growth prospects due to its asset base. A TBQ value of 1 indicates that the company's market value is equal to the total value of its assets. If the ratio is greater than 1, the company's market value is greater than its book value of assets, and hence the company management is deemed to have created more value for shareholders (Chorafas 2004). On the other hand, a TBQ less than 1 indicates that the company's market value is lower than the total value of its assets, which may suggest that the company's market worth is being undervalued (Chorafas 2004). Similarly, Mans-Kemp (2014b) posits that a higher TBQ ratio is an indication that the managers' and shareholders' interests are well aligned via an effective corporate governance system, which may improve market perception of the company. A lower TBQ value is an indication of poor corporate governance mechanisms, which may negatively affect market perception of the company (Mans-Kemp 2014b; Weir, Laing & McKnight 2002).

3.5.4   Price Earnings Ratio (PER)

The PER is used to estimate the market value of a companies' shares using the year-end share price and earnings per share (EPS) (Bernstein & Wild 1993). The value of the company's PER depends on its existing corporate governance policy, past performance, future growth potential, and the industry risks (Bernstein & Wild 1993). For example, when a company has

superior past performance results (profitability) and high future growth potential (such as in sales and earnings), it would also have a higher PER than a similar company with poor past performance and low growth potential (Bernstein & Wild 1993). Equally, a company with good corporate governance policies will attract positive market perception and may be considered less risky than its peers within a same industry. Likewise, high and stable dividend payouts will influence a company's PER because of its market-signalling impact. Consistent dividend pay-outs are a good signal to the market that a company is both financially strong and committed to rewarding its shareholders (Lease et al. 1999). Finally, PER is influenced by the company risk, particularly the finance risk or the risk of having debt capital within its capital structure. The presence of debt capital affects both earnings and share price, hence reducing earnings growth. This also increases the risks of bankruptcy, and can sometimes affect the company's financial results. Thus, lower leverage is associated with higher PER ratio and vice versa (Bernstein & Wild 1993). This study calculated PER using the following formula:

$$PER = \frac{\text{Company's year-end share price}}{\text{Earnings per share (EPS)}}$$

Table 3.2 below, presents a summary of the units of measure used in this study.

Table 3:2 Measure of dependent and independent variables

Group	Variables	Unit of measure	Symbol
Corporate governance indicators	Gender diversity of the board	The percentage of female directors to the total number of directors	GB
	Board independence	The percentage of non-executive directors to the total number of directors	BI
	Enterprise Risk Management	The presence of a chief risk officer and an audit and risk committee (dummy variable)	RM
	Board size	The total number of directors (on the board)	BS
Control Variables	Company size	Total assets at the year-end (in natural log)	LnTA
		Market capitalisation at the year-end (in natural log)	LnMC
Company financial performance	Return on Assets	Year-end Profits after Interest and Tax, divided by total assets.	ROA
	Return on Equity	Year-end Profits after Interest and Tax, divided by total shareholder equity	ROE
	Tobin's Q ratio	Year-end Market Capitalisation, divided by total assets (in natural log)	LnTBQ
	Price-Earnings Ratio	Company's year-end share price, divided by its earnings per share (in natural log)	LnPER

3.6   Conclusion

This chapter described the conceptual framework of the study, identified and discussed each component of the corporate governance framework. The conceptual framework consists of three main components: 1) the independent variables (gender diversity of the board, board independence, enterprise risk management and board size), 2) the dependent variables (measures of company financial performance, using ROE, ROA, TBQ and PER as proxy for company financial performance); and (3) the control variables represented by company size, which is measured by the natural log of total assets (LnTA) and natural log of market capitalisation (LnMC). Additionally, the chapter outlined the study's hypotheses and the units of measurement for each of the variables in the conceptual framework. The next chapter will discuss the methodology used for testing the hypotheses in the conceptual framework.

Chapter 4   Research Methodology

4.1   Introduction

This chapter discusses the research approach adopted in this study. According to Gill and Johnson (2010), a research method provides the outline of a research study by describing the characteristics of the research data, the data collection method and the analytical tools used by the researcher. The structure of this Chapter is as follows: Section 4.2 identifies the research paradigm used in this study; Section 4.3 looks at data collection and sample selection; Section 4.4 focuses on the assumptions of linear regression; Section 4.5 is about data transformation and outliers; Section 4.6 covers the goodness of fit; Section 4.7 looks at the research ethics pertaining to the research method, while Section 4.8 concludes the chapter.

4.2   Research paradigm

According to Veal (2005, p. 24), a paradigm is defined as "a shared framework of assumptions held within a discipline, sub discipline or school of thought within a discipline". It represents basic philosophical principles about the nature of the world, the scientific problem and the solutions that arise from the research. A research paradigm influences the research method adopted to achieve specific research objectives (Veal 2005). Each paradigm is based on explicit sociological and scientific assumptions about the research (Okiro 2014). Henn, Weinstein and Foard (2005), identified two major types of research paradigms that exist in social science research, namely the positivist and the critical or interpretive paradigms.

4.2.1   The positivist paradigm

The positivist paradigm is also known as the empiricist, scientific, quantitative or deductive paradigm (Henn, Weinstein & Foard 2005). Under this type of paradigm, a researcher is perceived to be independent from his or her research study, and the behaviour of the person (s) or study group(s) used in the study is explained using only facts and observations (Veal 2005). The positivist paradigm depends on three principal assumptions:

- firstly, the cause and effect must be identified in order to explain phenomena and to test a theory;

- secondly, knowledge is based on what can be tested by observing tangible evidence; and

- thirdly, a researcher must use a scientific method that emphasises control, standardisation and objectivity (Gill & Johnson 2010; Henn, Weinstein & Foard 2005; Veal 2005).

These assumptions help to clarify the research structure, and help the researcher to carry out research on a large scale with the help of some quantitative statistical data analysis tools (Henn, Weinstein & Foard 2005). The positivist paradigm is usually applicable in quantitative research on a large scale, using theories and hypotheses developed prior to the empirical study (Henn, Weinstein & Foard 2005; Veal 2005).

4.2.2 The critical paradigm

The critical or interpretive paradigm is also known as "qualitative, phenomenological, hermeneutic, inductive, interpretive, reflective, ethnographic or action research" (Veal 2005, p. 25). It assumes that human behaviour can be studied in the same way as non-human phenomena (Henn, Weinstein & Foard 2005; Veal 2005). The critical paradigm assumes that the world is socially constructed, and that "the reality studied depends on the actors involved in a given social milieu" (Veal 2005, p. 24). The researcher relies on the persons being studied to offer their own explanation of the behaviour to be examined in the research, thereby enabling the researcher to achieve a deeper understanding of the participants' point of view (Henn, Weinstein & Foard 2005; Veal 2005). The differences between the positivist and critical paradigms are summarised in Table 4.1 below.

Table 4:1. Key differences between positivist and critical paradigms:

Particulars	Positivist paradigm	Critical paradigm
1. The researcher	Must be independent	Is part of what is being observed
2. Explanations	Must demonstrate causality	Aims to enhance understanding of the situation
3. Research design	Hypotheses and deductions	Big data from which ideas are induced
4. Concepts	Need to be operationalised so that they can be measured	Should incorporate stakeholder perspectives
5. Units of analysis	Should be reduced to simplest terms	May include the complexity of 'whole' situations
6. Generalisation	Through statistical probability	Through theoretical abstraction
7. Sampling requires	Large numbers, selected randomly	Small number of cases, chosen for specific reasons

Source (Ramanathan 2009, p. 40)

Table 4.1, above, identified seven key differences between the positivist and critical paradigms considered by researchers in a research methodology. Clearly, the assumptions of positivist and critical paradigms differ (see Table 4.1), but the two paradigms can be adopted concurrently, and a researcher can use mixed methods in a study. Henn, Weinstein & Foard (2005), and Veal (2005), believe that researchers enjoy more flexibility in arriving at their research objectives if they adopt mixed methods, while Easterby-Smith, Thorpe and Jackson (2012) have argued that the use of mixed methods helps the researcher to achieve more extensive research results. The positivist/critical dichotomy can be likened to other research dichotomies such as quantitative/qualitative and deduction/induction methods (Henn, Weinstein & Foard 2005; Veal 2005).

4.2.3   Quantitative and qualitative research

The traditional quantitative research approach involved the use of quantitative data collection, analysis and presentation methods in a study (Henn, Weinstein & Foard 2005; Veal 2005). The main advantage of quantitative methods is that they enable researchers to summarise and analyse big volumes of quantitative data from a large population and come up with meaningful statistical results and interpretations (Veal 2005).

 The qualitative approach involves the gathering of relatively large amounts of qualitative data from a small study sample (Veal 2005). Using this approach, a case study of one or two organisations, or just a few individuals, can be used as a representative sample (Veal 2005). Qualitative researchers often use observation and unstructured and in-depth interviewing as their methods of data collection (Veal 2005).

4.2.4   Inductive and deductive approaches

An inductive research method involves a researcher adopts a three-step research approach, beginning with (1) observation, description, or data collection, then (2) analysis, and finally (3) explaining data or conducting hypothesis testing (Veal 2005). Proponents of the inductive research approach claim that there is always an element of induction in every research study (Veal 2005). According to Easterby-Smith, Thorpe and Jackson (2012), data collection happens before explanation in most research studies using an inductive approach, so it is not possible to develop theories and hypotheses before data collection.

In contrast to the inductive approach, the deductive approach begins with the researcher developing an explanation or hypothesis from either literature review or informal observation (Veal 2005). This is followed by the analysis and, finally, observation, description, or data collection (Veal 2005) . The deductive approach is based on the assumption that the absence of explanatory or hypothetical theory makes it practically impossible for a researcher to decide the kind of data to be collected; hence, there is always a deductive element in most research studies (Henn, Weinstein & Foard 2005; Veal 2005). According to Collins (2010), a deductive approach is often adopted if the researcher wants to compare relationships between variables. Generally, in practice many positivist researchers adopt the deductive approach, while interpretive researchers have a tendency to use the inductive approach (Veal 2005). However, a researcher can adopt both deductive and inductive approaches in a single study, hence the belief that most research studies are partly inductive and partly deductive (Veal 2005).

The main aim for this study was to examine the influence of corporate governance on the financial performance of listed companies within the EAC. To achieve this objective, the researcher adopted the positivist paradigm and the deductive approach, using quantitative techniques to identify the causes and effects of social phenomena (Collis & Hussey 2013). This quantitative approach is often used in corporate governance and company performance studies (Alagha 2016; Heenetigala 2011; Waduge 2011). The researcher adopted a deductive approach, in which hypotheses were developed from the review of existing literature, and data were collected and used to confirm or negate the proposed hypotheses. Hypothesis testing in this study is based on secondary data from published statistics and annual reports.

The use of a deductive approach and hypothesis testing method is a consistent with a quantitative research approach (Gill and Johnson, 2010) and was adopted in this study due to its advantages over the qualitative approach. For instance, the use of numerical measurement in the quantitative approach makes it easier for research analysis and presentation of results for explanatory purposes. Additionally, the quantitative approach has less bias error than the qualitative approach (Collis & Hussey 2013). Furthermore, according to Veal (2005), a qualitative approach does not often provide researchers with the same level of rigour as a quantitative approach. The quantitative data in this study were obtained from secondary sources, which is the most commonly used method for obtaining data in corporate

governance and company performance research studies (Adams, R, Hermalin & Weisbach 2008; Alagha 2016; Haniffa, R. & Hudaib 2006; Heenetigala 2011; Kiel & Nicholson 2003; Klein 1998; Laing & Weir 1999; Tshipa 2015; Waduge 2011). The researcher's choice of a quantitative approach was therefore based on its suitability in addressing the aforementioned aims of this study.

4.3   Data collection and sample selection

According to Collis and Hussey (2013), researchers have three basic choices of data sources, namely (1) primary data, which involves the seeking of new data collected for a specific research study, (2) secondary data, that is existing data that may have been collected for other purposes, or (3) a combination of primary and secondary data. The primary data can be collected via interviews, observation or questionnaires (Collis & Hussey 2013). Veal (2005) argues that a researcher may use secondary data if it effectively addresses the research objectives. The commonly used type of secondary data in business research is internal company information such as financial data and human resource records (Mans-Kemp (2014a). Other secondary sources used in business research may include data from national bureaus of statistics, professional organisations or archived resources (Veal 2005). Large volumes of electronic data are often available from universities and government departments or agencies, in form of academic journals and databases (Zikmund et al. 2012). The main advantage of using secondary data rather than primary data is that the former are often readily available at a relatively lower cost than the latter (Zikmund et al. 2012). However, not all secondary data can be accessible free of charge, and vast amounts of data are nowadays only accessible at a considerable cost (Babbie 2013; Zikmund et al. 2012).

The current study used secondary data source because the data required for the purpose of the thesis were available in annual reports of companies. The use of secondary data in the current study is consistent with other accounting, finance and corporate governance research studies, in which researchers clearly stated that they used secondary data to save time and money (Beasley, MS 1996; Heenetigala 2011; Ngwenya & Khumalo 2012; Okiro 2014; Waduge 2011). The type of secondary data used in this study includes journal articles, e-books, press releases and websites, which were used in conducting the literature review on corporate governance and company financial performance. The researcher also obtained financial data from well-established databases subscribed to by Victoria University's library, namely Orbis Bureau Van Dijk, DataStream, Eikon and Mint Global Bureau Van Dijk. Supplementary

corporate governance data sources, such as published companies' annual reports and company websites was used in the current study.

Microsoft Excel and Statistical Package for the Social Science (SPSS) version 23 were used for data handling and analysis. Excel was used for managing and formatting the data, prior to exporting into SPSS for statistical applications. SPSS was used to carry out the preliminary diagnostic tests, descriptive statistics, Wilcoxon signed-rank test, correlation, and linear regression analyses. According to Field (2009), SPSS is capable of providing comprehensive outputs for analyses such as descriptive statistics, model analysis, multiple regressions and correlation analysis.

4.3.1   Sampling framework and selection

According to Malhotra (2010), a sample can be defined as the fraction of the population's elements nominated for a research observation. A data sample is used in a research study to test hypotheses so as to draw inferences about the population (Veal 2005). Researchers often use a representative sample to study an element of a population, rather than the whole population, because it is more economically viable in terms of time and cost (Zikmund et al. 2012).There are two main types of sampling techniques commonly used in quantitative research, namely probability and non-probability sampling.

The main assumption underlying probability sampling is that every population element in the sample has a known probability of being picked as a representative (Zikmund et al. 2012). Probability sampling is further broken down into four types: simple random, systematic, stratified and cluster sampling (Levine, Berenson & Stephan 1999). In a simple random sample, every individual in the sample has an equal chance to be selected (Levine, Berenson & Stephan 1999). Likewise, systematic sampling is a type of probability sampling where members from a larger population are selected randomly (Malhotra 2010). A stratified sample is arrived at by dividing the population into strata, based on specific characteristics, from which equal numbers are randomly selected (Levine, Berenson & Stephan 1999).

Finally, cluster sampling involves dividing the population into clusters, based on their proximity, with each cluster presumed to be representative of the population (Malhotra 2010; Zikmund et al. 2012). A non-probability sampling technique, on the other hand, is adopted where there is a high chance that a particular element of a population will not be selected or where a sampling frame does not exist, due to difficulties in locating some elements within a

population (Monette, Sullivan & DeJong 2013). The sample selection under non-probability sampling is based on the researcher's own judgement (Malhotra 2010). This makes non-probability sampling quicker, more economical, and easier to use sampling technique (Levine, Berenson & Stephan 1999).

The researcher used non-probability sampling to select the forty-two listed companies used in the current study. Listed companies were preferred because unlike private companies, their information is publicly available and they tend to provide the information necessary to identify their corporate governance structures (Okiro 2014). The researcher initially intended to use as a population all the listed companies on the EAC Security Markets in 2008/2009 and 2013/2014. A total of 108 companies were listed on the EAC Security Markets as at 31st June 2014. These included sixty-six companies listed on the NSE, twenty-one companies on the DSE, sixteen companies on the USE, and five companies on the RSE. However, not all the listed companies qualified to be included in the sample. Sixty-six EAC listed companies were excluded either because they were not listed on the EAC stock market for the full financial years 2008/2009 and 2013/2014, or because their annual reports were not available from the DataStream, Eikon and Mint Global Bureau Van Dijk databases.

Eventually, this study used a final sample of forty-two listed companies, 30 from the Nairobi Securities Exchange (Kenya), 7 from the Dar es Salaam Stock Exchange (Tanzania) and 5 from the Uganda Securities Exchange (Uganda). None of the companies from the Rwanda Stock Exchange met the above two conditions and hence were left out of the study (See Appendix 1 for the list of companies used in this study). This study was a comparative one, the researcher adopting data for 2008/2009 and 2013/2014 as representative of the period before and after operationalisation of the EAC- Common market in 2010. The establishment of the EAC- Common market in 2010 resulted in mobility of capital, labour, and entrepreneurship between the five EAC countries. Consequently, the member states were required to harmonise their corporate governance policies, the laws that govern trade and business operations, accounting systems and corporate governance practices (Masinga & Machira 2014). According to Heenetigala (2011) a four-year period is sufficient time to measure the impact of changes in corporate governance on the performance of listed companies, while Alagha (2016) took two years to compare changes in corporate governance among listed companies in the United Arab Emirates. Consistent with Heenetigala (2011),

this study used four years (2013/2014) after the establishment of the EAC- Common Market in July 2010 as representative of the corporate governance conditions that existed after the operationalisation of the EAC- Common Market, while 2008/2009 represented the period before the operationalisation.

4.4 Assumptions of the linear regression model

There are four principal assumptions underlying the conditions of a linear regression model that have to be met prior to using the model for inference or prediction. These are: (i) there is a linear relationship between dependent and independent variables; (ii) the slope of the regression line does not depend on the values of the other variable, (iii) the errors exhibit homoscedasticity (constant variance); and (iv) the error distribution is a normal one (Zikmund et al. 2012). If any of these assumptions is violated (i.e., if there are nonlinear relationships between dependent and independent variables, multicollinearity, heteroscedasticity, or non-normality of error distribution) then data inference and analysis based on the regression model may be (at best) inefficient or (at worst) seriously biased or misleading. To ensure that these assumptions of linear regression model have not been violated, nonlinear transformation using the natural logarithm was performed on the relevant independent and dependent variables. In addition, diagnostic statistic tests were used to determine whether there had been a violation of the regression model assumptions and to ascertain the validity of the linear regression models.

4.4.1 Diagnostics statistics tests

The diagnostic statistics tests were adopted in this study to ascertain the validity of the regression models used to test the relationship between corporate governance and company financial performance. Diagnostic statistical tests were precisely carried out to examine the regression analysis assumptions, including normality of the error distribution using the Shapiro-Wilk test, homoscedasticity test using the Koenker test, multicollinearity, the coefficient of variation tests and the goodness fit. To achieve representative diagnostic results, the researcher transformed some of the variables using a natural logarithm as a means of attaining the model fit. All the natural logarithm transformed variables are identified with the "Ln" prefix such LnTBQ, LnPER, LnTA and LnMC. Similar log transformation has been adopted in previous corporate governance, finance and accounting studies, such as those of Berger, Imbierowicz & Rauch 2016; Okiro 2014; Waduge 2011.

4.4.2 Normality of the error distribution

Normality of the error distribution is one of the key assumptions in regression (Ghasemi & Zahediasl 2012). The regression analysis assumes an approximately normally distributed error for each category of the dependent and independent variable (Ghasemi & Zahediasl 2012). So, it is necessary that data is tested for normality to ascertain that it does not deviate from normality assumptions if regression analysis is to be used in a research study (Elliott & Woodward 2007). The normality of error distribution in this study was validated using the Shapiro-Wilk test, which is the best measure for detecting departures from normality distribution due to either skewness or kurtosis (Baty et al. 2015). Under the Shapiro-Wilk test, the null hypothesis states that there is no difference between the observed distribution of survey scores and a normally distributed sample error. Hence, if the critical alpha is larger than the obtained p-value, the null-hypothesis is rejected (Shapiro & Wilk 1965). The results of the normality test are discussed in Chapter 5.

4.4.3 Multicollinearity test

According to Field (2009); Veal (2005) and Zikmund et al. (2012), a multicollinearity problem arises whenever there is a strong relationship between two (or more) independent variables. Multicollinearity increases the standard errors of the coefficients. By overinflating the standard errors, multicollinearity causes variables to become not statistically significant when they should be significant. Thus, multicollinearity leads to misleading results. The researcher tested the study data for multicollinearity by referring to the variance inflation factor (VIF), a measure that was also used in studies by O'Brien (2007), Field (2009) and Montgomery, Peck and Vining (2015). Using the VIF, a multicollinearity problem is assumed not to be present when the predictor variables have a VIF below 10.0 (Field 2009; O'Brien 2007). The data in this study did not have a multicollinearity problem, as indicated by the results of the VIF test which are discussed in Chapter 5

4.4.4 Homoscedasticity test

Homoscedasticity is an important assumption in regression analysis. Although the estimator of the regression parameters may be unbiased, when the homoscedasticity assumption is violated, the estimator of the covariance matrix of the parameter estimates will be biased and inconsistent (Hayes & Cai 2007). The test of homoscedasticity determines whether a regression model's ability to predict a dependent variable is consistent across all values of that variable (Zikmund et al. 2012). Hayes and Cai (2007) indicate that the absence of homoscedasticity (that is the presence of heteroscedasticity) can undermine statistical

significance tests by making the estimator of the regression covariance matrix inconsistent and biased.

The presence of homoscedasticity was tested in this study using the Koenke tests in the SPSS macro developed by Garcia-Granero (2002). According to Watson and Teelucksingh (2002), the Koenker test is very simple to understand and can be carried out with small data samples which rendered it suitable for this study's small data sample. The null hypothesis of the heteroscedasticity test implies that there is no conditional heteroscedasticity and thus the individual-specific or time-specific variance error components are equal to zero (Park 2011). The above liner regression assumptions were tested and their results are summarised in Chapter 5, with the threshold levels for the respective test statistics indicated under each assumption. The homoscedasticity assumptions of regression were met, and consequently the current study adopted the retrogression analysis to test the study's hypotheses.

4.4.5   Coefficient of variation

The coefficient of variation is calculated as the ratio of the standard error of the estimate (also known as the root mean square error (Aiken, West & Pitts 2003) to the mean of the dependent variable or the range (Cook & Krishnan 2015). There is no acceptable threshold for a coefficient of variation as it can vary across different disciplines. However, the lower the coefficient of variation, the smaller the residuals relative to the predicted value, which suggests a relatively good model fit, as compared to a higher coefficient of variation. Nonetheless, there is a drawback in using the coefficient of variation to assess model fit when a variable contains a positive and negative coefficient of variation values and the mean is close to zero, which gives a misleading result (Cook & Krishnan 2015). Because this study aims to investigate the relationship between variables, rather than developing a predictive model, the coefficient of variation is used in this study to compare the size of the residual relative to the predicted value between models. The results of the coefficient of variation are discussed in Chapter 5.

4.5   Data transformation and outliers

Data transformation can be carried out by applying a non-linear function to data such as a log, square root, or reciprocal function and analysing the results, rather than the raw data. According to Roberts (2008), the main objective for data transformation is to reduce or eliminate outliers. Bowerman et al. (2003) defined an outlier as any observation with characteristics very different from a population. The data used in this study were not

normally distributed, so some obviously extreme outliers were removed and the researcher adopted natural logarithm transformation to improve the normality of data distribution (Osborne 2010). A logarithm is the power (exponent) a base number must be raised to in order to get the original number (Osborne 2010). Natural log transformation of variables in a regression analysis is very common when managing data with non-linear relationships between the independent and dependent variables (Lutkepohl & Xu 2012). Using the logarithm helps in transforming non-linear relationships between variables, while preserving the linear model (Osborne 2010). Logarithmic transformations are a useful means of changing a highly skewed variable into one that is more approximately normal (Doane & Seward 2011). According to Osborne (2010), the natural log transformation approach is normally used when (1) the study variables (or their error terms) are not normally distributed, and (2) where there is a homoscedasticity problem. The most commonly used logarithmic transformation involves taking the natural logarithm, denoted Ln or $\log_e$ or simply the log of each data value. There are different kinds of logarithms, such as log base 10 or log base 2. However, the natural logarithm, which can be thought of as log base e, where e is the constant 2.718282, is the most common logarithmic scale (Zikmund et al. 2012). Hence this study adopted the natural logarithm to transform two dependent variables (LnTBQ and LnPER) and two control variables (LnTA and LnMC) in order to strengthen the of the residual distribution.

4.6   Goodness of fit

A well-fitting regression model generates predicted values close to the observed data values. Generally, there are three statistical measures for evaluating model fit: R-squared, the overall F-test, and the coefficient of variation (Elliott & Woodward 2007; Ghasemi & Zahediasl 2012).

4.6.1   R-squared

R-squared measures the percentage of the variation in the dependent variable which is being explained by the independent variables (Elliott & Woodward 2007; Ghasemi & Zahediasl 2012). R-squared is also known as the coefficient of determination. An R-squared value of one indicates perfect fit between the regression model and the response variable. Because this study aims to investigate the relationship between variables (corporate governance indicators and company financial performance), an R-squared value in the range of 0.10 to 0.15 is considered reasonable (Grace-Martin, 2012).

4.6.2 F-test of overall significance

Although R-squared provides an estimate of the strength of the relationship between the model and the response variables, it does not provide a formal hypothesis test for this relationship (Bowerman et al. 2003) . The F-test of overall significance, on the other hand, determines whether a group of variables are jointly significant, even though some of the independent variables may not be significant in the model. This test is used as a preliminary test of the significance of the model, prior to examining the impact of the corporate governance indicators on the respective dependent variables. If the p-value for this test is less than the significance value, there is model significance in which at least one of the independent variables is significant in explaining the dependent variable (Field 2009).

4.6.3 The Wilcoxon signed-rank test

The current study also used the Wilcoxon signed-rank test to compare two related samples used in this study (Zikmund et al. 2012). The Wilcoxon signed-rank test is a non-parametric statistical test used to compare two related samples, matched samples, or repeated measurements on a single sample, to assess whether their population mean ranks differ (i.e. it is a paired difference test) (Zikmund et al. 2012). When the data is assumed not to be approximately normally distributed, non-parametric statistics will be used for statistical analysis (Veal 2005; Zikmund et al. 2012). In general, when a dataset is ordinal or nominal, it is not correct to assume that the population has a normal distribution (Rubin 2012). The current analysis used non-parametric statistical analysis because the data used in the study were not approximately normally distributed. Similar non-parametric statistical techniques have been used in previous corporate governance and company performance studies to test the relationship between corporate governance practices and company financial performance (Alagha 2016; Heenetigala 2011; Waduge 2011). The Wilcoxon signed-rank test is numerically equivalent to the Mann-Whitney U test or the two-sample t-test (Zimmerman 1998). It-tests the null hypothesis that the two distributions are identical against the alternative hypothesis that the two distributions differ only with respect to the median. The results of the Wilcoxon signed-rank test are discussed in Chapter 5.

4.6.4 Descriptive Statistics

This study used the mean, median, standard deviation, minimum and maximum to describe the characteristics of the study's independent variables (corporate governance indicators) and dependent variables (company financial performance variables). Descriptive statistics were also used to describe observations, summarise data trends and patterns and make comparisons

between the study variables during the two study periods (2008/2009 and 2013/2014). All these analyses helped to identify the influence of corporate governance indicators on company financial performance, the extent to which the EAC-listed companies had changed their corporate governance practices and the impact of these changes on company financial performance.

a) The arithmetic mean or average

The arithmetic mean is the most commonly used measure of central tendency in business research (Levine, Berenson & Stephan 1999; Okiro 2014). It is computed as a summation of all observed values divided by the total number of observations. This study used a trimmed mean which is arrived at after removing outlier values from the research data (Howell 2013). An outlier value is an extreme value that is excessively larger or smaller than most observed data values. It is thus important that a researcher analyses the impact of the outlier values to avoid extreme distortions to the arithmetic mean results (Bickel & Lehmann 2012).

b) The median

The median is the numerical middle value of a dataset that is organised in either an ascending or descending order (if there is an odd number of a data point). The use of the median does not require a researcher to have a normally distributed dataset (Howell 2013). This measure has the advantage of being unaffected by outliers (Howell 2013; Levine, Berenson & Stephan 1999). However, the median is less representative than the mean because it only considers the middle value, while ignoring all other values.

c) Standard deviation, Maximum and Minimum

The Standard deviation is a statistical measure of the dispersion or variation in data distribution, and is calculated as the square root of the variance (Bickel & Lehmann 2012). The variance measures the dispersion, i.e. how observations are spread out around the mean. In statistics, the sample maximum and sample minimum, also called the biggest observation, and lowest observation, are the values of the highest and lowest elements of a sample (Howell 2013).

4.6.5 Correlation analysis

Correlation analysis looks at the relatedness of two or more ratios or ordinal variables and is measured by the correlation coefficient (Howell 2013). The correlation coefficient value varies between +1 and -1. A correlation coefficient value of ± 1 implies a perfect positive/negative correlation, while, a value close to 0 implies a weak relationship between the two variables. There are two main types of correlations- the Spearman correlation and the

Pearson correlation. The Spearman correlation coefficient is a non-parametric test used to measure the degree of relativeness between two variables. According to Zikmund et al. (2012), Spearman's rank correlation is recommended for use when the data is not normally distributed, when ordinal data are included or when the researcher suspects a nonlinear relationship between the study variables. An examination of the current study's data revealed no approximate normal distribution. Hence, this study used Spearman's rank correlation analysis to examine the relationship between the corporate governance elements (gender diversity of the board, board independence, enterprise risk management, and board size), the control variables (natural logarithm of total asset and market capitalisation) and the financial performance variables (LnPER, ROE, ROA and LnTBQ). Spearman's rank correlation has been used in previous research on corporate governance and company performance studies (Abdullah, SN 2004; Alagha 2016; Heenetigala 2011).

4.6.6 Ordinary least squares (OLS) regression

The OLS regression is the most extensively used statistical method for fitting linear statistical models and for estimating parameters of interest in a multiple linear regression (Hayes & Cai 2007; Zikmund et al. 2012). According to Zikmund et al. (2012), the OLS regression is considered a straightforward method of statistical analysis which guarantees that the resulting straight line will produce the least possible total error in using X to predict Y. The OLS model can be derived using the following equation:

$$Y_i = \beta_0 + \beta_1 x + \mathcal{E} \qquad\qquad 4.1$$

Where:

- Y_i = the dependent variable

- X = the independent variable

- β_0 = intercept

- β_1 = slope and

- $\mathcal{E}$ = error term.

The above equation was used to derive equation 4.2 and the subsequent 4 equations that were used in this study.

$$Y_t = \beta_0 + \beta_1 GB + \beta_2 BI + \beta_3 RM + \beta_4 BS + \beta_6 LnTA + \beta_7 LnMC + \mathcal{E}_t \qquad 4.2.$$

Where

- β_0 = intercept

- β_i = slope, where i is 1, 2, 3, 4 or 5

- Y_t represents dependent variable (namely LnPER, LnLnTBQ, ROE or ROA) at time 't',

- GB = Gender diversity of the board,

- BI = Board independence,

- RM = Enterprise risk management,

- BS = Board size,

- LnTA = natural log of total assets

- LnMC = natural log of market capitalisation, and

- $\mathcal{E}_t$ represents the margin of error due to other factors outside the model that may influence Y_t.

The researcher thus derived the following four model equations used to test the study hypotheses with the help of SPSS version 23.

a) $ROA_t = \beta_o + \beta_1 GB + \beta_2 BI + \beta_3 RM + \beta_4 BS + \beta_6 LnTA + \beta_7 LnMC + \mathcal{E}_t$ 4.3

b) $ROE_t = \beta_o + \beta_1 GB + \beta_2 BI + \beta_3 RM + \beta_4 BS + \beta_6 LnTA + \beta_7 LnMC + \mathcal{E}_t$ 4.4

c) $LnTBQ_t = \beta_o + \beta_1 GB + \beta_2 BI + \beta_3 RM + \beta_4 BS + \beta_6 LnTA + \beta_7 LnMC + \mathcal{E}_t$ 4.5

d) $LnPER_t = \beta_o + \beta_1 GB + \beta_2 BI + \beta_3 RM + \beta_4 BS + \beta_6 LnTA + \beta_7 LnMC + \mathcal{E}_t$ 4.6

These equations were used to test the hypotheses for the period before (2008/2009) and after (2013/2014) the operationalisation of the EAC- Common Market. Data analyses were carried out using the SPSS version 23 and the macro on HCSE estimators developed by Hayes and Cai (2007) which is known to provide heteroscedasticity-consistent regression results (Hayes & Cai 2007).

4.7   Research ethics

Ethical consideration is very important in research especially when human respondents participate in the study (Bryman & Bell 2015). According to Bryman and Bell (2015) when secondary data is used in a research study without human involvement, the ethical risks are deemed to be remote. In this study, the researcher used only secondary data sources and hence was not required to seek the university's ethical approval, because there were no human respondents involved.

4.8   Conclusion

This chapter provided a discussion of the research paradigm, the data collection and sample selection methods, diagnostic tests, statistical analysis and the research ethics adopted in this

study. A quantitative analysis was conducted using the deductive research approach. The researcher adopted a positivist paradigm and used a quantitative research method. This study's hypothesis testing is based on secondary data from published statistics and annual reports. Secondary data on company financial performance (LnPER, LnTBQ ROA and ROE) were collected through the university's subscribed databases, namely DataStream, Eikon and Mint Global Bureau Van Dijk (2015). Microsoft Excel (version 2016) was used for data handling while Statistical Package for the Social Science (SPSS) version 23 was used to generate output from the data for descriptive statistics, Wilcoxon signed-ranked test, Spearman's rank correlation and OLS regression analyses. The next chapter presents a statistical analysis of the results of this study.

Chapter 5   Statistical Results

5.1   Introduction

This chapter covers the statistical analysis results obtained from examining the relationship between corporate governance variables (gender diversity of the board, board independence, enterprise risk management, and board size) and company financial performance. The results include descriptive statistics (mean, median, standard deviation, maximum and minimum) used for describing observations and summarising data trends and patterns for two study periods - 2008/2009 and 2013/2014. The Wilcoxon signed-rank test is used to compare two related samples used in this study, Spearman's rank correlation analysis is used to examine the correlation between the study variables and multiple regression analysis results are used to test the impact of the corporate governance variables on company financial performance. Hypotheses developed in Chapter 4 are tested and discussed in this chapter. The structure of the chapter is as follows: Section 5.2 covers the study's linear regression diagnostic test results, Section 5.3 reports the results of the descriptive statistics, Section 5.4 provides analysis results from Spearman's correlation, Section 5.5 reports the results of linear regression and Section 5.6 provides the chapter's conclusion.

5.2   Linear regression diagnostics test results

In this section, regression diagnostics are used to evaluate the model assumptions (as identified in Chapter 4) and to investigate whether or not there are observations with a large, undue influence on the analysis. Once the model assumptions are determined to be valid, analysis of the results can then be undertaken and inferences drawn. The diagnostic tests for residual normality distribution, heteroscedasticity, multicollinearity, and coefficient of variation were carried out to determine whether model assumptions have been violated for the sample in this study. The normality distribution of the residual was tested using the Shapiro-Wilk test, which is regarded as a powerful tool in detecting any departure from normality due to kurtosis, skewness or both (Baty et al. 2015). The Shapiro-Wilk test's statistical significance ranges from zero to one; significance values higher than 0.05 indicate that the residual is normally distributed (Baty et al. 2015; Razali & Wah 2011). Table 5.1 presents the test results of the normality, heteroscedasticity, multicollinearity and coefficient of variation used in this study to validate the regression model assumptions, and those results are discussed below.

Table 5:1. Linear regression's diagnostic test results

Threshold assumption :	Normality test	Heteroscedasticity test	Multicollinearity test	Coefficient of variation	Normality test	Heteroscedasticity test	Multicollinearity test	Coefficient of variation
	p > 0.05	p > 0.05	10 max	Low	p > 0.05	p > 0.05	10 max	Low
	Shap.Wilk	Koenker	VIF		Shap.Wilk	Koenker	VIF	
2013/2014					**2008/2009**			
ROA	0.076	0.064		0.193	0.124	0.036		0.245
GB			1.382				1.409	
BI			1.450				1.216	
RM			1.448				1.452	
BS			2.417				2.131	
LnTA			3.252				4.945	
LnMC			3.068				3.299	
ROE	0.930	0.064		0.117	0.780	0.036		0.092
GB			1.382				1.409	
BI			1.450				1.216	
RM			1.448				1.452	
BS			2.417				2.131	
LnTA			3.252				4.945	
LnMC			3.068				3.299	
LnTBQ	0.326	0.064		0.131	0.155	0.036		0.252
GB			1.382				1.409	
BI			1.450				1.216	
RM			1.448				1.452	
BS			2.417				2.131	
LnTA			3.252				4.945	
LnMC			3.068				3.299	
LnPER	0.438	0.064		0.177	0.852	0.036		0.239
GB			1.382				1.409	
BI			1.450				1.216	
RM			1.448				1.452	
BS			2.417				2.131	
LnTA			3.252				4.945	
LnMC			3.068				3.299	

Where: GB = Gender diversity of the board, BI = Board independence, RM =

Enterprise Risk Management, BS = Board size, LnTA = Natural logarithm of total

assets, LnMC = Natural logarithm of market capitalisation

5.2.1 Normality of the error distribution

The normality distribution of the residual was tested using the Shapiro-Wilk test, which is commonly used to detect any deviation from normality. The normality of error distribution proposition assumes the sample distribution to be normal if the p value is greater than 0.05 (Baty et al. 2015). The p values for the Shapiro-Wilk tests on residual normality in 2008/2009 for LnPER, were 0.852, LnTBQ = 0.155, ROE = 0.780 and ROA =0.124, while in 2013/2014 LnPER was 0.438, LnTBQ = 0.326, ROE = 0.930 and ROA = 0.076. These values are all above the significance value of 0.05, which therefore confirms that the residual is normally distributed in this study (Shapiro & Wilk 1965).

5.2.2 Multicollinearity

The multicollinearity test was carried out to test whether the predictor variables in the multiple regression analysis are correlated (Field 2009). The presence of high correlation among the independent variables makes it difficult to determine the actual contribution of the individual independent variables to the variance of the dependent variables (Field 2009). This is due to the fact that multicollinearity increases the standard errors of the coefficients by inflating the standard errors, thereby rendering some variables to be statistically insignificant when they should have been significant (Washington, Karlaftis & Mannering 2010). Multicollinearity was tested in this study using the Variance Inflation Factors (VIF). The maximum VIF threshold value for multicollinearity assumption is 10 (Field 2009; Montgomery, Peck & Vining 2015; O'Brien 2007). In this study, the VIF for the predictor variables in 2008/2009 ranged between 1.216 and 4.945 and in 2013/2014 from 1.382 to 3.252, which is below the recommended VIF threshold of 10 (Field 2009; Montgomery, Peck & Vining 2015; O'Brien 2007). I It is therefore evident that there is no multicollinearity problem in this study.

5.2.3 Homoscedasticity test

The researcher also carried out homoscedasticity testing using the Koenker tests in the SPSS macro developed by Garcia-Granero (2002). Heteroscedasticity can produce biased and misleading parameter estimates and its presence will violate the homoscedasticity assumption in the linear regression. The null hypothesis in the Koenker test assumes that homoscedasticity is present (or heteroscedasticity is not present). The p values of the Koenker tests of homoscedasticity in 2008/2009 and 2013/2014 are 0.036 and 0.064 respectively meaning that the data in 2008/2009 are not homoscedastic ($p<0.05$) while the data in 2013/2014 are homoscedastic. The data in the latter period violate the homoscedastic

assumption for regression. In order to address the heteroscedastic issue in 2008/2009, the researcher used the SPSS macro on HCSE (Heteroscedasticity-Consistent Standard Error) estimators for linear regression developed by Hayes and Cai (2007). This SPSS macro produces heteroscedasticity-consistent standard error that allows the fitting of a model containing heteroscedastic residuals (Hayes & Cai 2007), thus not violating the regression assumption on homoscedasticity.

5.2.4 Coefficient of variation

The coefficient of variation was calculated as the ratio of the standard error of the estimate to the range of the dependent variable (Cook & Krishnan 2015). The results of the coefficient of variation in 2008/2009 are as follows: ROA = 0.193, ROE = 0.117, LnTBQ = 0.131 and LnPER was 0.177. Similarly, in 2013/2014, the coefficient of variation for ROA = 0.245, ROE = 0.092, LnTBQ = 0.252 and LnPER = 0.239. According to Cook and Krishnan (2015), the lower the coefficient of variation, the smaller the residuals relative to the predicted value, this suggests a relatively good model-fit. The coefficient of variation shows that the sizes of the error, as a percentage of the dependent variables, vary between 9% and 25% in the two periods. However, this study simply aims to investigate the relationship between variables, rather than developing a predictive model and the coefficient of variation was only used in this study to compare the size of the residual relative to the predicted value between models.

5.2.5 Wilcoxon rank sum test

Table 5.2, below, provides the summarised results of the Wilcoxon signed-rank test using the study data.

Table 5:2 Wilcoxon signed-rank test results for 2008/2009 and 2013/2014

Variables		N	Mean Rank	Sum of Ranks	Z scores	Sig. (2-tailed)	Decision rule
ROA	2008/2009	42	42	1,541	-0.594	**0.552**	Retain the null hypothesis
	2013/2014	42	39	1,620			
ROE	2008/2009	42	41	1,513	-0.324	**0.746**	Retain the null hypothesis
	2013/2014	42	39	1,647			
LnTBQ	2008/2009	42	40	1,462	-0.182	**0.856**	Retain the null hypothesis
	2013/2014	42	40	1,699			
LnPER	2008/2009	42	42	1,375	-1.032	**0.302**	Retain the null hypothesis
	2013/2014	42	43	1,785			
GB	2008/2009	42	39	1,321	-1.600	**0.110**	Retain the null hypothesis
	2013/2014	42	44	1,840			
BI	2008/2009	42	40	1,483	-0.025	**0.980**	Retain the null hypothesis
	2013/2014	42	40	1,678			
RM	2008/2009	42	41	1,535	-0.861	**0.389**	Retain the null hypothesis
	2013/2014	42	39	1,626			
BS	2008/2009	42	42	1,387	-0.925	**0.355**	Retain the null hypothesis
	2013/2014	42	42	1,774			
LnTA	2008/2009	42	40	1,483	-0.029	**0.976**	Retain the null hypothesis
	2013/2014	42	40	1,677			
LnMC	2008/2009	42	42	1,353	-1.248	**0.212**	Retain the null hypothesis
	2013/2014	42	43	1,807			

Where: GB = Gender diversity of the board, BI = Board independence, RM = Enterprise Risk Management, BS = Board size, LnTA = Natural logarithm of total assets, LnMC = Natural logarithm of market capitalisation.

The Wilcoxon signed-rank test is used in this study to examine whether there are differences across the dependent and independent variables between the periods before (2008/2009) and after (2013/2014) after the establishment of the EAC- Common Market. The Wilcoxon signed-rank test in this study has a threshold of 0.05, i.e. there is a significant difference between the two data groups if the p-value is less than 0.05 (Pallant 2011). The results for the dependent variables (LnPER, LnTBQ, ROA, and ROE), independent variables (gender diversity of the board, board independence, enterprise risk management, and board size) and control variables (LnTA and LnMC) between these two periods were not significant (p>0.05). Hence, this indicates that there is no statistically significant differences in the dependent, independent and control variables before (2008/2009) and after (2013/2014) the establishment of the EAC-Common Market.

5.3   Descriptive statistics

This research study used the mean, median, maximum, minimum and standard deviation to identify the statistical characteristics of the study's dependent (LnPER, LnTBQ, ROA, ROE) and independent (gender diversity of the board, board independence, enterprise risk management, and board size) variables. Table 5.3, below, presents the descriptive statistics of these variables

Table 5:3 .Descriptive statistics

	No	Mean	Median	Std. Dev.	Minimum	Maximum	Years
ROA (%)	42	40.581	40.109	4.263	32.758	50.570	
ROE (%)	42	40.793	41.740	10.007	19.343	62.396	
LnTBQ	42	-0.856	-0.942	0.649	-1.802	0.712	
TBQ[1]	42	0.425	0.390	1.913	0.165	2.038	
LnPER	42	2.277	2.284	0.633	1.000	3.620	
PER[1]	42	9.743	9.812	1.884	2.719	37.341	
GB (%)	42	10.621	10.000	10.138	00.000	30.000	2008/2009
BI (%)	42	76.869	81.818	14.549	33.333	91.667	
RM	42	0.189	00.000	0.397	00.000	1.000	
BS	42	8.622	9.000	2.419	4.000	13.000	
LnTA	42	12.133	12.330	1.709	8.629	15.035	
TA[1] (US$)		185,944.6	226,493.2	5.5	5,590.6	3,387,087.0	
LnMC	42	3.945	4.218	1.543	0.939	6.616	
MC[1] (US$)		51,200	68,000	5.0	3,000	747,000	
ROA (%)	42	40.009	39.083	9.085	19.105	63.863	
ROE (%)	42	39.229	41.318	11.497	7.090	64.121	
LnTBQ	42	-0.764	-0.818	1.134	-2.882	1.937	
TBQ[1]		0.466	0.441	3.107	0.056	6.936	
LnPER	42	2.403	2.430	0.722	0.569	3.958	
PER[1]		11.056	11.364	2.058	1.766	52.375	
GB (%)	42	15.737	15.385	13.897	0.000	50.000	2013/2014
BI (%)	42	76.106	80.909	15.551	33.333	93.333	
RM	42	0.119	0.000	0.328	0.000	1.000	
BS	42	9.262	9.000	2.777	5.000	15.000	
LnTA	42	12.12	12.23	1.85	8.57	15.40	
TA[1] (US$)		182,816.7	205,616.1	6.4	5,280.8	4,877,776.9	
LnMC	42	4.45	4.45	1.68	0.89	7.81	
MC[1] (US$)		85,500	85,700	5.3	24,000	2,474,100	
Where: GB = Gender diversity of the board, BI = Board independence, RM = Enterprise Risk Management, BS = Board size, LnTA = Natural log of total assets, LnMC = Natural log of market capitalisation							

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[1] Values transformed from natural log to original values

5.3.1　Return on assets (ROA)

Return on assets was calculated in this study as the percentage of year-end profits after interest and tax, divided by the total assets. Analysis of 2008/2009 descriptive statistics on ROA, as shown in Table 5.3, indicates a mean of 40.58%, median of 40.11%, standard deviation of 4.26, minimum of 32.76% and maximum of 50.57%. For 2013/2014, the mean ROA was 40.01%, median 39.08%, standard deviation 9.09, minimum 19.11% and maximum 63.86%. There is a positive mean value in both periods, which indicates that the EAC-listed companies in this study on average generated a similar positive return of about 40% on assets for their shareholders before (2008/2009) and after (2013/2014) the establishment of the EAC-Common Market. This is consistent with the Wilcoxon signed rank test in Section 5.2.5 which verifies that there is no statistically significant difference in ROA between these two periods (p=0.552>0.05) despite a wider variation (based on the standard deviation in Table 5.3) in ROA among companies in 2013/2014. The degree of volatility in ROA increased by more than 50% in 2008/2009, as compared to 2013/2014 (Table 5.3). Comparatively, ROA was less volatile before the operationalisation of the EAC Common market in 2010.

5.3.2　Return on equity (ROE)

This study calculated ROE as a percentage of year-end profits after interest and tax, divided by the company's total shareholder equity. Analysis of 2008/2009 descriptive statistics on ROE in Table 5.3 indicated a mean of 40.79%, median of 41.74%, standard deviation of 10.01, minimum of 19.34%, and the maximum of 63.40%. The ROE mean and median values for both 2008/2009 and 2013/2014 indicate that the EAC-listed companies in this study generated a similar average positive return of about 40% for their shareholders before (2008/2009) and after (2013/2014) the establishment of the EAC-Common Market. This is consistent with the Wilcoxon signed rank test in Section 5.2.5 which confirms that there is no statistically significant difference in ROE between these two periods (p=0.746 >0.05).

5.3.3　Tobin's q ratio (LnTBQ)

The LnTBQ is calculated as a company's market capitalisation at the year-end, divided by its total assets. The LnTBQ descriptive statistics results in Table 5.3 show that for 2008/2009, LnTBQ had a mean of -0.86 (0.4251), median of -0.94 (0.390[1]), standard deviation 0.65 (1.913[1]), minimum of -1.80 (0.165[1]), and maximum of 0.71 (2.038[1]). For 2013/2014, the LnTBQ descriptive statistic results included a mean of -0.76 (0.466[1]), median of -0.82

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[1] Values transformed from natural log to original values

(0.441[1]), standard deviation of 1.13 (3.107[1]), minimum of -2.88 (0.056[1]) and maximum of 1.94 (6.936[1]). As confirmed by the Wilcoxon signed-rank test (Table 5.2), there is no statistically significant difference in LnTBQ between 2008/2009 and 2013/2014 (p=0.856 >0.05). The LnTBQ ratio is below 1, which means that the company's market value is lower than its value of total assets, suggesting that the company market value is undervalued (Chorafas, 2004). The descriptive statistics for LnTBQ also show that it experiences higher volatility in 2013/2014, after the establishment of the EAC-Common Market. The degree of volatility in LnTBQ increased by 62% in 2013/2014 as compared to 2008/2009 (Table 5.3).

5.3.4   Price earnings ratio (LnPER)

The LnPER ratio in Table 5.3, above, was calculated as the year-end market price per share, divided by earnings per share (EPS), where market price per share is the year-end share price i.e. the price at which shares were bought or sold, based on the forces of demand and supply. The descriptive statistics results for 2008/2009 indicate an LnPER mean of 2.284 (9.743[1]), median of 2.277 (9.812[1]), standard deviation of 0.63 (1.884[1]), minimum of 1.00 (2.719[1]), and maximum of 3.62 (37.341[1]). On the other hand, in 2013/2014, the descriptive statistic results for LnPER showed a mean of 2.40 (11.056[1]), median of 2.43 (11.364[1]), standard deviation of 0.72 (2.058[1]), minimum of 0.57 (1.766[1]), and maximum of 3.96 (52.375[1]). There were no significant differences between the mean and median in PER for 2008/2009 and 2013/2014, as indicated by the Wilcoxon signed-rank test (Table 5.2) (p=0.302 >0.05). Nonetheless, the PER's positive means and medians for both 2008/2009 and 2013/2014 are an indication that the EAC-listed companies continued to create value for their shareholders after the operationalisation of the EAC–Common Market in 2010.

5.3.5   Gender diversity of the board

This study used the percentage of female directors to total directors as a measure of gender diversity on the board. According to the 2008/2009 descriptive statistics (Table 5.3), gender diversity had a mean of 10.6%, median of 10.0%, standard deviation of 10.1, minimum of 0% and maximum of 30%. In 2013/2014, the mean gender diversity of the board was 15.7%, with a median of 15.4%, standard deviation of 13.9, minimum of 0% and maximum of 50%. Table 5.3 also indicates that between 2008/2009 and 2013/2014, the mean and median gender diversity grew by 48% and 54% respectively, while the maximum gender diversity increased from 30% to 50%. This shows that there were more female directors on the board following

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[1] Values transformed from natural log to original values

the operationalisation of the EAC–Common Market in 2010 than before. Although the descriptive statistics show that the percentage of female directors on the board has increased, the difference between 2008/2009 and 2013/2014 was not found to be statistically significant, according to the Wilcoxon signed-rank test (p=0.110>0.05 in Table 5.2).

5.3.6   Board independence

The board independence variable in this study was represented by the ratio between non-executive directors and executive directors. A higher proportion of non-executive directors to executive directors is deemed to increase board independence and hence improve the company financial performance (Daily & Dalton 1992; Schellenger, Wood & Tashakori 1989). Board independence was thus calculated as the percentage of outside directors to the total number of the board directors at the financial year end (Moldasheva 2015). During 2008/2009, board independence had a mean value of 76.87%, median of 81.82%, standard deviation of 14.55, and minimum of 33.33% and maximum of 91.67%. Four years after operationalisation of the EAC–Common Market, the mean board independence was 76.11%, the median was 80.91%, the standard deviation was 15.55, the minimum board independence remained at 33.33% and the maximum was 93.33% (Table 5.3). The results of the Wilcoxon signed-rank test (Table 5.2) indicated no statistically significant differences in board independence between 2008/2009 and 2013/2014 (p=0.980 >0.05). Analysis of the results in Table 5.3, above, also indicate that the majority of companies in the EAC had more external than internal directors on their boards. The reason for the minimum board independence of 33.33% in the study data is that the corporate governance codes in all the EAC countries recommend that at least one-third of directors should be non-executive directors (CMA, K 2002; CMA, U 2003; USE 2014). Hence, the 33.33% minimum percentage for board independence in 2008/2009 and 2013/2014 (Table 5.3) demonstrate that all companies maintained the degree of board independence recommended by the EAC's code of governance and good practice.

5.3.7   Enterprise Risk Management

In this study, the existence of a chief risk officer and an audit and risk management committee of the board represented a company adoption of enterprise risk management (Aebi, Sabato & Schmid 2012; Liebenberg & Hoyt 2003). A dummy variable zero represents the presence of a chief risk officer only, while one represents the existence of a chief risk officer and an audit and risk management committee of the board. All companies used in this study had an audit and risk management committee. However, very few companies in the

EAC had a chief risk officer or any designated senior manager responsible for risk management as part of their risk management policy. The descriptive statistics (Table 5.3) indicated a decline in the mean enterprise risk management from 18.90% to 11.90 % following the operationalisation of the EAC–Common Market in 2010. The standard deviation also decreased by 0.07 from 0.40 to 0.33 between 2008/2009 and 2013/2014. However, the Wilcoxon signed-rank test results (Table 5.2) show that the difference in this risk management variable between 2008/2009 and 2013/2014 was not statistically significant (p = 0.3890 >0.05).

5.3.8   Board size

Board size is measured in this study as the total number of directors on the board of a company. The descriptive statistics (Table 5.3) demonstrate that in 2008/2009, the mean and median board size was 8.62 and 9.0 respectively, the standard deviation was 2.42, the minimum was 4.0 and the maximum was 13.0. In 2013/2014, the mean board size was 9.26, the median was 9.00, the standard deviation was 2.78, the minimum was 5.0 and the maximum was 15.0. Overall, after the operationalisation of the EAC–Common market, the mean, minimum and maximum board sizes increased by 7%, 25% and 15% respectively. Available data also indicates that the listed companies in the EAC had an average board size of 9 directors, which is consistent with the optimal board size recommended by Lipton and Lorsch (1992). Again, the outcomes of the Wilcoxon signed-rank test (Table 5.2) indicated no statistically significant differences in board size between 2008/2009 and 2013/2014 (p=0.355>0.05).

5.3.9   Natural logarithm of total assets

As the control variable, this study used company size, represented by total assets and market capitalisation. The natural log of the company's total assets measures total assets at the year-end. The value of total assets was transformed into a natural logarithm to achieve normality distribution to be used in the study's linear regression analysis (Anderson & Reeb 2003; Barontini & Caprio 2006; Wang 2006). The descriptive statistics (Table 5.3) for 2008/2009 show a mean natural logarithm of total assets of 12.13 (US$ 185, 944[1]), median of 12.33 (US$ 226, 493[1]), and standard deviation of 1.71 (5.5[1]). The minimum natural logarithm of total assets was 8.629 (US$ 5, 591[1]) with a maximum of 15.04 (US$ 3, 387, 087[1]). In 2013/2014, the mean natural logarithm of total assets was 12.12 (US$ 182, 817[1]), the median

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[1] Values transformed from natural log to original values

was 12.23 (US$ 205, 616[1]), the standard deviation was1.85 (6), the minimum was8.57 (US$ 5, 281[1]) and the maximum was 15.04 (US$ 4, 877,777[1]). Table 5.3 shows a reduction in mean, median and minimum values of the natural logarithm of total assets by 0.1%, 0.8% and 0.7% respectively. There was also a 2.4% increase in the maximum value of the natural logarithm of total assets after the operationalisation of the EAC Common Market. According to the Wilcoxon signed-rank test (table 5.2), there was no statistically significant difference in the natural logarithm of total assets between 2008/2009 and 2013/2014 (p=0.976>0.05).

5.3.10 Natural logarithm of market capitalisation

Market capitalisation was calculated as the company's total number of outstanding shares, multiplied by the market price per share (Yermack 1996). This variable was also transformed into a natural logarithm to comply with the linear regression model normality distribution assumptions. The descriptive statistics results in Table 5.3 demonstrate the following statistics for 2008/2009: a mean natural logarithm of market capitalisation of 3.94 (US$ 51, 200[1]), a median of 4.22 (US$ 68, 000[1]), a standard deviation of 1.54, a minimum of 0.94 (US$ 3, 000[1]) and a maximum of 6.62 (US$ 747, 000[1]). Similarly, in 2014, the mean market capitalisation was 4.45 (US$ 85, 500[1]) and the median was 4.22 (US$ 85, 700[1]), while the standard deviation, minimum, and maximum values were 1.68, 0.89 (US$ 2, 400[1]), and 7.81 (US$ 2,474.100[1]) respectively. Overall, between 2008/2009 and 2013/2014, the mean increased by 13%, the median by 5.5% and the maximum values of the natural logarithm of market capitalisation was 18.1%. However, the minimum value of the natural logarithm of market capitalisation fell by 5.6% after the operationalisation of the EAC Common Market in 2010. Nevertheless, the Wilcoxon signed-rank test (Table 5.2), indicates no statistically significant difference in natural logarithm of market capitalisation between 2008/2009 and 2013/2014 (p=0.212 >0.05).

5.4   Spearman's correlations

Table 5.4, below, shows the results of Spearman's correlation analysis for the variables used in this study. Spearman's rank correlation analysis was used in this study to examine the relationship between the corporate governance variables (gender diversity of the board, board independence, enterprise risk management, and board size) control variables (LnTA and LnMC) and company financial performance variables (ROE, ROA, LnTBQ and LnPER)

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[1] Values transformed from natural log to original values

Table 5:4 Spearmen's rank correlation analysis

Where: *** Significant at 1% level, **Significant at 5% level, * Significant at 10% level. GB = Gender diversity of the board, BI =Board independence, RM

		Correlation Coefficient									
		LnPER	LnTBQ	ROA	ROE	BS	GB	BI	RM	LnTA	LnMC
2008/2009	LnPER	1									
	LnTBQ	0.571*	1								
	ROA	-0.325**	0.156	1							
	ROE	-0.393**	0.065	0.662** *	1						
	BS	-0.354**	0.050	0.123	0.245	1					
	GB	-0.195	-0.035	-0.162	0.159	0.481***	1				
	BI	0.094	-0.038	0.010	-0.338*	0.142	0.027	1			
	RM	-0.006	-0.078	-0.162	0.162	0.303*	0.299*	-0.023	1		
	LnTA	-0.237	-0.119	-0.193	0.204	0.664***	0.526***	-0.116	0.588***	1	
	LnMC	-0.046	0.074	-0.003	0.230	0.576***	0.408**	-0.033	0.439***	0.818***	1.
2013/2014	LnPER	1									
	LnTBQ	0.409***	1								
	ROA	-0.239	0.603***	1							
	ROE	-0.121	0.430***	0.687***	1						
	BS	-0.143	-0.186	0.018	0.260*	1					
	GB	-0.288*	-0.244	-0.087	-0.033	0.450***	1				
	BI	-0.060	0.018	0.204	0.180	0.340**	0.055	1			
	RM	-0.197	-0.282*	-0.167	0.197	0.330**	0.357**	-0.301*	1.		
	LnTA	-0.526***	-0.436** *	0.017	0.352**	0.598***	0.322**	-0.048	0.482***	1	
	LnMC	-0.284*	0.078	0.427***	0.637***	0.539***	0.124	-0.004	0.306**	0.764***	1

= Enterprise Risk Management, BS = Board size, LnTA =Natural log of total assets and LnMC =Natural log of market capitalisation

The results in Table 5.4 indicate the level of correlation and its significance correlation. According to the results of the Spearman's rank correlation for 2008/2009, the following pair of variables exhibited significant correlation at 1% significance: ROA and ROE with correlation coefficient of 0.66, LnPER and LnTBQ with correlation coefficient of 0.57, gender diversity of the board and natural log of total assets with correlation coefficient of 0.53, enterprise risk management and natural log of total assets with correlation coefficient of 0.44, enterprise risk management and natural log of total assets with correlation coefficient of 0.59, board size and natural log of total assets with correlation coefficient of 0.66, board size and natural log of total assets with correlation coefficient of 0.58 and board size and gender diversity of the board with correlation coefficient of 0.48. The pairs of variables that displayed significant correlation at 5% significance were: LnPER and ROA with correlation coefficient of -0.33, LnPER and ROE with correlation coefficient of -0.39, LnPER and board size with correlation coefficient of -0.35, ROE and board independence with correlation coefficient of -0.34, gender diversity of the board and natural log of total assets with correlation coefficient of 0.41, and natural log of total assets and natural log of market capitalisation with correlation coefficient of 0 82. Finally, board size and enterprise risk management, with correlation coefficient of 0.30, and gender diversity of the board and enterprise risk management, with correlation coefficient of 0.30, were significantly correlated at 10% significance.

The Spearman's rank correlation for 2013/2014 in Table 5.4 shows that the following pair of variables exhibited significant correlation at 1% significance: LnPER and LnTBQ with correlation coefficient of 0.41, LnPER and gender diversity of the board with correlation coefficient of -0.29, LnPER and natural log of total assets with correlation coefficient of -0.53, LnPER and natural log of total assets with correlation coefficient of -0.28, LnTBQ and ROA with correlation coefficient of 0.60, LnTBQ and ROE with correlation coefficient of -0.43, LnTBQ and enterprise risk management with correlation coefficient of -0.28, LnTBQ and natural log of total assets with correlation coefficient of -0.44, ROA and ROE with correlation coefficient of 0.69, ROA and natural log of market capitalisation with correlation coefficient of 0.43, ROE and board size with correlation coefficient of 0.26, ROE and natural log of total assets with correlation coefficient of 0.35, ROE and natural log of market capitalisation with correlation coefficient of 0.64, board size and gender diversity of the board with correlation coefficient of 0.45, board size and board independence with

correlation coefficient of 0.34, board size and enterprise risk management with correlation coefficient of 0.33, board size and natural log of total assets with correlation coefficient of 0.60, board size and natural log of market capitalisation with correlation coefficient of 0.54, gender diversity of the board and enterprise risk management with correlation coefficient of 0.34, gender diversity of the board and natural log of total assets with correlation coefficient of 0.32, board independence and enterprise risk management with correlation coefficient of -0.30, enterprise risk management and natural log of total assets with correlation coefficient of 0.48, enterprise risk management and natural log of market capitalisation with correlation coefficient of 0.31, and natural log of total assets and natural log of market capitalisation with correlation coefficient of 0.76. The above correlation figures indicate lower correlations between the dependent and independent variables and some lack of significant correlations between some variables. However, as indicated by the diagnostic test results for multicollinearity in Table 5.1, there was no multicollinearity problem as indicated by the Variance Inflation Factor (VIF) of less than 10 maximum (Field 2009; Montgomery, Peck & Vining 2015; O'Brien 2007).

5.5   Linear regression results

This subsection provides the outcome of multiple regressions analysis. According to Bowerman et al. (2003) the independent variable's estimated coefficients indicate the size of effect that one variable has over the dependent variable. The sign on the coefficient (positive or negative) gives the direction of the effect. A positive coefficient indicates how much the dependent variable is expected to increase when the independent variable increases by one unit, holding other independent variables constant and the reverse is true for the negative coefficient (Tabachnick & Fidell 2006; Tabachnick, Fidell & Osterlind 2001). The R-squared is the fraction of the variation in the dependent variable that is accounted for (or predicted) by an independent variable. The P value for each independent variable tests the null hypothesis that the coefficient is equal to zero. If the null hypothesis is not rejected, the respective independent variable has no effect on the dependent variable (Field 2009). This study used the following four multiple regression model equations to investigate the relationship between corporate governance indicators (gender diversity of the board, board independence, enterprise risk management, and board size) and company financial performance (ROA, ROE, LnTBQ and LnPER) as presented in Sub-section 4.6.6:

a) $ROA_t = \beta_o + \beta_1 GB + \beta_2 BI + \beta_3 RM + \beta_4 BS + \beta_6 LnTA + \beta_7 LnMC + \mathcal{E}_t$ 4.3

b) $ROE_t = \beta_o + \beta_1 GB + \beta_2 BI + \beta_3 RM + \beta_4 BS + \beta_6 LnTA + \beta_7 LnMC + \mathcal{E}_t$ 4.4

c) $\text{LnTBQt} = \beta o + \beta 1 \text{GB} + \beta 2 \text{BI} + \beta 3 \text{RM} + \beta 4 \text{BS} + \beta 6 \text{LnTA} + \beta 7 \text{LnMC} + \mathcal{E}t$ 4.5

d) $\text{LnPERt} = \beta o + \beta 1 \text{GB} + \beta 2 \text{BI} + \beta 3 \text{RM} + \beta 4 \text{BS} + \beta 6 \text{LnTA} + \beta 7 \text{LnMC} + \mathcal{E}t$ 4.6

As mentioned in Section 5.2.3, this study used the SPSS macro on HCSE (Heteroscedasticity-Consistent Standard Error) estimators for linear regression developed by Hayes and Cai (2007). The results of the heteroscedasticity-consistent regression analysis as presented below:

5.5.1 The influence of corporate governance indicators on the ROA

According to Lesakova (2007), ROA evaluates the management's ability to use company assets to generate a return for investors. The ROA thus measures the efficiency of the company management in generating profits from company assets. Table 5.5, below, presents a summary of the regression results on the relationship between ROA, as the dependent variable, and corporate governance indicators and control variables in 2008/2009 and 2013/2014.

Table 5:5: Regression analysis of corporate governance indicators, control variables and ROA

Dependent variable: ROA	2008/2009			2013/2014		
	Model fit: $R^2 = 0.2960$ P = 0.1601 F = 1.6809			Model fit: $R^2 = 0.5426$ P = 0.0003 F = 5.8543		
Independent Variables	Coeff	T	P	Coeff	T	P
Constant	60.843	6.091	0.000	52.834	3.713	0.001
Gender diversity	-0.086	-1.392	0.174	0.025	0.206	0.838
Board independence	-0.072	-1.693	0.101	0.032	0.309	0.759
Risk management	-0.848	-.470	0.642	-2.574	-0.504	0.618
Board size	0.855	1.771	0.087*	-0.409	-0.613	0.544
Ln Total assets	-2.291	-2.294	0.029**	-3.284	-2.718	0.101
Ln Market capitalisation	1.723	1.737	0.093*	6.360	4.954	0.000***
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level GB = Gender diversity of the board, BI =Board independence, RM = Enterprise Risk Management, BS = Board size, LnTA =Natural log of total assets and LnMC =Natural log of market capitalisation						

The 2008/2009 results show an adjusted R-squared value of 0.30, which indicates that about 30% of the total variability in ROA is explained by gender diversity of the board, board independence, enterprise risk management, board size, natural log of total assets and natural

log of market capitalisation. Board size had a statistically significant positive influence on ROA (p=0.09<0.10), hence an increase in board size by one member would result in an increase in the ROA by 86%, holding all independent and control variables constant. The F test result indicates that all variables in aggregate are not statistically significant in influencing ROA (F = 1.68, p = 0.16>0.10).

On the other hand, the 2013/2014 results (Table 5.5), show an adjusted R-squared value of 0.54, which indicates a better model fit than in 2008/2009. This means that, about 54% of the total variability in ROA is explained by gender diversity of the board, board independence, enterprise risk management, board size, natural log of total assets and natural log of market capitalisation. The F test result for the regression model in 2013/2014 indicates that all variables in aggregate have a statistically significant influence on ROA (F= 5.85, p = 0.00<0.01). This suggests that the corporate governance indicators, together with the control variables, are more relevant to ROA in 2013/2014 than in 2008/2009. Furthermore, Table 5.3 shows an average board size of 8.6 directors in 2008/2009 and 9.2 directors in 2013/2014. Although the Wilcoxon signed-rank test's results (Table 5.2) suggested no significant differences in average board size between these two periods, the OLS regression results (Table 5.5) show that the independent variable has a statistically significant positive influence on ROA in 2008/2009 but no statistically significant influence in 2013/2014. The estimated coefficient for board size in 2008/2009 suggests that an additional director on the board contributes 86% to ROA, holding other variables constant. On the contrary, the contribution from an additional director on the board in 2013/2014 diminishes ROA by 41%, although this impact was not statistically significant.

5.5.2   The influence of corporate governance on the ROE

The ROE represents the net amount of profits created by the company using shareholders' funds. It is calculated as the percentage of the profits after interest and tax, to total shareholder's equity (Khatab et al., 2011). Table 5.6, below, presents a summary of the regression results on the relationship between ROE, as the dependent variable, and corporate governance indicators and control variables in 2008/2009 and 2013/2014.

Table 5:6. Regression analysis of corporate governance indicators, control variables and ROE

Dependent variable: ROE	2008/2009			2013/2014		
	Model fit: R^2 = 0.2121 P = 0.0997 F = 1.9820			Model fit: R^2 = 0.5168 P = 0.0001 F = 6.3576		
Independent Variables	Coeff	T	P	Coeff	T	P
Constant	62.223	2.924	0.007	26.876	1.411	0.167
Gender diversity	0.045	0.248	0.806	-0.048	-0.292	0.772
Board independence	-0.245	-2.069	0.047**	0.105	0.712	0.481
Risk management	0.424	0.102	0.919	2.336	0.402	0.690
Board size	1.467	1.598	0.120	-0.578	-0.709	0.483
Ln Total assets	-1.931	-0.929	0.360	-1.530	-0.986	0.331
Ln Market capitalisation	1.947	1.082	0.288	6.471	4.239	0.000***
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level GB = Gender diversity of the board, BI =Board independence, RM = Enterprise Risk Management, BS = Board size, LnTA =Natural log of total assets and LnMC =Natural log of market capitalisation.						

As shown in Table 5.6, above, in 2008/2009, the OLS regression results showed an adjusted R-squared value of 0.21, which suggests that about 21% of the total variability in ROE is explained by gender diversity of the board, board independence, enterprise risk management, board size and natural log of market capitalisation. The F test result indicated that all variables jointly influence ROE (F = 1.98, p = 0.09<0.10). Board independence had a statistically significant negative influence on ROE (p=0.05<0.10), hence, an increase in board independence by one percent would result in a decrease in the ROE of 25%, holding other independent and control variables constant.

On the other hand, the results for 2013/2014 (Table 5.6) presented an adjusted R-squared value of 0.52, which shows a better model fit than 2008/2009. The adjusted R-squared results indicates that during 2013/2014, about 52% of the total variability in ROE could be attributed to gender diversity of the board, board independence, enterprise risk management, board size, natural log of total assets, and natural log of market capitalisation. The F test result also indicated that all variables jointly influenced ROE (F= 6.34, p = 0.00<0.01). Although the natural log of market capitalisation (a control variable) is the only variable that had a statistically significant positive influence on ROE (p=0.00<0.01) in 2013/2014, the adjusted

R-squared suggests that the corporate governance indicators, together with the control variables, have more relevance in explaining ROE in 2013/2014 than in 2008/2009.

5.5.3   The influence of corporate governance on the LnTBQ

The LnTBQ is calculated as the ratio of company market value to the total book value (Bhagat, Sanjai & Jefferis 2005). Table 5.7, below, presents a summary of the regression results on the relationship between LnTBQ, as the dependent variable, and corporate governance indicators and control variables in 2008/2009 and 2013/2014.

Table 5:7: Regression analysis of corporate governance indicators, control variables and LnTBQ

Dependent variable: LnTBQ	2008/2009			2013/2014		
	Model fit: $R^2 = 0.2088$ $P = 0.2719$ $F = 1.3368$			Model fit; $R^2 = 0.7368$ $P = 0.0000$ $F = 8.6757$		
Independent Variables	Coeff	T	P	Coeff	T	P
Constant	2.129	1.347	0.188	5.751	4.840	0.000
Gender diversity	-0.004	-0.259	0.798	0.002	0.181	0.858
Board independence	-0.011	-1.331	0.193	-0.001	-0.169	0.867
Risk management	0.005	0.013	0.990	0.126	0.216	0.830
Board size	0.098	1.218	0.233	0.007	0.126	0.901
Ln Total assets	-0.332	-2.294	0.029**	-0.842	-6.749	0.000***
Ln Market capitalisation	0.268	1.526	0.138	0.827	6.801	0.000***
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level GB = Gender diversity of the board, BI =Board independence, RM = Enterprise Risk Management, BS = Board size, LnTA =Natural log of total assets and LnMC =Natural log of market capitalisation.						

According to the OLS regression results in Table 5.7, the adjusted R-squared value in 2008/2009 was 0.21, which suggests that about 21% of the total variability in LnTBQ can be explained by gender diversity of the board, board independence, enterprise risk management, board size, natural log of total assets and natural log of market capitalisation. The F test result indicated that all variables in aggregate do not have a statistically significant influence on LnTBQ in 2008/2009 (F = 1.34, p = 0.27>0.10).

The 2013/2014 results (Table 5.7), shows an adjusted R-squared value of 0.74, which demonstrates a better model fit, than 2008/2009. In other words, in 2013/2014 about 74% of

the total variability in LnTBQ can be explained by gender diversity of the board, board independence, enterprise risk management, board size, natural log of total assets, and natural log of market capitalisation. The F test result also indicated that all variables in aggregate have a statistically significant influence on LnTBQ (F= 8.68, p = 0.00<0.01). This improvement in the model fit and model significance suggests that corporate governance indicators, together with the control variables, have more relevance in explaining LnTBQ in 2013/2014 than in 2008/2009.

5.5.4   The influence of corporate governance on the LnPER

Table 5.8, below, presents a summary of the regression results on the relationship between LnPER, as the dependent variable, and corporate governance indicators and control variables in 2008/2009 and 2013/2014.

Table 5:8: Regression analysis of corporate governance indicators, control variables and LnPER

Dependent variable: LnPER	2009			2014		
	Model fit: $R^2 = 0.1834$ P = 0.2402 F = 1.4186			Model fit; $R^2 = 0.4099$ P = 0.0038 F = 3.9907		
Independent Variables	**Coeff**	**T**	**P**	**Coeff**	**T**	**P**
Constant	3.921	3.312	0.002	52.824	3.713	0.000
Gender diversity	0.003	0.220	0.828	0.025	0.206	0.152
Board independence	0.004	0.473	0.640	0.032	0.309	0.236
Risk management	0.269	0.888	0.382	-2.574	-0.504	0.291
Board size	-0.096	-1.258	0.218	-0.409	-0.613	0.032**
Ln Total assets	-0.161	-1.437	0.161	-0.284	-2.718	0.002***
Ln Market capitalisation	0.199	1.711	0.097*	6.360	4.954	0.500
*** Significant at 1% level, **Significant at 5% level, * Significant at 10% level GB = Gender diversity of the board, BI =Board independence, RM = Enterprise Risk Management, BS = Board size, LnTA =Natural log of total assets and LnMC =Natural log of market capitalisation.						

The 2008/2009 results (Table 5.8) show an adjusted R-squared value of 0.18, which means that during 2008/2009, about 18% of the total variability in LnPER is explained by gender diversity of the board, board independence, enterprise risk management, board size, natural log of total assets and natural log of market capitalisation. The F test result indicates that all

variables in aggregate do not have a statistically significant influence on LnPER (F= 1.42, p = 0.24>0.10).

According to the 2013/2014 results (Table 5.8), the adjusted R-squared value was 0.41, which indicates a better model fit than 2008/2009. This shows that about 41% of the total variability in LnPER in 2013/2014 can be explained by gender diversity of the board, board independence, enterprise risk management, and board size, natural log of total assets and natural log of market capitalisation. The F test results also indicates that all variables in aggregate have a statistically significant influence on LnPER (F= 3.99, p = 0.00). Board size had a statistically significant negative influence on LnPER (p=0.03<0.05) suggesting that an increase in board size by one member would result in a decrease in LnPER by 40.9%, holding all independent and control variables constant. The composite of PER (price per share and earning per share) offers two possible explanations for this negative relationship between LnPER and board size; either earning per share increases as board size increases, or price per share deceases as board size increases. The negative, though not statistically significant, relationship between ROA and board size in 2013/2014 (in Table 5.5 under Section 5.5.1) indicates that the former (negative relationship between price per share and board size) offers an appropriate explanation for the negative relationship between board size and LnPER. This implies that the EAC markets in 2013/2014 tended to react positively to smaller board size and negatively to larger board size. In inverting the logarithm transformation of the dependent variable from LnPER to PER, the impact of this market reaction could be translated as evidence that the addition of one director would bring about approximately 33.5% decrease in the PER and vice versa.

5.5.5   Control variables

As mentioned in Section 3.4, total assets and market capitalisation are used as control variables in the regression models, in order to statistically adjust their effects on company financial performance and thereby estimate the effects of corporate governance indicators on this outcome variable. This study observed some significant relationships between the control variables and the EAC listed companies' financial performance indicators. For example, in 2008/2009 (Table 5.5), the natural log of total assets had a statistically significant negative influence on ROA (p=0.03<0.05) while the natural log of market capitalisation had a statistically significant positive influence on ROA (p=0.09<0.10). However, in 2013/2014 (Table 5.5), only the natural log of market capitalisation had a statistically significant positive

influence on ROA (p=0.00<0.01). Furthermore, no control variable significantly influenced ROE in 2008/2009. However, in 2013/2014 (Table 5.6), the natural log of market capitalisation had a statistically significant positive influence on ROE (p=0.00<0.01)

In 2008/2009 (Table 5.7), the natural log of total assets had a statistically significant negative influence on LnTBQ (p=0.03<0.05). However, in 2013/2014 (Table 5.7), the natural log of market capitalisation had a statistically significant positive influence on LnTBQ (p=0.00<0.01) while the natural log of total assets had a statistically significant negative influence on LnTBQ (p=0.00<0.01). Furthermore, according to the results in Table 5.8, the natural log of market capitalisation had a statistically significant positive influence on LnPER (p=0.09<0.10). The natural log of total assets also had a statistically significant negative influence on LnPER (p=0.00<0.01).

5.5.6   Summary of the hypothesis test results.

Table 5.9, below, presents the summary of the hypothesis tests results for the five hypotheses used in this study, as outlined in Section 3.3. Table 5.9 indicates that there were inconclusive results about the relationships between board independence and return on assets, board size and return on assets, and board size and natural logarithm of price earnings ratio. However, no hypotheses on the relationships between corporate governance indicators and company financial performance (ROA, ROE, LnTBQ and LnPER) were supported.

Table 5:9 Summary results from hypothesis testing

Study hypothesises	Tests results		H5 There has been a significant change in corporate governance indicators following the operationalisation of the EAC- Common Market
	2008/2009	2013/2014	
H1: There is a significant relationship between board independence and company financial performance			
GB and ROA	Not supported	Not supported	Not supported
GB and ROE	Not supported	Not supported	Not supported
GB and LnTBQ	Not supported	Not supported	Not supported
GB and LnPER	Not supported	Not supported	Not supported
H2: There is a significant relationship between board independence and company financial performance			
BI and ROA	Not supported	Not supported	Not supported
BI and ROE	Supported	Not supported	Inconclusive
BI and LnTBQ	Not supported	Not supported	Not supported
BI and LnPER	Not supported	Not supported	Not supported
H3: There is a significant relationship between company commitment to enterprise risk management and its financial performance.			
RM and ROA	Not supported	Not supported	Not supported
RM and ROE	Not supported	Not supported	Not supported
RM and LnTBQ	Not supported	Not supported	Not supported

Study hypothesises	Tests results		H5 There has been a significant change in corporate governance indicators following the operationalisation of the EAC- Common Market
	2008/2009	2013/2014	
RM and LnPER	Not supported	Not supported	Not supported
H4: There is a significant relationship between the board size and the company financial performance			
BS and ROA	Not supported	Supported	Inconclusive
BS and ROE	Not supported	Not supported	Not supported
BS and LnTBQ	Not supported	Not supported	Not supported
BS and LnPER	Not supported	Supported	Inconclusive
GB = Gender diversity of the Board, BI =Board Independence, RM = Enterprise Risk Management, and BS = Board Size.			

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5.6   Conclusion

This chapter presented the results of OLS diagnostic statistical tests, descriptive statistics, the Wilcoxon signed-rank test, Spearman's rank correlation and OLS regression analysis on a sample of EAC-listed companies for the periods before (2008/2009) and after (2013/2014) the operationalisation of the EAC- Common Market. The regression diagnostics verified that the data in this study met the assumptions underlying OLS regression before analysis and inference were undertaken. The descriptive statistics are reported to provide a profile of the listed companies in the sample in terms of the dependent variables, corporate governance variables and control variables. The Wilcoxon signed-rank test results show that there were no statistically significant differences in these variables before (2008/2009) and after (2013/2014) the operationalisation of the EAC-CM. Spearman's rank correlation was presented, highlighting significant relationships. Multiple regression results obtained from SPSS macro on HCSE (Heteroscedasticity-Consistent Standard Error) estimators developed by Hayes and Cai (2007) were reported for each of the proxies for company financial performance (return on assets, return on equity, Tobin's Q and price-earnings ratio). A summary of the results of hypothesis testing was also presented, which identified hypotheses either not supported or inconclusive in regard to the influence of corporate governance indicators on company financial performance, and to changes in corporate governance indicators before (2008/2009) and after (2013/2014) the operationalisation of the EAC-CM. Despite the results, the adjusted R-squared and significance of the regression models in 2013/2014 show a better model fit than 2008/2009, suggesting that the corporate governance indicators, together with the control variables, have more relevance in explaining company financial performance in 2013/2014 than in 2008/2009. Chapter 6 discusses the research findings and their implications.

Chapter 6   Discussion of the study findings and conclusion

6.1   Introduction

This study examined the influence of corporate governance on the financial performance of listed companies within the EAC between 2008/2009 and 2013/2014. From existing literature, the researcher developed five hypotheses that were tested using data from a sample of forty-two EAC listed companies. The sample of companies used in this study was drawn from three of the EAC's major stock markets, as follows: thirty companies from the Nairobi Security Exchange (Kenya), seven companies form the Dar es Salaam Stock Exchange (Tanzania) and five companies from the Uganda Securities Exchange (Uganda). None of the five Rwandan listed companies did qualify for inclusion in this study because they were listed on the EAC's stock markets after the financial year 2008/2009.The Rwandan stock exchange became operational after 2010, whilst Burundi had no active stock market.

The specific objectives addressed by this study are as follows:

a. to determine the relationship between corporate governance indicators (gender diversity of the board, board independence, enterprise risk management, and board size) and company financial performance;

b. to compare the corporate governance indicators before and after the operationalisation of the EAC- Common Market in 2010 and identify the impact of changes on EAC companies' financial performance; and

c. to make recommendations about corporate governance indicators for enhancing company financial performance.

Based on the statistical results presented in Chapter 5, this chapter presents a detailed discussion of these results and offers some possible reasons to explain the nature of the research outcomes. The chapter also points out the implications of the study from a practical perspective and highlights the importance of these research findings. This study adopted a comparative approach in examining the influence of corporate governance on company financial performance. The researcher carried out an assessment of the influence of the chosen corporate governance indicators (gender diversity of the board, board independence, enterprise risk management, and board size) on company financial performance before (2008/2009) and after (2013/2014) the establishment of the EAC common market. The rest of this chapter is structured as follows: Section 6.2 presents the findings of the study, using each of the four chosen corporate governance indicators (objective 1); Section 6.3 discusses the changes in the corporate governance indicators and their implications for company financial

performance (objective 2); Section 6.4 presents the study's recommendations (objective 3); Section 6.5 offers proposals for future studies, while Section 6.6 discusses the study's contribution to knowledge. Section 6.7 points out the limitations of the study and, finally, Section 6.8 presents the conclusion.

6.2 Findings of the study

As indicated in Chapter 5, the results of the OLS regression were used to explain the relationship between individual corporate governance indicators (gender diversity of the board, board independence, enterprise risk management, and board size) and the company financial performance variables (ROA, ROE, LnTBQ and LnPER). The findings of this study are structured according to the study's specific objectives mentioned in Section 1.3 above.

Five hypotheses were used in this study. Four were used to examine the influence of corporate governance on company financial performance, and the fifth was used to compare the changes in corporate governance before (2008/2009) and after (2013/2014), the establishment of the EAC common market. A summary of the results from this study's hypotheses is presented in Table 6.1:

Table 6:1 Summary of hypothesis testing of this study in comparison to prior research

Hypotheses	Overall result	Results of prior studies on Corporate Governance and firm performance
H_1: There is a significant relationship between gender diversity of the board (GB) and company financial performance	Not supported	**Supported** • Sample of Global companies (Lee et al. 2015) • Listed companies in Mauritius using ROA (Mahadeo, Soobaroyen & Hanuman 2012) • Listed companies in Norway TBQ (Ahern & Dittmar 2012) • Listed companies in the USA using ROA (He & Huang 2011) • Listed companies in Oslo-Norway using TBQ, ROA, ROS (Bohren & Strom 2010) • 638 Fortune 1000 USA firms using ROA and TBQ (Carter, David A, Simkins & Simpson 2003) **Not supported/ inconclusive** • 126 British companies using ROE, ROA TBQ (Haslam et al. 2010) • 326 US Fortune 500 firms using ROI, ROS (Miller, Toyah & del Carmen Triana 2009) • 100 Danish-listed companies using TBQ (Rose 2007) • 154 Danish, 144 Norwegian, 161 Swedish-listed firms using ROA (Randoy, Thomsen & Oxelheim 2006)
H_2: There is a significant relationship between board independence (BI) and company financial performance	Inconclusive	**Supported** • New Zealand-listed companies using ROA (Fauzi & Locke 2012) • Malaysian companies using TBQ (Ameer, Ramli & Zakaria 2010) • Africa-listed companies using TBQ and ROA (Kyereboah-Coleman 2008) • Malaysian-listed firms using ROA, PE and EPS share (Abdullah, SN 2004) **Not supported/ inconclusive** • Hong Kong nonfamily firms using TBQ (Leung, Richardson & Jaggi 2014). • Listed companies in India using ROA (Garg 2007) • Africa-listed companies using EPS and DPS (Kyereboah-Coleman 2007)

Hypotheses	Overall result	Results of prior studies on Corporate Governance and firm performance
		• USA 142 NYSE-listed companies using TBQ (Hermalin & Weisbach 1991)
H₃: There is a significant relationship between company commitment to enterprise risk management (RM) and its financial performance	Not supported	**Supported** • Banks in the Netherlands using ROA, and ROE (Aebi, Sabato & Schmid 2012) • Italian-listed companies using ROA (Florio & Leoni 2017) • Sample of US banks using ROA and TBQ (Baxter et al. 2013) • Global industry leading Risk and Insurance Management Society using TBQ (Farrell, M & Gallagher 2015).
H₄: There is a significant relationship between board size (BS) and company financial performance	Inconclusive	**Supported** • Commercial banks in Kenya using ROA and ROE (Morekwa Nyamongo & Temesgen 2013). • Listed companies in Africa using TBQ and ROA (Kyereboah-Coleman 2008) • Listed companies in Africa EPS and DPS (Kyereboah-Coleman 2007) • Listed companies in Australia using TBQ (Henry 2008; Kiel & Nicholson 2003; Nguyen, P. et al. 2016)
H₅ There has been a significant change in corporate governance indicators following the operationalisation of the EAC- Common Market	Inconclusive	No comparative study has been carried out to examine the changes in corporate governance indicators (gender diversity of the board, board independence, enterprise risk management and board size) following the operationalisation of the East African common market.

Table 6.1, above, shows the results of the hypotheses testing as discussed in Chapter 5. The influence of the elements of corporate governance on company financial performance was tested and the results revealed that hypotheses H_1 and H_3 were not supported while H_2, H_4 and H_5 were inconclusive.

6.2.1 Gender diversity of the board and company performance

As indicated in Table 6.1, an essential finding in this study was that there was no statistically significant relationship between gender diversity and company financial performance. The OLS results (Section 5.5) indicated that gender diversity of the board has no statistically significant influence on any of the company financial performance indicators (ROA, ROE, LnTBQ and LnPER). While gender diversity may improve the board's efficiency, it may not guarantee a company's superior performance. Hence, a company's financial performance may be driven not by gender diversity on the board but by other factors such as diverse sources of revenue and costs, with revenue depending upon the price and quantity of the goods or services sold (Kotler 2012). The findings that gender diversity does not influence company financial performance are consistent with a number of studies (Carter, David A, Simkins & Simpson 2003; Farrell & Hersch 2005; Rose 2007) which discovered no relationship between the presence of female directors on the board and company financial performance.

The results are also consistent with Haslam et al (2010) study, which revealed no relationship between the presence of female directors on the boards in UK and companies' financial performance, as measured by ROA and ROE. Additionally, Minguez-Vera and Lopez-Martinez (2010) found no significant relationship between the presence of female directors on the boards of Spanish small and medium enterprises (SME's) and company financial performance measured by ROA, while Ahern and Dittmar's (2012) study discovered that the gender diversity of the board did not statistically influence company financial performance in Norway. This lack of a significant relationship, according to Ahern and Dittmar (2012), was caused by the abrupt introduction and enforcement of the 40% mandatory gender quota system in Norway in 2006, which forced many companies to recruit female directors, regardless of their age or board experience.

The results of this study indicate that gender diversity within the EAC does not have a significant influence on company financial performance, and hence it could be concluded that

the EAC stock markets appear to attach little value to the gender diversity of boards. This is attributed to low levels of women participation in the workforce due to cultural practices such as the primordial African taboo in which women were not allowed to work and men were to provide for the entire family (Wachudi & Mboya 2012). This stereotype still limit women participation in the workforce in Africa in general and EAC in particular. According to Punnett and Clarke (2017), there is as low as 40% of women participation in the workforce in Kenya and Uganda and 20% in Africa with majority of women employed in informal employment. Lee et al. (2015) posit that while female leadership increases company performance, it has not been embraced in many countries, including the USA and the UK, where gender diversity of the board is still below the 30% recommended threshold. They suggest that gender diversity should be increased through the imposition of quotas and other regulatory measures. However, it is unclear whether such quotas would be acceptable within the EAC, due to cultural differences that tend to favour male directors over their female counterparts (Wachudi & Mboya 2012).

6.2.2   Board independence and company performance

The results of the influence of board independence on company financial performance were inconclusive. In 2008/2009, for example, the OLS regression and the Spearman's rank correlation results indicated a significant negative relationship between board independence and ROE, which is one of the four proxies for company financial performance in this study. However, the relationship between board independence and company financial performance in 2013/2014 was not statistically significant. According to Abdullah, H and Valentine (2009), a negative correlation between board independence and company financial performance exists in companies whose directors lack the requisite skills and knowledge to control and monitor the company, which results in poor company performance. Hence, the significant negative relationship exhibited in the 2008/2009 model for ROE appears to indicate that prior to the establishment of the EAC common market, most board's independent directors were insufficiently skilled to exercise effective advisory and monitoring functions. The ROE declines as the number of independent board of directors increases. However, after the establishment of the EAC common market, the skills of directors appears to have improved which may be attributed to the availability of a bigger pool of talents of directors from different integrated EAC countries. Although this significant negative relationship between board independence and ROE in 2013/2014 is not replicated across other dependent variables, this corporate governance variable appears to have a

positive impact (though not statistically significant) on ROA, ROE and LnPER, but a less negative impact (also not statistically significant) on LnTBQ in this period. This suggests that the establishment of the EAC common market provided a bigger pool of talents (from different EAC countries) from which the listed companies sought independent directors with the best skills in 2013/2014, as compared to 2008/2009. This improved access to a bigger pool of talents for independent board members appears to improve company financial performance. For example, the impact of board independence on ROA has changed from negative (-7.2%) in 2008/2009 to positive (3.2%) in 2013/2014, although the impact was not statistically significant in either period. Similar results for ROE occurred (-24.5% in 2008/2009 and 10.5% in 2013/2014) except that the negative relationship in 2008/2009 was significant. The impact of board independence on LnPER was stronger in 2013/2014 (3.2%) than in 2008/2009 (0.4%) while the negative influence of this corporate governance indicator on LnTBQ was weaker in 2013/2014 (-1.1%) than in 2008/2009 (-0.1%). However, these impacts of board independence on LnPER and LnTBQ were not statistically significant.

The study by Tosi and Gomezmejia (1994) also provided inconclusive results about the relationship between board independence and company financial performance. Their findings revealed that the presence of non-executives does not guarantee the best monitoring of company operations for the benefit of shareholders. They further submitted that the mere existence of a board of directors does not guarantee the monitoring of managerial activity, or even that it takes place in the interest of shareholders. They therefore concluded that company performance depends on board quality, but not necessarily board independence, because not all directors possess the necessary skills and knowledge, given their different backgrounds, industry expertise, occupations, managerial competences, and time commitment to the company. Some directors may provide higher quality service in fulfilling their monitoring and advisory roles than others do (Rhoades, Rechner & Sundaramurthy 2000).

While the results on the impact of board independence on company financial performance are inconclusive, this relationship should be further investigated in future research to determine whether the agency and resource dependency theories (which maintain that the independence of the board represent diverse skills and expertise for better company monitoring and hence

improved performance), apply to the EAC context (Acharya, Myers & Rajan 2011; Ambrosini 2007).

6.2.3   Enterprise risk management and company performance

The findings from OLS analysis (Section 5.5) also revealed no significant relationship between enterprise risk management, and company financial performance, as measured by ROA, ROE, LnTBQ and LnPER. These results contravene the findings of many corporate governance researchers such as Pagach and Warr (2011), Gordon, Loeb and Tseng (2009); Shleifer and Vishny (1997) whose findings revealed that enterprise risk management enhances shareholders' return on investment via reduced company risks. However, a few of the EAC-listed companies surveyed in this study had implemented enterprise risk management systems. Most did not have both a Chief risk officer an audit and risk management committee of the board, which is an indication of lack of commitment to enterprise risk management (Aebi et al,2012; Knechel 2002; Liebenberg & Hoyt 2003).

It can be argued that this limited commitment to enterprise risk management by the EAC's listed companies was due to the high costs associated with its implementation. According to Kerstin, Simone and Nicole (2014), implementation of enterprise risk management is very costly, because it requires recruitment of experienced risk management staff and continuous on-job training. Moreover, Kerstin, Simone and Nicole (2014) and Duckert (2010) acknowledge that the implementation of enterprise risk management is costly because it requires the development of a series of risk management policies and standards. Despite its benefits, such as the reduction of business risks, many companies in the EAC did not fully implement enterprise risk management. Only financial institutions like banks that deemed to afford the cost of risk management staff recruitment and training had both an audit and risk management committee of the board and a Chief risk officer. However, the majority of the EAC listed companies in this study relied on a more traditional risk management system, with the audit and risk management committee of the board responsible for company risk management. Most EAC listed companies in the study employed one method of risk management i.e. the transfer of risk through buying an insurance policy against individual company risks (fire, burglary or cash in transit). However, banks had both a Chief risk officer and an audit and risk management committee of the board and insured against their risks as part of their risk management and corporate governance practice.

6.2.4 Board size and company performance

The results of the influence of board size on company financial performance, from the regression models, (Tables 5.5 to 5.8) were inconclusive. The study was unable to generalise this relationship. There were significant relationships between board size and ROA, and between board size and LnPER in 2013/2014 but no significant relationship between board size and ROE and LnTBQ in 2008/2009 and 2013/2014. Although the Wilcoxon signed-rank test's results (Table 5.2) revealed no significant differences in board size between these two periods, the statistical results appear to suggest that the optimal board size is nine board members. Table 5.3 shows that the average board size was 8.6 directors in 2008/2009 and 9.2 directors in 2013/2014. The estimated coefficients in the series of regression models (Table 5.5 to 5.8) appear to indicate that company financial performance deteriorated in 2013/2014 when the average board size increased to 9.2 directors. The decline in company financial performance was as follows: board size impact on ROA was 85.5% in 2008/2009 and declined to -40.9%. In 2013/2014, although this impact was not statistically significant in the latter period; the impact on ROE was 14.67% in 2008/2009 and declined to -37.8% in 2013/2014; LnTBQ was 9.8% in 2008/2009 and declined to 0.7% in 2013/2014; and LnPER was -9.6% in 2008/2009 and further declined to -40.9% in 2013/2014. While the results on the impact of board size on company financial performance are inconclusive, this relationship should further be examined in future research as per the recommendation in section 6.5. There is no standard optimal board size; Lipton and Lorsch (1992) recommend an optimum board size of eight to nine directors while Jensen (1993) recommends seven to eight directors. The current study discovered that on average, the EAC listed companies had a board size of 9.2, which is above the optimal recommended board size (Jensen 1993; Kiel & Nicholson 2003; Lipton & Lorsch 1992).

According to Zahra and Pearce (1989), large board sizes help companies to improve their external linkages, thus pulling together different external resources to enhance the company's financial performance, most especially in the long run. A large board attracts extra skills and knowledge to an organisation and may make it difficult for top executives to manipulate the board agenda for their personal benefits at the expense of the shareholders' wealth maximisation (Zahra & Pearce 1989). Supporting this view, Mwanzia Mulili (2014), Belkhir (2009) and Adams, Renée B and Mehran (2005) found a statistically significant positive relationship between large board size and company financial performance, while Kyereboah-

Coleman, A and Biekpe (2005), discovered a positive linear relationship between company performance and large board size. In addition, Kiel and Nicholson (2003) found a positive relationship between large board size and company financial performance.

On the other hand, Yermack's (1996) study of 452 US companies, Eisenberg, T., Sundgren and Wells' (1998), study of 879 Finnish small and mid-size companies, Loderer and Peyer's (2002) study of 169 Switzerland companies and De Andres, Azofra and Lopez's (2005) study of 450 companies from ten OECD countries all found negative relationships between large board size and company financial performance. Furthermore, a negative relationship between board size and company performance was discovered by Lipton and Lorsch (1992) who suggest that unlike optimal boards, large boards suffer from poor coordination problems which may reduce their ability to execute their functions aimed at increasing company profitability. Again, a larger board is more likely to suffer from free rider problems, i.e. situations where some board members play a passive role in monitoring company operations, leading to poor company performance (Yermack 1996). However, the free rider problem is less prevalent in owner-managed companies that normally have a small number of directors (Eisenberg, T., Sundgren & Wells 1998; Loderer & Peyer 2002; Pathan, Skully & Wickramanayake 2007).

Finally, according to Conyon and Peck (1998) a large board is synonymous with extensive company bureaucracy, which may reduce directors' ability to reach quick consensus on some decisions, thereby impairing company financial performance. Jensen, M. C. (1993) argues that a large board is often less cohesive in decision making, and may be hard to control and manage, which increases the agency costs while reducing the board's contribution to company performance. Moreover, Nguyen et al's (2015) studied the effect of board size on company value in Australia and concluded that board size and company performances have a strong negative relationship.

6.3   Changes in corporate governance

This study did not find statistically significant changes in the corporate governance indicators before and after the operationalisation of the EAC- Common Market in 2010. The hypotheses addressing this objective (determining whether there is a significant difference for each corporate governance indicator between 2008/2009 and 2013/2014) were inconclusive. There

was improvement in the regression model fits (as measured by R-squared) in Tables 5.5 to 5.8 that suggest that the corporate governance indicators appeared to have more relevance in influencing or explaining company financial performance in 2013/2014 than they did in 2008/2009. Future research should continue this investigation into whether these corporate governance indicators have become more relevant to, and significant in, their impact on company financial performance over time, particularly to determine whether board independence and board size which showed an inconclusive influence on company financial performance.

6.4   The Study's recommendations

The third objective of this study was to make recommendations about the corporate governance indicators that might enhance company financial performance. Based on the literature review, and this research results, the following recommendations are made:

Firstly, while the results of this study indicated no significant relationship between the gender diversity of the board and company financial performance, extant literature suggests that gender diversity of the board does enhance company performance. For instance, according to Barako & Brown (2008, p. 321), the presence of female directors increases the board's independence and improves company "disclosure practices" and hence company financial performance, while Adams et al. (2011), contend that gender diversity on boards strengthens their monitoring function because female managers tend to have better monitoring skills. This is because female directors tend to have better knowledge, and stronger academic backgrounds than their male counterparts (Carter, D. A. et al. 2010; Hillman, Amy J, Cannella & Harris 2002). Moreover, female directors are more likely to have better marketing and sales skills than their male counterparts (Groysberg & Bell 2013) are. According to Loyd et al. (2013), female directors tend to engage in deeper discussions and share different knowledge and information, compared to homogeneous boards, so gender-diverse boards are more motivated to engage in deep and extensive discussions for the benefit of company financial performance. Adams, Renée B & Funk (2012), argue that female directors tend to place higher value on tolerance, benevolence, and interdependence, which may help elicit better information and views, and stimulate teamwork amongst fellow board members. Bart and McQueen (2013) believe that female directors are more likely to adopt a cooperative decision-making approach, which results in fairer decisions when competing interests are at stake, whereas Peterson and Philpot (2007) suggest that male directors are more likely to base their decisions on traditional ways of doing business, and on rules and

regulations. Hence, with a gender-balanced board, companies are likely to have a broader understanding of the industry and of their multiple stakeholders (Carter, David A, Simkins & Simpson 2003).

In conclusion, based on the above literature, gender diversity is seen to be a very important potential contributor to the future financial performance of EAC listed companies, because many countries are now striving to have gender equality. Consequently, many consumers in developing countries attach value to companies that have observed gender equality, which improves their share price. Therefore, based on the above literature, this study recommends an increase in gender diversity of boards in the EAC from the current mean of 10-15% to about 40%, as proposed by the Norwegian legal and corporate governance system. This will help EAC listed companies to benefit from the female director attributes discussed above, by increasing board independence, directors' broad knowledge, skills and understanding of the industry and of the companies' multiple stakeholders, thereby improving company value.

Secondly, the results of this study on the influence of board independence were inconclusive (Table 6.1). However, the estimated coefficients (Table 5.5 to 5.8) suggest that greater board independence may improve company financial performance. This warrants further investigation, involving a longer time lapse between the comparison periods to allow companies to adequately transit to the EAC-CM framework. Nevertheless, extant literature suggests that the presence of a high proportion of non-executive directors provides better monitoring of the company to mitigate principal–agent conflicts (Jensen, Michael C & Meckling 1976). Agency theory holds that the bigger the number of outside directors, the better their monitoring function and thus the higher the company performance and value (Meyer & de Wet 2013). According to Baysinger and Butler (1985), a high degree of board independence results in shareholder wealth maximisation. Similarly, Masulis and Mobbs (2011) argue that the presence of both inside and outside directorships leads to higher company operating performance. Fama and Jensen (1983) argue that a majority of independent non-executive directors on the board enhances the board's effectiveness in monitoring and control functions, thus deterring executives' fraudulent acts and reducing the company's operating risks. Forker (1992) claims that the presence of independent, non-executive directors on company boards improves the quality of financial disclosure, thus enhancing investor confidence and company performance. Mattingly (2004) suggests that

outside directors exercise a higher level of monitoring and control over the management's activities, because they are not part of the company's day to-day operations. Therefore, if the monitoring function of the board is well implemented, it will improve company's financial performance (Fama & Jensen 1983; Porter 2008). The Cadbury Report (1992), states that the presence of non-executive directors on the board enhances company performance while Gitundu et al. (2016), claim that independent non-executive directors positively influence company efficiency. Morekwa Nyamongo and Temesgen (2013) contend that the existence of independent boards of directors has enhanced the performance of banks in Kenya. Hence, based on the literature review and the inconclusive outcome from the data, this study recommends that EAC listed companies adopt a code of best practice that emphasises an increase in board independence rather than a decrease.

The third recommendation of this study concerns board size. The estimated coefficients of the statistically significant and not significant relationship between board size and proxies of company financial performance in the regression models (Table 5.5 to 5.8) suggest that larger board size has a negative impact on company financial performance. The descriptive statistics on average board size (Table 5.3) appear to suggest that the optimal board size in EAC-listed companies is no more than nine. This also warrants further investigation, involving a longer time lapse between the comparison periods, to allow companies to adequately transit to the EAC Common Market framework. Hence, this study suggests that EAC-listed companies should have a board size of no more than nine directors to avoid the disadvantage of large boards. A similar recommendation was offered by Firstenberg and Malkiel (1994) because small boards encourage more board participation, focus, interaction and debate, and because small boards are less likely to face free riding problems. According to Dalton, D. R. et al. (1999), bigger boards tend to lack cohesion, which limits the ability of the directors to connect with each other; consequently, it becomes difficult for the board to reach a consensus due to differences in opinions (Lipton & Lorsch 1992). Furthermore, according to Muth and Donaldson (1998), a large board makes it hard for an organisation to take quick decisions, because it would take the executive management more time and effort to achieve board consensus for strategic decision making. Moreover, Cheng (2008) suggests that having a large number of directors on the board increases the agency cost. Lipton and Lorsch (1992) identified dysfunctional behavioural norms and higher monitoring costs associated with a large board, while Goodstein, Gautam and Boeker (1994) submitted that a big board faces

problems of poor group cohesion and higher levels of internal power struggle and bickering. This may hinder the board from carrying out their advisory and monitoring functions (Nguyen, Pascal & Rahman 2015). In view of the above merits associated with smaller board sizes, this study recommends a board size of no more than nine directors. This recommendation is consistent with Lipton and Lorsch (1992) recommended optimum board size of eight or nine directors and Jensen, M. C. (1993) recommended optimum board size of seven or eight directors.

6.5 Recommended futures studies

The researcher recommends that further studies be carried out on corporate governance within the EAC, and that such studies cover more aspects of the topic, since this study did not exhaustively cover all areas of corporate governance and company performance within the EAC. In particular, the researcher suggests that future researchers consider carrying out a similar study using data from un-listed companies, SME's, or adopt different financial and non- financial performance indicators to test the influence of corporate governance. It would also be worthwhile for future researchers to expand the scope of this study and cover elements of corporate governance that are not covered in this study, such as duality of CEO's, conduct of board meetings and directors' qualifications, so as to provide a broader understanding of the nature of the relationship between corporate governance and company performance in the EAC.

Finally, since the benefits of implementing corporate governance have been advocated for by many researchers (see Daily & Dalton 1992; Gompers, Ishii & Metrick 2003; Lipton & Lorsch 1992; Porta, Lopez de Silanes & Shleifer 1999), it would be a good idea for future researchers to investigate the EAC's perceptions of good corporate governance policies, as a response to current corporate governance challenges, mainly manifested by high levels of corruption and misappropriations of company resources (Transparency International 2014). Such a study would consider the views of shareholders, management, employees, auditors, financial analysts, governments, suppliers and banks as the key company stakeholders within the EAC.

6.6 Contribution to Knowledge

Many corporate governance researchers have in the past concentrated on developed countries, while ignoring the developing countries, which resulted in a dearth of literature about corporate governance in developing economies (Chen, Kelly & Salterio 2010; Denis &

McConnell 2003; Gompers, Ishii & Metrick 2003; Okeahalam 2004; Prowse 1996). This is especially so with the African countries, where very few corporate governance studies have been carried out, compared to Europe, North America and Asia. This research was carried out with the hope of reducing the knowledge gap on corporate governance in the developing countries in general, and in the EAC in particular. This study is the first of its kind in the EAC to investigate the aggregate influence of board gender diversity, board independence, enterprise risk management, and board size on company financial performance. Therefore, this study contributes to the body of knowledge and literature on corporate governance and company financial performance in developing countries in general, and in the EAC in particular.

This study serves as a starting point for future research and provides information for future academic and reference purposes, investment decisions and stock market regulation. The findings from this study can also help in the formulation of corporate governance policies that enhance the financial performance of EAC-listed companies as well as other non-listed companies within the EAC. However, the study's findings revealed a lack of consistent statistically significant relationships between the dependent and independent variables. This may be because of the fact that some of the EAC's listed companies have not adequately adapted to the EAC common market and are not in a position to align their organisational structure or corporate governance practices to reap financial performance benefits from the EAC integration. Another possible reason is that no country in the EAC had (by 2014) amended its corporate governance guidelines and governance codes to enhance the quality of operations and practices within the framework of the EAC common market. An attempt to segregate the listed companies in the current study, according to the different stock exchanges, into heterogeneous segments for multiple group analysis would lead to sub-group sample sizes too small for obtaining reliable statistical results. Nevertheless, this study provides new knowledge about corporate governance indicators in the EAC countries before and after the operationalisation of the EAC common market.

6.7   Limitations of the study

A number of limitations were identified in this study. Firstly, the study used a sample of forty-two listed companies on the EAC stock markets. However, most companies within the EAC were not listed on the security market in 2008/2009 and 2013/2014 and hence did not qualify to be included in the sample. Similarly, some other private companies and SMEs were

not considered as part of this study, even though their performance depends on sound corporate governance policies (Chiloane-Tsoka & Rasivetshele 2014).

Secondly, this study used four corporate governance indicators (gender diversity of the board, board independence, enterprise risk management, and board size) which are considered very important in the EAC. However, a number of other corporate governance indicators such as the duality of CEO's, corporate social responsibility or ownership structures, can influence company financial performance. This study only took into consideration elements that were both important and the subject of previous research - gender diversity of the board, board independence, enterprise risk management, and board size.

Thirdly, the study used some of the least developed capital markets data in Africa, such as the Dar es Salaam Stock Exchange and the Uganda Security Exchange. On the other hand, the Nairobi Security Exchange is the most developed of all the EAC's stock markets, with 61 listed companies in 2013/2014, followed by the Dar es Salaam Stock Exchange that has 22 listed companies, with 16 listed companies while the Rwanda Stock Exchange has only 5 listed companies (NSE 2014a; RSE 2015b; USE 2014). Therefore, the unobserved heterogeneity, because of the differences between these stock markets, it is difficult to compare companies' performances across the EAC stock markets.

Finally, this study used secondary sources, including journal articles, e-books, press releases and websites to conduct a literature review on corporate governance and company financial performance while financial data was obtained from sources such as databases, published companies' annual reports and company websites. The use of secondary data sources has some limitations, such as lack of control over data quality (Saunders 2011). This resulted in the researcher using a small sample size which might have affected the study results (Rhoades, Rechner & Sundaramurthy 2000). Despite the above limitations, there were no significant compromises to the quality of this study, hence this study results remains reliable.

6.8   Conclusion

This study is the first of its kind to investigate the influence of corporate governance indicators on the financial performance of listed companies within the EAC. The study addresses its specific objectives, which were: (1) to determine the relationship between corporate governance indicators and company financial performance; (2) to compare the

corporate governance indicators before and after the operationalisation of the EAC- Common Market in 2010 and identify the impact of changes on EAC companies' financial performance; and (3) to suggest recommendations about corporate governance indicators for enhancing company financial performance. Four hypotheses were used to test the influence of corporate governance indicators (gender diversity of the board, board independence, enterprise risk management, and board size) on company financial performance (ROA, ROE, LnTBQ and LnPER) and one hypothesis was adopted to examine the changes in corporate governance indicators before and after the establishment of the EAC common market.

The findings of this study did not support hypotheses H_1 and H_3 while H_2, H4, and H_5 were inconclusive. The study's outcomes indicated that gender diversity of the board (H_1) had no statistically significant influence on company financial performance indicators such as ROA, ROE, LnTBQ and LnPER. The relationship between board independence (H_2) and company financial performance was inconclusive, while the OLS results also revealed no significant relationship between enterprise risk management (H_3) and company financial performance measured by ROA, ROE, LnTBQ and LnPER. The study also discovered that the majority of companies within the EAC did not implement enterprise risk management, which might have been due to the high costs associated with its implementation (Kerstin, Simone & Nicole 2014). The regression results on the board size (H_4) and company performance revealed inconclusive results. Finally, the result of the hypothesis H_5 about changes in corporate governance indicators before (2008/2009) and after (2013/2014) the operationalisation of the EAC- Common market indicated inconclusive results. This study thus recommended that EAC-listed companies adopt a code of best practice that emphasises an increase, rather than a decrease, in board independence to improve board advisory and monitoring functions which may have a positive contribution to company financial performance (Harris, M & Raviv 2008; Raheja 2005). Secondly, the study proposes that EAC-listed companies should have a board size of no more than nine members. This would help them to avoid the disadvantage of large boards.

Despite the statistically insignificant and inconclusive relationships between the corporate governance indicators and company financial performance, the results from each regression model fit reveal that these indicators have become relatively more relevant to company financial performance after the operationalisation of EAC common market in 2013/2014 than

in the period 2018/2019 prior to this market integration. Future studies should continue the investigation of these corporate governance indicators, by expanding the research scope to include unlisted companies and other financial and non-financial performance indicators, as well as additional corporate governance indicators to further identify models for determining the impact and significance of corporate governance on company financial performance, and also changes following the operationalisation of the EAC common market. A longer time lapse for tracking changes in corporate governance indicators after the operationalisation of the EAC common market is also recommended to allow for companies to adequately transit and adapt to the EAC common market framework.

References

Abbott, LJ, Parker, S & Peters, GF 2004, 'Audit committee characteristics and restatements', Auditing-a Journal of Practice & Theory, vol. 23, no. 1, pp. 69-87.

Abdullah, H & Valentine, B 2009, 'Fundamental and ethics theories of corporate governance', Middle Eastern Finance and Economics, vol. 4, no. 4, pp. 88-96.

Abdullah, SN 2004, 'Board composition, CEO duality and performance among Malaysian listed companies', Corporate governance, vol. 4, no. 4, pp. 47-61.

Abor, J & Fiador, V 2013, 'Does corporate governance explain dividend policy in Sub-Saharan Africa?', International Journal of Law and Management, vol. 55, no. 3, pp. 201-25.

Acharya, VV, Myers, SC & Rajan, RG 2011, 'The Internal Governance of Firms', Journal of Finance, vol. 66, no. 3, pp. 689-720.

Adams, R, Hermalin, BE & Weisbach, MS 2008, The role of boards of directors in corporate governance: A conceptual framework and survey, National Bureau of Economic Research.

Adams, RB & Ferreira, D 2009, 'Women in the boardroom and their impact on governance and performance', Journal of financial economics, vol. 94, no. 2, pp. 291-309.

Adams, RB & Funk, P 2012, 'Beyond the glass ceiling: does gender matter?', Management science, vol. 58, no. 2, pp. 219-35.

Adams, RB, Gray, S & Nowland, J 2011, 'Does gender matter in the boardroom? Evidence from the market reaction to mandatory new director announcements', Evidence from the Market Reaction to Mandatory New Director Announcements (November 2, 2011).

Adegbite, E 2012, 'Corporate governance regulation in Nigeria', Corporate Governance: The international journal of business in society, vol. 12, no. 2, pp. 257-76.

Aebi, V, Sabato, G & Schmid, M 2012, 'Risk management, corporate governance, and bank performance in the financial crisis', Journal of Banking & Finance, vol. 36, no. 12, pp. 3213-26.

Agarwal, R & Ansell, J 2016, 'Strategic Change in Enterprise Risk Management', Strategic Change-Briefings in Entrepreneurial Finance, vol. 25, no. 4, pp. 427-39.

Agarwal, Y 2013, Capital structure decisions: Evaluating risk and uncertainty, John Wiley & Sons.

Agrawal, A & Knoeber, CR 1996, 'Firm performance and mechanisms to control agency problems between managers and shareholders', Journal of Financial and Quantitative Analysis, vol. 31, no. 3, pp. 377-97.

Aguilera, RV, Desender, K, Bednar, MK & Lee, JH 2015, 'Connecting the dots: Bringing external corporate governance into the corporate governance puzzle', The Academy of Management Annals, vol. 9, no. 1, pp. 483-573.

Aguiló, TIE & Aguiló, NFE 2012, 'Family business and firm performance: evidence from the Mexican Stock Exchange', International Journal of Management Practice, vol. 5, no. 4, p. 304.

Agyekum, AAB, Otchere, FA & Bedi, I 2014, 'Earnings management and corporate governance: the Ghanaian experience', International Journal of Management Practice, vol. 7, no. 4, p. 309.

Ahern, KR & Dittmar, AK 2012, 'The Changing of the Boards: The Impact on Firm Valuation of Mandated Female Board Representation', Quarterly Journal of Economics, vol. 127, no. 1, pp. 137-97.

Aik, NC, Hassan, T & Mohamad, S 2015, 'Do Malaysian Horizontal Mergers and Acquisitions Create Value?', Global Business Review, vol. 16, no. 5_suppl, pp. 15S-27S.

Aiken, LS, West, SG & Pitts, SC 2003, 'Multiple linear regression', Handbook of psychology.

Alagha, HS 2016, 'Corporate Governance Practices and Firm Performance of Listed Companies Including Islamic Financial Institutions in the United Arab Emirates', Victoria University.

Aldridge, IE 2004, 'Why Are Financial Markets Regulated? An Empirical Investigation of Validity of Regulation Theories', An Empirical Investigation of Validity of Regulation Theories.(April 3, 2004).

Amba, SM 2014, 'Corporate governance and firms' financial performance', Journal of Academic and Business Ethics, vol. 8, p. 1.

Ambrosini, V 2007, 'The resource-based view of the firm', in M Jenkins, V Ambrosini & N Collier (eds), Advanced strategic management: a multi-perspective approach, pp. 132 -47.

Ameer, R, Ramli, F & Zakaria, H 2010, 'A new perspective on board composition and firm performance in an emerging market', Corporate Governance: The international journal of business in society, vol. 10, no. 5, pp. 647-61.

Anderson, RC & Reeb, DM 2003, 'Founding-family ownership and firm performance: evidence from the S&P 500', The journal of Finance, vol. 58, no. 3, pp. 1301-28.

Ang, JS, Cole, RA & Lin, JW 2000, 'Agency costs and ownership structure', Journal of Finance, vol. 55, no. 1, pp. 81-106.

Ansong, A 2013, 'Risk Management as a Conduit of Effective Corporate Governance and Financial Performance of Small and Medium Scale Enterprises', Developing Country Studies, vol. 3, no. 8, pp. 159-63.

Aoki, M 2001, Toward a comparative institutional analysis, MIT press.

Arena, M, Arnaboldi, M & Azzone, G 2010, 'The organizational dynamics of Enterprise Risk Management', Accounting Organizations and Society, vol. 35, no. 7, pp. 659-75.

Arosa, B, Iturralde, T & Maseda, A 2013, 'The board structure and firm performance in SMEs: Evidence from Spain', Investigaciones Europeas de Dirección y Economía de la Empresa, vol. 19, no. 3, pp. 127-35.

Arping, S & Sautner, Z 2010, 'The effect of corporate governance regulation on transparency: evidence from the Sarbanes-Oxley Act of 2002', in SSRN: http://ssrn. com/abstract, vol. 1561619.

Ashforth, BE & Gibbs, BW 1990, 'The Double-Edge of Organizational Legitimation', Organization science, vol. 1, no. 2, pp. 177-94.

Asiedu, E 2004, 'Policy reform and foreign direct investment in Africa: Absolute progress but relative decline', Development Policy Review, vol. 22, no. 1, pp. 41-8.

Atinc, G, Simmering, MJ & Kroll, MJ 2011, 'Control variable use and reporting in macro and micro management research', Organizational Research Methods, p. 1094428110397773.

Auerbach, AJ 1980, Wealth maximization and the cost of capital, National Bureau of Economic Research Cambridge, Mass., USA.

Babbie, E 2013, The basics of social research, Cengage Learning.

Baek, JS, Kang, JK & Park, KS 2004, 'Corporate governance and firm value: evidence from the Korean financial crisis', Journal of financial economics, vol. 71, no. 2, pp. 265-313.

Baglioni, A & Colombo, L 2013, 'The efficiency view of corporate boards: theory and evidence', Applied Economics, vol. 45, no. 4, pp. 497-510.

Baier, SL, Dwyer, GP & Tamura, R 2004, 'Does opening a stock exchange increase economic growth?', Journal of International Money and Finance, vol. 23, no. 3, pp. 311-31.

Baker, HK & Anderson, R 2010, Corporate governance: A synthesis of theory, research, and practice, vol. 8, John Wiley & Sons.

Banker, RD, Potter, G & Srinivasan, D 2000, 'An empirical investigation of an incentive plan that includes nonfinancial performance measures', Accounting review, vol. 75, no. 1, pp. 65-92.

Barako, DG & Brown, AM 2008, 'Corporate social reporting and board representation: evidence from the Kenyan banking sector', Journal of Management & Governance, vol. 12, no. 4, pp. 309-24.

Barontini, R & Caprio, L 2006, 'The Effect of Family Control on Firm Value and Performance: Evidence from Continental Europe', European Financial Management, vol. 12, no. 5, pp. 689-723.

Bart, C & McQueen, G 2013, 'Why women make better directors', International Journal of Business Governance and Ethics, vol. 8, no. 1, pp. 93-9.

Basarab, D 2010, Predictive evaluation: Ensuring training delivers business and organizational results, Berrett-Koehler Publishers.

Baty, F, Ritz, C, Charles, S, Brutsche, M, Flandrois, JP & Delignette-Muller, ML 2015, 'A Toolbox for Nonlinear Regression in R: The Package nlstools', Journal of Statistical Software, vol. 66, no. 5, pp. 1-21.

Baums, T 1994, The German banking system and its impacts on corporate finance and governance, Economic Development Institute of the World Bank.

Baxter, R, Bedard, JC, Hoitash, R & Yezegel, A 2013, 'Enterprise Risk Management Program Quality: Determinants, Value Relevance, and the Financial Crisis', Contemporary accounting research, vol. 30, no. 4, pp. 1264-95.

Baysinger, BD & Butler, HN 1985, 'Corporate governance and the board of directors: Performance effects of changes in board composition', Journal of Law, Economics, & Organization, vol. 1, no. 1, pp. 101-24.

Beasley, M, Pagach, D & Warr, R 2008, 'Information conveyed in hiring announcements of senior executives overseeing enterprise-wide risk management processes', Journal of Accounting, Auditing & Finance, vol. 23, no. 3, pp. 311-32.

Beasley, MS 1996, 'An empirical analysis of the relation between the board of director composition and financial statement fraud', Accounting review, vol. 71, no. 4, pp. 443-65.

Benkler, Y 2002, 'Coase's Penguin, or, Linux and" The Nature of the Firm"', Yale Law Journal, pp. 369-446.

Berglof, E & Claessens, S 2004, 'Enforcement and corporate governance', World Bank Policy Research Working Paper, no. 3409.

Berle, A & Means, GC 1932, The modern corporation and private property, New York, Macmillan Co.

Bernstein, LA & Wild, JJ 1993, Analysis of financial statements, Business One Irwin.

Bettis, RA 1983, 'Modern financial theory, corporate strategy and public policy: Three conundrums', Academy of Management review, vol. 8, no. 3, pp. 406-15.

Bhaduri, SN & Selarka, E 2016, 'Corporate Governance: An Overview', in Corporate Governance and Corporate Social Responsibility of Indian Companies, Springer, pp. 61-72.

Bhagat, S & Bolton, B 2008, 'Corporate governance and firm performance', Journal of Corporate Finance, vol. 14, no. 3, pp. 257-73.

Bhagat, S & Jefferis, RH 2005, The econometrics of corporate governance studies, Mit Press.

Bickel, P & Lehmann, E 2012, 'Descriptive statistics for nonparametric models I. Introduction', in Selected Works of EL Lehmann, Springer, pp. 465-71.

Bikhchandani, S & Sharma, S 2000, 'Herd behavior in financial markets', IMF Staff papers, pp. 279-310.

Black, BS, Love, I & Rachinsky, A 2006, 'Corporate governance indices and firms' market values: Time series evidence from Russia', Emerging Markets Review, vol. 7, no. 4, pp. 361-79.

Blaga, S 2011, 'Australian corporate governance and distribution of power', Review of Economic Studies and Research Virgil Madgearu, vol. 4, no. 1, p. 5.

Blair, MM 1995, 'Rethinking assumptions behind corporate governance', Challenge, pp. 12-7.

Bohren, O & Strom, RO 2010, 'Governance and Politics: Regulating Independence and Diversity in the Board Room', Journal of Business Finance & Accounting, vol. 37, no. 9-10, pp. 1281-308.

Bonn, I, Yoshikawa, T & Phan, PH 2004, 'Effects of board structure on firm performance: A comparison between Japan and Australia', Asian Business & Management, vol. 3, no. 1, pp. 105-25.

Bowerman, BL, O'Connell, RT, Murphree, E, Huchendorf, SC & Porter, DC 2003, Business statistics in practice, McGraw-Hill/Irwin New York.

BPP 2007, ACCA paper P3: business analysis BPP learning media, London: Aldine Place.

Brav, A, Jiang, W, Partnoy, F & Thomas, R 2008, 'Hedge fund activism, corporate governance, and firm performance', Journal of Finance, vol. 63, no. 4, pp. 1729-75.

Brennan, NM, Solomon, J, Uddin, S & Choudhury, J 2008, 'Rationality, traditionalism and the state of corporate governance mechanisms: Illustrations from a less-developed country', Accounting, Auditing & Accountability Journal, vol. 21, no. 7, pp. 1026-51.

Broadbridge, A, Hearn, J, Huse, M & Grethe Solberg, A 2006, 'Gender-related boardroom dynamics: How Scandinavian women make and can make contributions on corporate boards', Women in Management Review, vol. 21, no. 2, pp. 113-30.

Bromiley, P, McShane, M, Nair, A & Rustambekov, E 2015, 'Enterprise Risk Management: Review, Critique, and Research Directions', Long range planning, vol. 48, no. 4, pp. 265-76.

Brown, LD & Caylor, ML 2006, 'Corporate governance and firm valuation', Journal of accounting and public policy, vol. 25, no. 4, pp. 409-34.

Brownbridge, M 2002, 'Resolving bank failures in Uganda: Policy lessons from recent bank failures', Development Policy Review, vol. 20, no. 3, pp. 279-91.

Bryman, A & Bell, E 2015, Business research methods, Oxford University Press, USA.

CACG 1999, Principles for corporate governance in the commonwealth, Commonwealth Association for Corporate Governance (CACG)
viewed 04 September 2015, <http://www.ecgi.org/codes/documents/cacg_final.pdf>.

Cadbury, A 1992, Report of the committe on the financial aspects of corporate governance, December edn, vol. 1, London, UK.

Campbell, K & Minguez-Vera, A 2008, 'Gender Diversity in the Boardroom and Firm Financial Performance', Journal of Business Ethics, vol. 83, no. 3, pp. 435-51.

Carcel, H, Gil-Alana, LA & Madigu, G 2015, 'Inflation Convergence in the East African Community: A Fractional Integration and Cointegration Study', Global Economy Journal, vol. 15, no. 4, pp. 507-24.

Carpenter, MA 2002, 'The implications of strategy and social context for the relationship between top management team heterogeneity and firm performance', Strategic management journal, vol. 23, no. 3, pp. 275-84.

Carroll & Buchholtz, A 2014, Business and society: Ethics, sustainability, and stakeholder management, Cengage Learning.

Carter, DA, D'Souza, F, Simkins, BJ & Simpson, WG 2010, 'The Gender and Ethnic Diversity of US Boards and Board Committees and Firm Financial Performance', Corporate Governance-an International Review, vol. 18, no. 5, pp. 396-414.

Carter, DA, Simkins, BJ & Simpson, WG 2003, 'Corporate governance, board diversity, and firm value', Financial Review, vol. 38, no. 1, pp. 33-53.

Chakravarthy, BS 1986, 'Measuring strategic performance', Strategic management journal, vol. 7, no. 5, pp. 437-58.

Chen, Q, Kelly, K & Salterio, S 2010, 'Do audit actions consistent with increased auditor scepticism deter potential management malfeasance?', in CAAA Annual Conference.

Cheng, S 2008, 'Board size and the variability of corporate performance', Journal of financial economics, vol. 87, no. 1, pp. 157-76.

Cheserek, BK 2007, 'The determinants of bank failures: a survey of commercial banks in Kenya', University of Nairobi.

Chiloane-Tsoka, E & Rasivetshele, AM 2014, 'Corporate social responsibility: A toolkit for SMEs efficiency in Tshwane, South Africa', Problems and Perspectives in Management, vol. 12, no. 4, pp. 276-82.

Cho, DS & Kim, J 2003, 'Determinants in introduction of outside directors in Korean companies', Journal of International and Area Studies, pp. 1-20.

Chorafas, DN 2004, The Management of Equity Investments, Butterworth-Heinemann.

Claessens, S & Forbes, K 2013, International financial contagion, Springer Science & Business Media.

Claessens, S & Yurtoglu, BB 2013, 'Corporate governance in emerging markets: A survey', Emerging Markets Review, vol. 15, pp. 1-33.

Clarke, T 2004, Theories of corporate governance: The philosophical foundations of corporate governance, Routledge.

—— 2007, International corporate governance: A comparative approach, Routledge.

Clarkson, MBE 1995, 'A Stakeholder Framework for Analyzing and Evaluating Corporate Social Performance', Academy of management review, vol. 20, no. 1, pp. 92-117.

CMA, K 2002, 'Guidelines on Corporate Governance in public listed Companies in Kenya', Kenya Gazette Notice No. 369, 122, vol. 128.

—— 2014a, Draft code of corporate governance practices for public listed companies in Kenya viewed 11 March 2015, <http://www.ecgi.org/codes/documents/draft_cg_code_kenya_19may2014_en.pdf>.

—— 2014b, Draft Kenya corporate governance blueprint, February edn, Nairobi, Kenya, 11, March, <<http://www.ecgi.org/codes/documents/draft_cg_code_kenya_19may2014_en.pdf>.>.

CMA Kenya 2015, East African Securities Regulatory Authorities (EASRA), viewed 11 March 2015, <http://cma.or.ke/index.php?option=com_content&view=article&id=379:about-easra&catid=30&Itemid=410>.

CMA, U 2003, The capital markets corporate governance guidelines; Uganda, viewed 18 December 2014, <http://www.cmauganda.co.ug/files/downloads/Corporate%20Governance%20Guidelines.pdf>.

Coase, RH 1937, 'The nature of the firm', Economica, vol. 4, no. 16, pp. 386-405.

Code, C 2010, 'The UK corporate governance code', London: Financial Reporting Council.

Coles, JL, Daniel, ND & Naveen, L 2008, 'Boards: Does one size fit all?', Journal of financial economics, vol. 87, no. 2, pp. 329-56.

Collins, H 2010, Creative research: the theory and practice of research for the creative industries, Ava Publishing.

Collis, J & Hussey, R 2013, Business research: A practical guide for undergraduate and postgraduate students, Palgrave macmillan.

Conyon, MJ & Peck, SI 1998, 'Board size and corporate performance: evidence from European countries', The European Journal of Finance, vol. 4, no. 3, pp. 291-304.

Cook, DJ & Krishnan, NC 2015, Activity Learning: Discovering, Recognizing, and Predicting Human Behavior from Sensor Data, John Wiley & Sons.

COSO 2004, Enterprise Risk Management —Integrated Framework, viewed 14, July 2016, <http://www.coso.org/documents/coso_erm_executivesummary.pdf>.

Dacin, MT, Goodstein, J & Scott, WR 2002, 'Institutional theory and institutional change: Introduction to the special research forum', Academy of Management Journal, vol. 45, no. 1, pp. 45-56.

Daily, CM & Dalton, DR 1992, 'The Relationship between Governance Structure and Corporate Performance in Entrepreneurial Firms', Journal of Business Venturing, vol. 7, no. 5, pp. 375-86.

Daily, CM, Johnson, JL & Dalton, DR 1999, 'On the measurements of board composition: Poor consistency and a serious mismatch of theory and operationalization', Decision Sciences, vol. 30, no. 1, pp. 83-106.

Dalton, DR & Daily, CM 1999, 'What's wrong with having friends on the board?', Across the board, vol. 36, pp. 28-32.

Dalton, DR, Daily, CM, Ellstrand, AE & Johnson, JL 1998, 'Meta-analytic reviews of board composition, leadership structure, and financial performance', Strategic management journal, vol. 19, no. 3, pp. 269-90.

Dalton, DR, Daily, CM, Johnson, JL & Ellstrand, AE 1999, 'Number of directors and financial performance: A meta-analysis', Academy of Management Journal, vol. 42, no. 6, pp. 674-86.

Davies, M & Schlitzer, B 2008, 'The impracticality of an international "one size fits all" corporate governance code of best practice', Managerial Auditing Journal, vol. 23, no. 6, pp. 532-44.

Davis, GF 2005, 'New directions in corporate governance', Annual Review of Sociology, vol. 31, pp. 143-62.

Davis, JH, Schoorman, FD & Donaldson, L 1997, Davis, Schoorman, and Donaldson reply: The distinctiveness of agency theory and stewardship theory, JSTOR, 0363-7425.

de Aguiar, AB, Pinheiro, PN & Oyadomari, JCT 2014, 'How do different performance measures affect managerial time orientation? Empirical evidence from sales managers in the oil and gas industry', Advances in Accounting, vol. 30, no. 1, pp. 143-53.

De Andres, P, Azofra, V & Lopez, F 2005, 'Corporate boards in OECD countries: Size, composition, functioning and effectiveness', Corporate Governance: An International Review, vol. 13, no. 2, pp. 197-210.

De Vries, M & Nemec, J 2013, 'Public sector reform: an overview of recent literature and research on NPM and alternative paths', International Journal of Public Sector Management, vol. 26, no. 1, pp. 4-16.

Deegan, C 2013, Financial accounting theory, McGraw-Hill Education Australia.

DeFond, ML, Lim, CY & Zang, Y 2012, 'Do auditors value client conservatism', University of Southern California, Singapore Management University.

Denis, DK & McConnell, JJ 2003, 'International corporate governance', Journal of Financial and Quantitative Analysis, vol. 38, no. 1, pp. 1-36.

Dixit, A & Williamson, A 1988, Adjustment lending: an evaluation of ten years of experience, The World Bank.

Doane, DP & Seward, LE 2011, 'Measuring skewness: a forgotten statistic', Journal of Statistics Education, vol. 19, no. 2, pp. 1-18.

Donaldson, L & Davis, H 1989, Ceo governance and shareholder returns: Agency theory or stewardship theory [paper presented at annual meeting of the Academy of Management, Washington, DC], Donaldson Washington, DC,; cited in Davis, Schoorman.

Donaldson, L & Davis, JH 1991, 'Stewardship theory or agency theory: CEO governance and shareholder returns', Australian Journal of management, vol. 16, no. 1, pp. 49-64.

Donaldson, T & Preston, LE 1995, 'The Stakeholder Theory of the Corporation - Concepts, Evidence, and Implications', Academy of management review, vol. 20, no. 1, pp. 65-91.

Dore, R 1993, 'What makes the Japanese different?', Ethics and Markets: Cooperation and Competition within Capitalist Economies (Blackwell) pp, pp. 66-79.

Duckert, GH 2010, Practical enterprise risk management: A business process approach, vol. 15, John Wiley & Sons.

Dudin, MN 2015, 'The Balanced Scorecard as a basis for strategic company management in the context of the world economy transformation', Asian Social Science.–Vol1, no. 3, pp. 282-8.

Durnev, A & Kim, E 2005, 'To steal or not to steal: Firm attributes, legal environment, and valuation', The journal of Finance, vol. 60, no. 3, pp. 1461-93.

Duru, A, Iyengar, RJ & Zampelli, EM 2016, 'The dynamic relationship between CEO duality and firm performance: The moderating role of board independence', Journal of Business Research, vol. 69, no. 10, pp. 4269-77.

EAC 2015, East African Community: One people one destiny, viewed 29 July 2015, <http://www.eac.int/index.php?option=com_content&view=frontpage&Itemid=1>.

—— 2016a, East African Community viewed 15 March 2016, <http://www.eac.int/>.

—— 2016b, East African Community: One people one destiny, viewed 15 March 2016, <<http://www.eac.int/>.>.

—— 2016c, East African Community: One people one destiny (Integration Pillars), viewed 15 March 2016, <<http://www.eac.int/>.>.

—— 2016d, East African Community: One people one destiny (Burundi), viewed 15 March 2016, <http://www.eac.int/about/partner-states/Burundi>.

—— 2016e, East African Community: One people one destiny (Rwnda), viewed 15 March 2016, <http://www.eac.int/about/partner-states/Rwanda>.

—— 2016f, East African Community: One people one destiny (Tanzania), viewed 15 March 2016, <http://www.eac.int/about/partner-states/Tanzania>.

Eagly, AH, Johannesen-Schmidt, MC & van Engen, ML 2003, 'Transformational, transactional, and laissez-faire leadership styles: a meta-analysis comparing women and men', Psychological Bulletin, vol. 129, no. 4, pp. 569-91.

Easterby-Smith, M, Thorpe, R & Jackson, PR 2012, Management research, Sage.

Eccles, RG & Mavrinac, SC 1995, 'Improving the Corporate Disclosure Process', Sloan Management Review, vol. 36, no. 4, pp. 11-25.

ECGI 2014, Index of codes, viewed 10 September 2014, <http://www.ecgi.org/codes/all_codes.php>.

Eckel, CC & Grossman, PJ 2008, 'Men, women and risk aversion: Experimental evidence', Handbook of experimental economics results, vol. 1, pp. 1061-73.

Eikelenboom, B 2005, Organizational capabilities and bottom line performance: The relationship between organizational architecture and strategic performance of business units in Dutch headquartered multinationals, Eburon Uitgeverij BV.

Eisenberg, T 2005, 'Larger board size and decreasing firm value in small firms', Journal of financial economics, vol. 48, no. 1, pp. 35-54.

Eisenberg, T, Sundgren, S & Wells, MT 1998, 'Larger board size and decreasing firm value in small firms', Journal of financial economics, vol. 48, no. 1, pp. 35-54.

El-Shishini, HM 2001, 'Integrating Financial And Non-Financial Performance Measures: The State Of The Art And Research Opportunities', in Management Accounting Research Group Conference, Aston Business School.

Elliott, AC & Woodward, WA 2007, Statistical analysis quick reference guidebook: With SPSS examples, Sage.

Ellul, A & Yerramilli, V 2013, 'Stronger Risk Controls, Lower Risk: Evidence from US Bank Holding Companies', Journal of Finance, vol. 68, no. 5, pp. 1757-803.

Fabozzi, FJ & Drake, PP 2009, Finance: capital markets, financial management, and investment management, vol. 178, John Wiley & Sons.

Fama, EF 1980, 'Agency Problems and the Theory of the Firm', Journal of Political Economy, vol. 88, no. 2, pp. 288-307.

Fama, EF & Jensen, MC 1983, 'Agency Problems and Residual Claims', Journal of Law & Economics, vol. 26, no. 2, pp. 327-49.

Farrell, KA & Hersch, PL 2005, 'Additions to corporate boards: the effect of gender', Journal of Corporate Finance, vol. 11, no. 1-2, pp. 85-106.

Farrell, M & Gallagher, R 2015, 'The valuation implications of enterprise risk management maturity', Journal of Risk and Insurance, vol. 82, no. 3, pp. 625-57.

Fauzi, F & Locke, S 2012, 'Board structure, ownership structure and firm performance: A study of New Zealand listed-firms'.

Fawcett, R & Pringle, JK 2000, 'Women CEOs in New Zealand: where are you?', Women in Management Review, vol. 15, no. 5/6, pp. 253-60.

Feltham, GA & Xie, J 1994, 'Performance measure congruity and diversity in multi-task principal/agent relations', Accounting review, pp. 429-53.

Ferreira, A & Otley, D 2009, 'The design and use of performance management systems: An extended framework for analysis', Management Accounting Research, vol. 20, no. 4, pp. 263-82.

Fiador, V, Abor, PA & Abor, J 2012, 'How do we explain corporate board structure in sub-Saharan Africa?', International Journal of Business Governance and Ethics, vol. 7, no. 2, p. 118.

Field, A 2009, Discovering statistics using SPSS, Sage publications.

Firstenberg, PB & Malkiel, BG 1994, 'The twenty-first century boardroom: who will be in charge?', Sloan Management Review, vol. 36, no. 1, p. 27.

Fisher, I 1930, 'The Theory of Interest as Determined By Impatience to Spend Income and Opportunity to Spend It'.

Florio, C & Leoni, G 2017, 'Enterprise risk management and firm performance: The Italian case', British Accounting Review, vol. 49, no. 1, pp. 56-74.

Ford, RC & Richardson, WD 1994, 'Ethical Decision-Making - a Review of the Empirical Literature', Journal of Business Ethics, vol. 13, no. 3, pp. 205-21.

Forker, JJ 1992, 'Corporate governance and disclosure quality', Accounting and Business research, vol. 22, no. 86, pp. 111-24.

Fosberg, RH 1989, 'Outside Directors and Managerial Monitoring', Akron Business and Economic Review, vol. 20, no. 2, pp. 24-32.

Francoeur, C, Labelle, R & Sinclair-Desgagne, B 2008, 'Gender diversity in corporate governance and top management', Journal of Business Ethics, vol. 81, no. 1, pp. 83-95.

Freeman, RE 2010, Strategic management: A stakeholder approach, Cambridge University Press.

Freeman, RE, Harrison, JS, Wicks, AC, Parmar, BL & De Colle, S 2010, Stakeholder theory: The state of the art, Cambridge University Press.

Friedman, M 2007, The social responsibility of business is to increase its profits, Springer.

Frigo, ML & Anderson, RJ 2011, 'Strategic risk management: A foundation for improving enterprise risk management and governance', Journal of Corporate Accounting & Finance, vol. 22, no. 3, pp. 81-8.

Fuenzalida, D, Mongrut, S, Arteaga, JR & Erausquin, A 2013, 'Good corporate governance: Does it pay in Peru?', Journal of Business Research, vol. 66, no. 10, pp. 1759-70.

Fulgence, SE 2014, 'Corporate Governance in Tanzania', in Corporate governance, Springer, pp. 157-85.

Gabrielsson, J 2007, 'Boards of directors and entrepreneurial posture in medium-size companies - Putting the board demography approach to a test', International Small Business Journal, vol. 25, no. 5, pp. 511-37.

Gakeri, KJ 2013, 'Enhancing Kenya's Securities Markets through Corporate Governance: Challenges and Opportunities', vol. 3, no. 6, pp. 94 -117.

Garg, AK 2007, 'Influence of board size and independence on firm performance: A study of Indian companies', Vikalpa, vol. 32, no. 3, pp. 39-60.

Gentry, RJ & Shen, W 2010, 'The relationship between accounting and market measures of firm financial performance: How strong is it?', Journal of Managerial Issues, pp. 514-30.

Ghasemi, A & Zahediasl, S 2012, 'Normality tests for statistical analysis: a guide for non-statisticians', Int J Endocrinol Metab, vol. 10, no. 2, pp. 486-9.

Gibson, MS 2000, 'Big Bang deregulation and Japanese corporate governance: a survey of the issues', in Crisis and Change in the Japanese Financial System, Springer, pp. 291-314.

Gill, J & Johnson, P 2010, Research methods for managers, Sage.

Gilpin, R 2001, 'Global political economy understanding the international economic order'Princeton University Press', Princeton NJ.

Giovinco, A 2014, 'Gender diversity in the boardroom. Context and Spanish case', Corporate Board: Role, Duties and Composition, vol. 10, no. 3, pp. 60-76.

Gitundu, EW, Kisaka, SE, Kiprop, SK & Kibet, LK 2016, 'The effects of ownership and corporate governance reforms on efficiency of privatized companies in Kenya', International Journal of Economics and Financial Issues, vol. 6, no. 1, pp. 323-31.

Gompers, P, Ishii, J & Metrick, A 2003, Corporate governance and equity prices, Quarterly Journal of Economics.

Gong, GW 2002, 'Standards of civilization today', Globalization and Civilizations, pp. 77-96.

Goodstein, J, Gautam, K & Boeker, W 1994, 'The Effects of Board Size and Diversity on Strategic Change', Strategic management journal, vol. 15, no. 3, pp. 241-50.

Gordon, LA, Loeb, MP & Tseng, CY 2009, 'Enterprise risk management and firm performance: A contingency perspective', Journal of accounting and public policy, vol. 28, no. 4, pp. 301-27.

Grace, MF, Leverty, JT, Phillips, RD & Shimpi, P 2015, 'The Value of Investing in Enterprise Risk Management', Journal of Risk and Insurance, vol. 82, no. 2, pp. 289-316.

Grandori, A 2004, Corporate governance and firm organization: microfoundations and structural forms, Oxford University Press, USA.

Grant, GH 2003, 'The evolution of corporate governance and its impact on modern corporate America', Management Decision, vol. 41, no. 9, pp. 923-34.

Grant, P & McGhee, P 2014, 'Corporate governance reform: character-building structures', Business Ethics-a European Review, vol. 23, no. 2, pp. 125-38.

Greenwood, R & Hinings, CR 1996, 'Understanding radical organizational change: Bringing together the old and the new institutionalism', Academy of management review, vol. 21, no. 4, pp. 1022-54.

Gross, K 2007, Equity ownership and performance: An empirical study of German traded companies, Springer Science & Business Media.

Groysberg, B & Bell, D 2013, 'Dysfunction in the boardroom', Harvard Business Review, vol. 91, no. 6, pp. 89-97.

Guest, PA 2008, 'The determinants of board size and composition: Evidence from the UK', Journal of Corporate Finance, vol. 14, no. 1, pp. 51-72.

Hall, JH & Brummer, L 1999, 'The relationship between the market value of a company and internal performance measurements', Available at SSRN 141189.

Hambrick, DC 2007, 'Upper echelons theory: An update', Academy of management review, vol. 32, no. 2, pp. 334-43.

Haniffa, R, Abdul Rahman, R & Haneem Mohamed Ali, F 2006, 'Board, audit committee, culture and earnings management: Malaysian evidence', Managerial Auditing Journal, vol. 21, no. 7, pp. 783-804.

Haniffa, R & Hudaib, M 2006, 'Corporate governance structure and performance of Malaysian listed companies', Journal of Business Finance & Accounting, vol. 33, no. 7-8, pp. 1034-62.

Harris, R 1994, 'The Bubble Act - Its Passage and Its Effects on Business Organization', Journal of Economic History, vol. 54, no. 3, pp. 610-27.

Hart, SL & Ahuja, G 1996, 'Does it pay to be green? An empirical examination of the relationship between emission reduction and firm performance', Business strategy and the Environment, vol. 5, no. 1, pp. 30-7.

Haslam, SA, Ryan, MK, Kulich, C, Trojanowski, G & Atkins, C 2010, 'Investing with Prejudice: the Relationship Between Women's Presence on Company Boards and Objective and Subjective Measures of Company Performance', British Journal of Management, vol. 21, no. 2, pp. 484-97.

Haxhi, I & Aguilera, RV 2014, 'Corporate Governance Through Codes', Wiley Encyclopedia of Management.

Hayes, AF & Cai, L 2007, 'Using heteroskedasticity-consistent standard error estimators in OLS regression: An introduction and software implementation', Behavior Research Methods, vol. 39, no. 4, pp. 709-22.

He, JY & Huang, Z 2011, 'Board Informal Hierarchy and Firm Financial Performance: Exploring a Tacit Structure Guiding Boardroom Interactions', Academy of Management Journal, vol. 54, no. 6, pp. 1119-39.

Heenetigala, K 2011, 'Corporate governance practices and firm performance of listed companies in Sri Lanka', Victoria University Melbourne.

Hengartner, L 2006, Explaining Executive Pay: The roles of management power and complexity, Wiesbaden.

Henn, M, Weinstein, M & Foard, N 2005, A short introduction to social research, Sage.

Henry, D 2008, 'Corporate governance structure and the valuation of Australian firms: is there value in ticking the boxes?', Journal of Business Finance & Accounting, vol. 35, no. 7-8, pp. 912-42.

Hermalin, BE & Weisbach, MS 1991, 'The Effects of Board Composition and Direct Incentives on Firm Performance', Financial management, vol. 20, no. 4, pp. 101-12.

Heugens, PPMAR, van Essen, M & van Oosterhout, J 2009, 'Meta-analyzing ownership concentration and firm performance in Asia: Towards a more fine-grained understanding', Asia Pacific Journal of Management, vol. 26, no. 3, pp. 481-512.

Hillman, AJ, Cannella, AA & Harris, IC 2002, 'Women and racial minorities in the boardroom: How do directors differ?', Journal of management, vol. 28, no. 6, pp. 747-63.

Hillman, AJ, Shropshire, C & Cannella, AA 2007, 'Organizational predictors of women on corporate boards', Academy of Management Journal, vol. 50, no. 4, pp. 941-52.

Hirshleifer, J 1958, 'On the theory of optimal investment decision', The Journal of Political Economy, pp. 329-52.

Hofmann, C 2001, 'Balancing financial and non-financial performance measures', University of Hannover, Koenigsworther Platz, vol. 1, p. 30167.

Hope, KR 2008, Poverty, Livelihoods, and Governance in Africa, Palgrave Macmillan.

Hopt, KJ & Leyens, PC 2004, 'Board models in Europe–recent developments of internal corporate governance structures in Germany, the United Kingdom, France, and Italy', European Company and Financial Law Review, vol. 1, no. 2, pp. 135-68.

Hoshi, T, Kashyap, A & Scharfstein, D 1991, 'Corporate Structure, Liquidity, and Investment - Evidence from Japanese Industrial Groups', Quarterly Journal of Economics, vol. 106, no. 1, pp. 33-60.

Hoskisson, RE, Johnson, RA & Moesel, DD 1994, 'Corporate Divestiture Intensity in Restructuring Firms - Effects of Governance, Strategy, and Performance', Academy of Management Journal, vol. 37, no. 5, pp. 1207-51.

Howell, D 2013, Fundamental statistics for the behavioral sciences, Cengage Learning.

Hoyt, RE & Liebenberg, AP 2011, 'The Value of Enterprise Risk Management', Journal of Risk and Insurance, vol. 78, no. 4, pp. 795-822.

Huffington, A 2003, 'Would things be any different if women ran corporate America', Common Dreams News Center.

Hybels, RC 1995, 'On legitimacy, legitimation, and organizations: A critical review and integrative theoretical model', in Academy of Management Proceedings, vol. 1995, pp. 241-5.

Ibrahim, S & Lloyd, C 2011, 'The association between non-financial performance measures in executive compensation contracts and earnings management', Journal of accounting and public policy, vol. 30, no. 3, pp. 256-74.

Ilmolelian, P 2005, 'The determinants of the Harare Stock Exchange (HSE) market capitalisation'.

Ingram, RW & Albright, TL 2006, Financial Accounting: Information for Decisions: Information for Decisions, Cengage Learning.

Ittner, CD, Larcker, DF & Meyer, MW 2003, 'Subjectivity and the weighting of performance measures: Evidence from a balanced scorecard', Accounting review, vol. 78, no. 3, pp. 725-58.

Jackling, B & Johl, S 2009, 'Board Structure and Firm Performance: Evidence from India's Top Companies', Corporate Governance-an International Review, vol. 17, no. 4, pp. 492-509.

Jensen, MC 1993, 'The Modern Industrial-Revolution, Exit, and the Failure of Internal Control-Systems', Journal of Finance, vol. 48, no. 3, pp. 831-80.

Jensen, MC & Meckling, WJ 1976, 'Theory of the firm: Managerial behavior, agency costs, and ownership structure'.

Jesover, F & Kirkpatrick, G 2005, 'The revised OECD principles of corporate governance and their relevance to non-OECD countries', Corporate Governance: An International Review, vol. 13, no. 2, pp. 127-36.

John, K & Senbet, LW 1998, 'Corporate governance and board effectiveness', Journal of Banking & Finance, vol. 22, no. 4, pp. 371-403.

Johnson, JL, Daily, CM & Ellstrand, AE 1996, 'Boards of directors: A review and research agenda', Journal of management, vol. 22, no. 3, pp. 409-38.

Jonsson, EI 2005, 'The Role Model of the Board: a preliminary study of the roles of Icelandic boards', Corporate Governance-an International Review, vol. 13, no. 5, pp. 710-7.

Kanter, RM 1977, 'Some effects of proportions on group life: Skewed sex ratios and responses to token women', American journal of Sociology, pp. 965-90.

Kaplan 2015, Kaplan financial knowldge bank : Agency theory, viewed 30 October 2015, <http://kfknowledgebank.kaplan.co.uk/KFKB/Wiki%20Pages/Agency%20theory.aspx>.

Kaplan, RS & Norton, DP 1996, The balanced scorecard: translating strategy into action, Harvard Business Press.

Kasaija, PA 2004, 'Regional integration: A political federation of the East African Countries?', African Journal of International Affairs, vol. 7, no. 1-2.

Katto, J, Wanyama, S & Musaali, EM 2014, Corporate Governance in Uganda; An introduction to concepts and principles., vol. 1, Fountain Publishers, Kampala.

Keasey, K & Wright, M 1993, 'Issues in corporate accountability and governance: An editorial', Accounting and business research, vol. 23, no. sup1, pp. 291-303.

Kehoe, WJ 2006, Regional and Global Economic Integration: Implications for Global Business.

Kerandi, AM 2008, 'Governance Agenda for Sub-Saharan Africa: Issues and Challenges', Federal Governance, vol. 5, no. 1, pp. 1-22.

Kerstin, D, Simone, O & Nicole, Z 2014, 'Challenges in implementing enterprise risk management', ACRN Journal of Finance and Risk Perspectives, vol. 3, no. 3, pp. 1-14.

Khan, MJ, Hussain, D & Mehmood, W 2016, 'Why do firms adopt enterprise risk management (ERM)? Empirical evidence from France', Management Decision, vol. 54, no. 8, pp. 1886-907.

Khan, WA & Vieito, JP 2013, 'Ceo gender and firm performance', Journal of Economics and Business, vol. 67, pp. 55-66.

Kibirige, DA 2014, 'Introduction to Corporate Goverance : Concepts and Theories', in J Katto, S Wanyama & EM Musaali (eds), Corporate Governance in Uganda : An introduction to concepts and principles., Fountain Publishers, Kampala, pp. 3-15.

Kiel, GC & Nicholson, GJ 2003, 'Board composition and corporate performance: how the Australian experience informs contrasting theories of corporate governance', Corporate Governance-an International Review, vol. 11, no. 3, pp. 189-205.

Kim, K 2015, 'Revisiting the relationship between financial and environmental performance: Does Granger causality matter?', Journal of Applied Business Research, vol. 31, no. 5, pp. 1861-76.

Kirkpatrick, G 2005, 'The revised OECD principles of corporate governance and their relevance to non-OECD countries', Corporate Governance: An International Review, vol. 13, no. 2, pp. 127-36.

Klein, A 1998, 'Firm Performance and Board Committee Structure 1', The Journal of Law and Economics, vol. 41, no. 1, pp. 275-304.

Knechel, W 2002, 'The role of the independent accountant in effective risk management', Review of Business and Economics, vol. 47, no. 1, pp. 65-86.

Knight, JA 1998, Value based management: Developing a systematic approach to creating shareholder value, McGraw-Hill.

Kolb, RW 2010, Lessons from the financial crisis: Causes, consequences, and our economic future, vol. 12, John Wiley & Sons.

Kondap, N & Singh, N 2011, 'The New Horizon of Corporate Governance and Social Responsibility: A Case Study of Bhoruka Charitable Trust'.

Kondra, AZ & Hinings, CR 1998, 'Organizational diversity and change in institutional theory', Organization Studies, vol. 19, no. 5, pp. 743-67.

Konrad, AM, Kramer, V & Erkut, S 2008, 'Critical mass: The impact of three or more women on corporate boards', Organizational Dynamics, vol. 37, no. 2, pp. 145-64.

Kopczuk, W, Saez, E & Song, J 2010, 'Earnings Inequality and Mobility in the United States: Evidence from Social Security Data since 1937', Quarterly Journal of Economics, vol. 125, no. 1, pp. 91-128.

Kotler, P 2012, Kotler on marketing, Simon and Schuster.

Kremer, S & Nautz, D 2013, 'Causes and consequences of short-term institutional herding', Journal of Banking & Finance, vol. 37, no. 5, pp. 1676-86.

Kwee, Z, Van Den Bosch, FA & Volberda, HW 2011, 'The influence of top management team's corporate governance orientation on strategic renewal trajectories: a longitudinal analysis of Royal Dutch Shell plc, 1907–2004', Journal of Management Studies, vol. 48, no. 5, pp. 984-1014.

Kyereboah-Coleman, A 2007, 'Corporate governance and shareholder value maximization: An African perspective', African Development Review-Revue Africaine De Developpement, vol. 19, no. 2, pp. 350-67.

—— 2008, 'Corporate governance and firm performance in Africa: A dynamic panel data analysis', Journal for Studies in Economics and Econometrics, vol. 32, no. 2, pp. 1-24.

La Porta, R, Lopez-de-Silanes, F, Shleifer, A & Vishny, R 2000, 'Investor protection and corporate governance', Journal of financial economics, vol. 58, no. 1, pp. 3-27.

Laing, D & Weir, CM 1999, 'Governance structures, size and corporate performance in UK firms', Management Decision, vol. 37, no. 5, pp. 457-64.

Lam, J 2000, 'Enterprise-wide risk management and the role of the chief risk officer', white paper, ERisk. com, March, vol. 25.

Latorre, MÁ & Farinós, JE 2015, 'Ethical Behaviour and Operating Performance of Insurance Broker Firms', Journal of International Business and Economics, vol. 3, no. 1, pp. 44-51.

Lease, RC, John, K, Kalay, A, Loewenstein, U & Sarig, OH 1999, 'Dividend Policy:: Its Impact on Firm Value', OUP Catalogue.

Lee, L-E, Marshall, R, Rallis, D & Moscardi, M 2015, 'Women on Boards: Global trends in gender diversity on corporate boards', p. 31, viewed 01 March, <https://www.msci.com/documents/10199/04b6f646-d638-4878-9c61-4eb91748a82b>.

Lemmon, ML & Lins, KV 2003, 'Ownership structure, corporate governance, and firm value: Evidence from the East Asian financial crisis', Journal of Finance, vol. 58, no. 4, pp. 1445-68.

Leng, ACA 2004, 'The impact of corporate governance practices on firms' financial performance: Evidence from Malaysian companies', ASEAN Economic Bulletin, pp. 308-18.

Lerner, D & Oberholzer, CS 2015, Where Women Are On Board: Perspectives from Gender Diverse Boardrooms, viewed 14 April 2016, <https://corpgov.law.harvard.edu/2015/07/31/where-women-are-on-board-perspectives-from-gender-diverse-boardrooms/>.

Lesakova, L 2007, 'Uses and limitations of profitability ratio analysis in managerial practice', in International Conference on Management, Enterprise and Benchmarking, pp. 1-2.

Leung, S, Richardson, G & Jaggi, B 2014, 'Corporate board and board committee independence, firm performance, and family ownership concentration: An analysis based on Hong Kong firms', Journal of Contemporary Accounting & Economics, vol. 10, no. 1, pp. 16-31.

Leventis, S, Jallow, K & Dimitropoulos, P 2012, 'The role of corporate governance in earnings management: experience from US banks', Journal of Applied Accounting Research, vol. 13, no. 2, pp. 161-77.

Levine, DM, Berenson, ML & Stephan, D 1999, Statistics for managers using Microsoft Excel, vol. 660, Prentice Hall Upper Saddle River, NJ.

Li, SL & Tallman, S 2011, 'Mnc Strategies, Exogenous Shocks, and Performance Outcomes', Strategic management journal, vol. 32, no. 10, pp. 1119-27.

Li, X 2014, 'The Sarbanes-Oxley act and cross-listed foreign private issuers', Journal of Accounting & Economics, vol. 58, no. 1, pp. 21-40.

Liebenberg, AP & Hoyt, RE 2003, 'The determinants of enterprise risk management: Evidence from the appointment of chief risk officers', Risk Management and Insurance Review, vol. 6, no. 1, pp. 37-52.

Lins, KV 2003, 'Equity ownership and firm value in emerging markets', Journal of Financial and Quantitative Analysis, vol. 38, no. 1, pp. 159-84.

Lintner, J 1965, 'The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets', The review of economics and statistics, pp. 13-37.

Lipton, M & Lorsch, JW 1992, 'A Modest Proposal for Improved Corporate Governance', Business Lawyer, vol. 48, no. 1, pp. 59-77.

Loyd, DL, Wang, CS, Phillips, KW & Lount, RB 2013, 'Social Category Diversity Promotes Premeeting Elaboration: The Role of Relationship Focus', Organization science, vol. 24, no. 3, pp. 757-72.

Lundqvist, SA 2015, 'Why firms implement risk governance - Stepping beyond traditional risk management to enterprise risk management', Journal of accounting and public policy, vol. 34, no. 5, pp. 441-66.

Lussier, R 2011, Management fundamentals: Concepts, applications, skill development, Cengage Learning.

Lutkepohl, H & Xu, F 2012, 'The role of the log transformation in forecasting economic variables', Empirical Economics, vol. 42, no. 3, pp. 619-38.

Maassen, GF 1999, An international comparison of corporate governance models, vol. 31, Gregory Maassen.

Mafusire, A & Brixiova, Z 2013, 'Macroeconomic shock synchronization in the East African Community', Global Economy Journal, vol. 13, no. 2, pp. 261-80.

Maghanga, M & Quisenberry, W 2015, 'The Role of Uganda Securities Exchange in the Economic Growth of Uganda: An Econometric Analysis', International Journal of Econometrics and Financial Management, vol. 3, no. 3, pp. 131-41.

Mahadeo, JD, Soobaroyen, T & Hanuman, VO 2012, 'Board Composition and Financial Performance: Uncovering the Effects of Diversity in an Emerging Economy', Journal of Business Ethics, vol. 105, no. 3, pp. 375-88.

Major, M & Hopper, T 2004, 'Extending new institutional theory: regulation and activity-based costing in portuguese telecommunications', in Fourth Asia Pacific Interdisciplinary Research in Accounting Conference, Singapore, vol. 4.

Malhotra, NK 2010, Marketing research: An applied orientation, vol. 834, Pearson Education New Jersey.

Malik, M, Wan, DF, Ahmad, MI, Naseem, MA & Rehman, RU 2014, 'Role of board size in corporate governance and firm performance applying pareto approach, is it cultural phenomena?', Journal of Applied Business Research, vol. 30, no. 5, pp. 1395-406.

Mallin, CA 2011, Handbook on international corporate governance: country analyses, Edward Elgar Publishing.

Manab, NA, Kassim, I & Hussin, MR 2010, 'Enterprise-wide risk management (EWRM) practices: Between corporate governance compliance and value', International Review of Business Research Papers, vol. 6, no. 2, pp. 239-52.

Mans-Kemp, N 2014a, Corporate governance and the financial performance of selected johannesburg stock exchange industries, Stellenbosch University, Cape Town.

—— 2014b, 'Corporate governance and the financial performance of selected johannesburg stock exchange industries', Stellenbosch University.

Margolis, JD & Walsh, JP 2001, People and profits?: The search for a link between a company's social and financial performance, Psychology Press.

Masinga, W & Machira, P 2014, East Africa hopes to have regional stock exchange in a year - Experts, viewed 09 December 2014, <http://allafrica.com/stories/201307090331.html>.

Masulis, RW & Mobbs, S 2011, 'Are all inside directors the same? Evidence from the external directorship market', The journal of Finance, vol. 66, no. 3, pp. 823-72.

Matthews, A 2003, Regional integration and food security in developing countries, vol. 45, Food & Agriculture Org.

Mattingly, JE 2004, 'Redefining the corporation: Stakeholder management and organizational wealth', Academy of management review, vol. 29, no. 3, pp. 520-3.

McCann, M & Ackrill, R 2015, 'Managerial and Disciplinary Responses to Abandoned Acquisitions in Bidding Firms: A New Perspective', Corporate Governance-an International Review, vol. 23, no. 5, pp. 402-16.

Mcconnell, JJ & Servaes, H 1990, 'Additional Evidence on Equity Ownership and Corporate Value', Journal of financial economics, vol. 27, no. 2, pp. 595-612.

McGee, RW & Bose, S 2009, 'Corporate governance in transition economies: a comparative study of Armenia, Azerbaijan and Georgia', International Journal of Economic Policy in Emerging Economies, vol. 2, no. 3, pp. 228-40.

McGrath, SK & Whitty, SJ 2015, 'Redefining governance: from confusion to certainty and clarity', International Journal of Managing Projects in Business, vol. 8, no. 4, pp. 755-87.

Melero, E 2011, 'Are workplaces with many women in management run differently?', Journal of Business Research, vol. 64, no. 4, pp. 385-93.

Melyoki, LL 2005, Determinants of effective corporate governance in Tanzania, University of Twente.

Mendelow, A 1991, 'Stakeholder mapping', in Proceedings of the 2nd International Conference on Information Systems.

Merchant, KA 1998, Modern management control systems: text and cases, Prentice Hall Upper Saddle River, NJ.

Meyer, E & de Wet, JHVH 2013, 'The impact of board structure on the financial performance of listed South African companies', Corporate Board: Role, Duties and Composition, vol. 9, no. 3, pp. 19-31.

Miller, KD & Waller, HG 2003, 'Scenarios, real options and integrated risk management', Long range planning, vol. 36, no. 1, pp. 93-107.

Miller, MH & Modigliani, F 1958, 'The cost of capital, corporation finance and the theory of investment', The American economic review, pp. 261-97.

—— 1961, 'Dividend policy, growth, and the valuation of shares', the Journal of Business, vol. 34, no. 4, pp. 411-33.

Miller, T & del Carmen Triana, M 2009, 'Demographic diversity in the boardroom: Mediators of the board diversity–firm performance relationship', Journal of Management Studies, vol. 46, no. 5, pp. 755-86.

Miller, T & Triana, MD 2009, 'Demographic Diversity in the Boardroom: Mediators of the Board Diversity-Firm Performance Relationship', Journal of Management Studies, vol. 46, no. 5, pp. 755-86.

Mirus, R & Rylska, N 2001, 'Economic Integration: Free Trade Areas vs Customs Unions', Edmonton, Canada: Western Centre for Economic Research.

Moeller, RR 2007, COSO enterprise risk management: understanding the new integrated ERM framework, John Wiley & Sons.

Moerland, PW 1995, 'Alternative disciplinary mechanisms in different corporate systems', Journal of Economic Behavior & Organization, vol. 26, no. 1, pp. 17-34.

Mohamad Ariff, A, Kamil Ibrahim, M & Othman, R 2007, 'Determinants of firm level governance: Malaysian evidence', Corporate Governance: The international journal of business in society, vol. 7, no. 5, pp. 562-73.

Moldasheva, G 2015, 'Corporate governance practices in emerging markets: Evidence from Kazakhstan financial system', Corporate Ownership and Control, vol. 13, no. 1CONT8, pp. 889-906.

Monette, D, Sullivan, T & DeJong, C 2013, Applied social research: A tool for the human services, Cengage Learning.

Montgomery, DC, Peck, EA & Vining, GG 2015, Introduction to linear regression analysis, John Wiley & Sons.

Mooraj, S, Oyon, D & Hostettler, D 1999, 'The balanced scorecard: a necessary good or an unnecessary evil?', European Management Journal, vol. 17, no. 5, pp. 481-91.

Morck, R & Nakamura, M 1999, 'Banks and corporate control in Japan', Journal of Finance, vol. 54, no. 1, pp. 319-39.

Morekwa Nyamongo, E & Temesgen, K 2013, 'The effect of governance on performance of commercial banks in Kenya: a panel study', Corporate Governance: The international journal of business in society, vol. 13, no. 3, pp. 236-48.

Moroney, R, Campbell, F, Hamilton, J & Warren, V 2014, Auditing: a practical approach, Wiley Global Education.

Morris, N 2009, 'Harriet Harman:'If only it had been Lehman Sisters'', The Independent, vol. 4, pp. 4-5.

Mulili, M & Wong, P 2010, 'Corporate Governance in Developing Countries. The Case for Kenya', International Journal of Business Administration, vol. 2, no. 1.

Mulsow, R 2011, 'The Relationship between Project-Portfolio Success and multi-dimensional Business Success'.

Munisi, G & Randoy, T 2013, 'Corporate governance and company performance across Sub-Saharan African countries', Journal of Economics and Business, vol. 70, pp. 92-110.

Muriithi, P 2009, 'Corporate Governance', KASNEB Newsline, no. 1, January to March, p. 3.

Muth, M & Donaldson, L 1998, 'Stewardship theory and board structure: A contingency approach', Corporate Governance: An International Review, vol. 6, no. 1, pp. 5-28.

Mwanzia Mulili, B 2014, 'Corporate governance in Kenya's public universities', Journal of Applied Research in Higher Education, vol. 6, no. 2, pp. 342-57.

Mwasha, ON 2011, '„The Benefits of Regional Economic Integration for Developing Countries in Africa‟: A Case of East African Community (EAC)'.

Ndiweni, E 2008, 'Towards a Theoretical Framework of Corporate Governance: Perspectives from Southern Africa', Corpoate Governance in Less Developed and Emerging Economies, vol. 8, pp. 335-57.

Neely, A, Kennerley, M & Adams, C 2007, Performance measurement frameworks: a review, Cambridge University Press, Cambridge.

Nguyen, P & Rahman, N 2015, 'Which governance characteristics affect the incidence of divestitures in Australia?', Australian Journal of management, vol. 40, no. 2, pp. 351-74.

Nguyen, P, Rahman, N, Tong, A & Zhao, R 2015, 'Board size and firm value: evidence from Australia', Journal of Management & Governance, vol. 20, no. 4, pp. 851-73.

Nguyen, P, Rahman, N, Tong, A & Zhao, R 2016, 'Board size and firm value: evidence from Australia', Journal of Management and Governance, vol. 20, no. 4, pp. 851-73.

Ngwenya, S & Khumalo, M 2012, 'CEO compensation and performance of state owned enterprises in South Africa', Corporate Ownership and Control, vol. 10, no. 1 A, pp. 97-109.

Niessen, A & Ruenzi, S 2006, 'Sex matters: Gender and mutual funds', manuscript, University of Cologne.

Nocco, BW & Stulz, RM 2006, 'Enterprise risk management: theory and practice', Journal of applied corporate finance, vol. 18, no. 4, pp. 8-20.

Northcott, D & Smith, J 2011, 'Managing performance at the top: a balanced scorecard for boards of directors', Journal of Accounting & Organizational Change, vol. 7, no. 1, pp. 33-56.

NSE 2014, Nairobi Stock Exchange Listed companies, viewed 15 SDecember 2014, <www.nse.co.ke/listed-companies >.

—— 2015, History of NSE viewed 10 October 2015, <https://www.nse.co.ke/nse/history-of-nse.html>.

Nyagah, BK 2014, 'The effect of enterprise risk management on financial performance of pension fund management firms in Kenya', University of Nairobi.

Nyasha, S & Odhiambo, N 2013, 'The Dynamics Of Stock Market Development In Kenya', Journal of Applied Business Research (JABR), vol. 30, no. 1, pp. 73-82.

O'Brien, RM 2007, 'A caution regarding rules of thumb for variance inflation factors', Quality & Quantity, vol. 41, no. 5, pp. 673-90.

OECD 1999, OECD Principles of Corporate Governance, viewed 18 December 2014, <http://www.ecgi.org/codes/code.php?code_id=89>.

—— 2004, OECD Principles of Corporate Governance, viewed 18 December 2014 2014, <http://www.ecgi.org/codes/code.php?code_id=87>.

—— 2015, G20/OECD Principles of Corporate Governance viewed 20 October 2015, <http://www.ecgi.org/codes/all_codes.php>.

Okeahalam, CC 2004, 'Corporate governance and disclosure in Africa: issues and challenges', Journal of Financial Regulation and Compliance, vol. 12, no. 4, pp. 359-70.

Okiro, K 2014, 'Corporate governance, capital structure, regulatory compliance and performance of firms listed at the East African community securities exchange', University of Nairobi.

Okiro, K, Aduda, J & Omoro, N 2015, 'The effect of corporate governance and capital structure on performance of firms listed at the east african community securities exchange', European Scientific Journal, vol. 11, no. 7.

Ongore, VO & K'Obonyo, PO 2011, 'Effects of selected corporate governance characteristics on firm performance: Empirical evidence from Kenya', International Journal of Economics and Financial Issues, vol. 1, no. 3, pp. 99-122.

Osborne, JW 2010, 'Improving your data transformations: Applying the Box-Cox transformation', Practical Assessment, Research & Evaluation, vol. 15, no. 12, pp. 1-9.

Otley, D 1999, 'Performance management: a framework for management control systems research', Management Accounting Research, vol. 10, no. 4, pp. 363-82.

Pagach, D & Warr, R 2011, 'The Characteristics of Firms That Hire Chief Risk Officers', Journal of Risk and Insurance, vol. 78, no. 1, pp. 185-211.

Pape, JC 1999, Commercial lending in different corporate governance systems, University of Twente Press.

Park, HM 2011, 'Practical guides to panel data modeling: a step-by-step analysis using stata', Public Management and Policy Analysis Program, Graduate School of International Relations, International University of Japan.

Pathan, S, Skully, M & Wickramanayake, J 2007, 'Board size, independence and performance: an analysis of Thai banks', Asia-Pacific Financial Markets, vol. 14, no. 3, pp. 211-27.

Patterson, M & Reiffen, D 1990, 'The Effect of the Bubble Act on the Market for Joint Stock Shares', Journal of Economic History, vol. 50, no. 1, pp. 163-71.

Peters, G & Bagshaw, K 2014, 'Corporate Governance Mechanisms and Financial Performance of Listed Firms in Nigeria: A Content Analysis', Global Journal of Contemporary Research in Accounting, Auditing and Business Ethics (GJCRA), vol. 1, no. 2, pp. 103-28.

Peterson, CA & Philpot, J 2007, 'Women's roles on US Fortune 500 boards: Director expertise and committee memberships', Journal of Business Ethics, vol. 72, no. 2, pp. 177-96.

Petrovic, J 2008, 'Unlocking the role of a board director: a review of the literature', Management Decision, vol. 46, no. 9, pp. 1373-92.

Pfeffer, J & Salancik, GR 2003, The external control of organizations: A resource dependence perspective, Stanford University Press.

Phipps, SA & Burton, PS 1998, 'What's mine is yours? The influence of male and female incomes on patterns of household expenditure', Economica, vol. 65, no. 260, pp. 599-613.

Porta, R, Lopez de Silanes, F & Shleifer, A 1999, 'Corporate ownership around the world', The journal of Finance, vol. 54, no. 2, pp. 471-517.

Porter, ME 2008, Competitive advantage: Creating and sustaining superior performance, Simon and Schuster.

Pound, J 1993, 'The rise of the political model of corporate governance and corporate control', NYUL Rev., vol. 68, p. 1003.

Powell, W 2003, 'Neither market nor hierarchy', The sociology of organizations: classic, contemporary, and critical readings, vol. 315, pp. 104-17.

Prinsloo, C 2013, The East African Community - the conducive environment, successes & challenges for regional integration., <http://www.afdb.org/en/aec-2013/papers/paper/the-east-african-community-the-conducive-environment-successes-challenges-for-regional-inte >.

Prowse, SD 1996, 'Corporate finance in international perspective: Legal and regulatory influences on financial system development', Economic and Financial Policy Review, no. Q III, pp. 2-15.

Punnett, BJ & Clarke, LN 2017, 'Women and Leadership in Africa', in LEAD: Leadership Effectiveness in Africa and the African Diaspora, Springer, pp. 217-36.

Quon, TK, Zeghal, D & Maingot, M 2012, 'Enterprise risk management and business performance during the financial and economic crises', Problems and Perspectives in Management, vol. 10, no. 3, pp. 95-103.

Rabelo, FM & Vasconcelos, FC 2002, 'Corporate governance in Brazil', Journal of Business Ethics, vol. 37, no. 3, pp. 321-35.

Radebaugh, LH, Sullivan, DP & Daniels, JD 2015, International business: Environments and operations, Pearson Education.

Ramanathan, T 2009, The role of organisational change management in offshore outsourcing of information technology services: Qualitative case studies from a multinational pharmaceutical company, Universal-Publishers.

Randoy, T, Thomsen, S & Oxelheim, L 2006, 'A Nordic perspective on corporate board diversity', Age, vol. 390, no. 0.5428.

Rashid, A, De Zoysa, A, Lodh, S & Rudkin, K 2010, 'Board composition and firm performance: Evidence from Bangladesh', Australasian Accounting Business & Finance Journal, vol. 4, no. 1, p. 76.

Rashid, K 2008, 'A comparison of corporate governance and firm performance in developing (Malaysia) and developed (Australia) financial markets', Victoria University.

Razali, NM & Wah, YB 2011, 'Power comparisons of shapiro-wilk, kolmogorov-smirnov, lilliefors and anderson-darling tests', Journal of statistical modeling and analytics, vol. 2, no. 1, pp. 21-33.

Reguera-Alvarado, N, de Fuentes, P & Laffarga, J 2015, 'Does Board Gender Diversity Influence Financial Performance? Evidence from Spain', Journal of Business Ethics, pp. 1-14.

Renders, A, Gaeremynck, A & Sercu, P 2010, 'Corporate-Governance Ratings and Company Performance: A Cross-European Study', Corporate Governance: An International Review, vol. 18, no. 2, pp. 87-106.

Renn, O & Walker, K 2008, 'Lessons learned: A re-assessment of the IRGC framework on risk governance', in Global risk governance, Springer, pp. 331-67.

Rezaee, Z 2008, Corporate governance and ethics, John Wiley & Sons.

Rhoades, DL, Rechner, PL & Sundaramurthy, C 2000, 'Board composition and financial performance: A meta-analysis of the influence of outside directors', Journal of Managerial Issues, pp. 76-91.

Richard, PJ, Devinney, TM, Yip, GS & Johnson, G 2009, 'Measuring organizational performance: Towards methodological best practice', Journal of Management.

Ritzer, G 2004, Encyclopedia of social theory, Sage Publications.

Rizzi, JV 2008, 'Behavioral bias of the financial crisis', Journal of Applied Finance (Formerly Financial Practice and Education), vol. 18, no. 2.

Roberts, S 2008, 'Transform your data', Nutrition, vol. 24, no. 5, pp. 492-4.

Rodrigue, J-P 2016, The geography of transport systems, viewed 15 March 2016, <https://people.hofstra.edu/geotrans/eng/ch5en/conc5en/img/economicintegration.png>.

Rodríguez-Fernández, M 2015, 'Company financial performance: Does board size matter? Case of the EUROSTOXX50 index/Rendimiento financiero de la empresa:¿ Importa el tamaño del consejo de administración? Caso del índice EUROSTOXX50', Cuadernos de Gestión, vol. 15, no. 2, p. 15.

Roe, MJ 2003, Political determinants of corporate governance: Political context, corporate impact, Oxford University Press on Demand.

Rose, C 2007, 'Does female board representation influence firm performance? The Danish evidence', Corporate Governance: An International Review, vol. 15, no. 2, pp. 404-13.

Rosen, D & Zenios, SA 2006, 'Enterprise-wide asset and liability management: issues, institutions, and models', Handbook of Asset and Liability Management: Theory and Methodology, vol. 1, no. 1.

Rossi, M, Nerino, M & Capasso, A 2015, 'Corporate governance and financial performance of italian listed firms. The results of an empirical research', Corporate Ownership and Control, vol. 12, no. 2 CONT5, pp. 628-43.

RSE 2015a, Background: Rwanda stock exchange (RSE), viewed 15 October 2015, <http://www.rse.rw/Background>.

—— 2015b, Rwanda Stock Exchange, listed Securities viewed 15 october 2015, <http://www.rse.rw/listed-securities/>.

Rubach, MJ & Sebora, TC 1998, 'Comparative corporate governance: Competitive implications of an emerging convergence', Journal of World Business, vol. 33, no. 2, pp. 167-84.

Ruparelia, RV 2016, 'The evolution of Corporate Governance and consequent Domestication in Kenya'.

Sadgrove, K 2016, The complete guide to business risk management, Routledge.

Said, AA, HassabElnaby, HR & Wier, B 2003, 'An empirical investigation of the performance consequences of nonfinancial measures', Journal of Management Accounting Research, vol. 15, no. 1, pp. 193-223.

Salvatore, D 2004, International economics, Willey International Edition, USA.

Saunders, MN 2011, Research methods for business students, 5/e, Pearson Education India.

Schellenger, MH, Wood, DD & Tashakori, A 1989, 'Board of Director Composition, Shareholder Wealth, and Dividend Policy', Journal of management, vol. 15, no. 3, pp. 457-67.

Schiff, WM & Winters, LA 2003, Regional integration and development, World Bank Publications.

Schnatterly, K & Johnson, SG 2014, 'Independent boards and the institutional investors that prefer them: Drivers of institutional investor heterogeneity in governance preferences', Strategic management journal, vol. 35, no. 10, pp. 1552-63.

Schneider, PJ 2013, 'The Managerial Power Theory of Executive Compensation', Journal of Financial Service Professionals, vol. 67, no. 3, pp. 17-22.

Scott, J 1997, Corporate business and capitalist classes, OUP Oxford.

Scott, WR 2005, 'Institutional theory: Contributing to a theoretical research program', Great minds in management: The process of theory development, pp. 460-85.

Shah, R, Haldar, A & Rao, SVDN 2014, 'Economic value added: A financial flexibility tool', Corporate Ownership and Control, vol. 12, no. 1CONT8, pp. 703-8.

Shapiro, SS & Wilk, MB 1965, 'An analysis of variance test for normality (complete samples)', Biometrika, vol. 52, no. 3/4, pp. 591-611.

Sharpe, WF 1964, 'Capital asset prices: A theory of market equilibrium under conditions of risk*', The journal of Finance, vol. 19, no. 3, pp. 425-42.

Shleifer, A & Vishny, RW 1997, 'A survey of corporate governance', Journal of Finance, vol. 52, no. 2, pp. 737-83.

Short, H & Keasey, K 1999, 'Managerial Ownership and the Performance of Firms: Evidence from the UK', Journal of Corporate Finance, vol. 5, no. 1, pp. 79-101.

Siddiqui, SS 2015, 'The association between corporate governance and firm performance – a meta-analysis', International Journal of Accounting & Information Management, vol. 23, no. 3, pp. 218-37.

Singh, V, Terjesen, S & Vinnicombe, S 2008, 'Newly appointed directors in the boardroom:: How do women and men differ?', European Management Journal, vol. 26, no. 1, pp. 48-58.

Siwadi, P, Miruka, C & Ogutu, FA 2015, 'The impact of corporate governance on firm performance in the Zimbabwean manufacturing sector', Corporate Ownership and Control, vol. 12, no. 4Cont7, pp. 779-90.

Sobel, PJ & Reding, KF 2004, 'Aligning corporate governance with enterprise risk management', Management Accounting Quarterly, vol. 5, no. 2, p. 29.

Soliman, MM, Ragab, AA & Eldin, MB 2014, 'Corporate governance structure and firm' financial performance: Evidences from Egypt', Corporate Board: Role, Duties and Composition, vol. 10, no. 1, pp. 49-59.

Solomon, J 2007, Corporate governance and accountability, John Wiley & Sons.

Soltani, B 2014, 'The Anatomy of Corporate Fraud: A Comparative Analysis of High Profile American and European Corporate Scandals', Journal of Business Ethics, vol. 120, no. 2, pp. 251-74.

Spira, LF & Page, M 2003, 'Risk management: the reinvention of internal control and the changing role of internal audit', Accounting, Auditing & Accountability Journal, vol. 16, no. 4, pp. 640-61.

Suchman, MC 1995, 'Managing Legitimacy - Strategic and Institutional Approaches', Academy of management review, vol. 20, no. 3, pp. 571-610.

Sullivan, JD 2009, 'The moral compass of companies: Business ethics and corporate governance as anti-corruption tools', in.

Tabachnick, BG & Fidell, LS 2006, Using multivariate statistics, 5 edn, Pearson.

Tabachnick, BG, Fidell, LS & Osterlind, SJ 2001, Using multivariate statistics, 4th edn, Needham Heights, MA: Allyn
& Bacon.

Tang, H-W & Chang, C-C 2014, 'Does corporate governance affect the relationship between earnings management and firm performance? An endogenous switching regression model', Review of Quantitative Finance and Accounting, vol. 45, no. 1, pp. 33-58.

Thalassinos, JE & Liapis, K 2011, 'Measuring a bank's financial health: A case study for the Greek banking sector', European Research Studies Journal, vol. 14, no. 3, pp. 135-72.

Tilling, MV 2004, 'Some thoughts on legitimacy theory in social and environmental accounting', Social and Environmental Accountability Journal, vol. 24, no. 2, pp. 3-7.

Tobin, J 1984, 'A mean-variance approach to fundamental valuations', The Journal of Portfolio Management, vol. 11, no. 1, pp. 26-32.

Tosi, HL & Gomezmejia, LR 1994, 'Ceo Compensation Monitoring and Firm Performance', Academy of Management Journal, vol. 37, no. 4, pp. 1002-16.

Transparency International 2014, Corruption Perceptions Index 2014, viewed 13 March 2015, <https://www.transparency.org/cpi2014>.

Tricker, B & Tricker, RI 2008, Corporate Governance: Principles, policies and practices, Oxford University press, Oxford.

Tsamenyi, M, Enninful-Adu, E & Onumah, J 2007, 'Disclosure and corporate governance in developing countries: Evidence from Ghana', Managerial Auditing Journal, vol. 22, no. 3, pp. 319-34.

Tshipa, J 2015, 'The south African code of corporate governance. The relationship between compliance and financial performance: Evidence from south African publicly listed firms', Corporate Ownership and Control, vol. 12, no. 2, pp. 149-69.

Tsoutsoura, M 2004, 'Corporate social responsibility and financial performance', center for responsible business.

Tuan, LT 2014, 'From corporate governance to balanced performance measurement', Knowledge Management Research & Practice, vol. 12, no. 1, pp. 12-28.

USE 2015, The Background of the Uganda Securities Exchange (USE), viewed 10, October 2015, <https://www.use.or.ug/content/background>.
Vandegrift, D & Brown, P 2005, 'Gender differences in the use of high-variance strategies in tournament competition', The Journal of Socio-Economics, vol. 34, no. 6, pp. 834-49.

Veal, AJ 2005, Business research methods : a managerial approach / A.J. Veal, South Melbourne : Pearson Addison Wesley, 2005.
2nd ed.

Wachudi, EJ & Mboya, J 2012, 'Effect of board gender diversity on the performance of commercial banks in kenya', European Scientific Journal, vol. 8.

Waduge, DSLCS 2011, 'Governance and performance: an empirical study of Australian universities', Victoria University.

Wallace, RO 1990, 'Accounting in developing countries: A review of the literature', Research in Third World Accounting, vol. 1, no. 1, pp. 3-54.

Wang, DC 2006, 'Founding family ownership and earnings quality', Journal of accounting research, vol. 44, no. 3, pp. 619-56.

Wanyama, DW & Olweny, T 2013, 'Effects of Corporate Governance on Financial Performance of Listed Insurance Firms in Kenya', Public policy and administration research, vol. 3, no. 4, pp. 96-120.

Wanyama, S, Burton, B & Helliar, C 2009, 'Frameworks Underpinning Corporate Governance: Evidence on Ugandan Perceptions', Corporate Governance-an International Review, vol. 17, no. 2, pp. 159-75.

Washington, SP, Karlaftis, MG & Mannering, F 2010, Statistical and econometric methods for transportation data analysis, CRC press.

Watson, PK & Teelucksingh, SS 2002, A practical introduction to econometric methods: Classical and modern, University of West Indies Press.

Waweru, N 2014, 'Determinants of quality corporate governance in Sub-Saharan Africa', Managerial Auditing Journal, vol. 29, no. 5, pp. 455-85.

Waweru, NM, Kamau, RG & Uliana, E 2011, 'Audit committees and corporate governance in a developing country', International Journal of Accounting, Auditing and Performance Evaluation, vol. 7, no. 4, p. 337.

Waweru, NM & Uliana, E 2005, 'Predictors of management accounting change in South Africa: Evidence from five retail companies', South African Journal of Accounting Research, vol. 19, no. 1, pp. 37-71.

Weber, Y, Tarba, S, Stahl, G & Rozen Bachar, Z 2012, 'Ingenuity in international mergers and acquisitions: A test of new integration approach paradigm', Handbook of research on mergers and acquisitions. Cheltenham: Edward Elgar.

Weimer, J & Pape, J 2000, 'Inside Western systems of corporate governance', Executive Talent, vol. 1, no. 3.

Weir, C, Laing, D & McKnight, PJ 2002, 'Internal and external governance mechanisms: their impact on the performance of large UK public companies', Journal of Business Finance & Accounting, vol. 29, no. 5-6, pp. 579-611.

West, A 2006, 'Theorising South Africa's corporate governance', Journal of Business Ethics, vol. 68, no. 4, pp. 433-48.

Wild, JJ 1994, 'Managerial accountability to shareholders: Audit committees and the explanatory power of earnings for returns', The British Accounting Review, vol. 26, no. 4, pp. 353-74.

Williamson, OE 1985, 'Assessing contract', Journal of Law, Economics, & Organization, vol. 1, no. 1, pp. 177-208.

—— 1988, 'Corporate finance and corporate governance', The journal of Finance, vol. 43, no. 3, pp. 567-91.

Windsor, D 2009, 'Tightening corporate governance', Journal of International Management, vol. 15, no. 3, pp. 306-16.

Woods, M 2007, 'Linking risk management to strategic controls: a case study of Tesco plc', International Journal of Risk Assessment and Management, vol. 7, no. 8, pp. 1074-88.

Xu, XN & Wang, Y 1999, 'Ownership structure and corporate governance in Chinese stock companies', China Economic Review, vol. 10, no. 1, pp. 75-98.

Yabara, M 2012, 'Capital market integration: progress ahead of the east african community monetary union', IMF Working Paper, no. 12/18.

Yartey, CA & Adjasi, CK 2007, Stock market development in Sub-Saharan Africa: Critical issues and challenges, International Monetary Fund.

Yermack, D 1996, 'Higher market valuation of companies with a small board of directors', Journal of financial economics, vol. 40, no. 2, pp. 185-211.

Youssef, A & Bayoumi, M 2015, 'Investigating the relationship between corporate governance and banks' financial performance: Egypt case', Corporate Ownership and Control, vol. 13, no. 1CONT10, pp. 817-30.

Zagorchev, A & Gao, L 2015, 'Corporate governance and performance of financial institutions', Journal of Economics and Business, vol. 82, pp. 17-41.

Zahra, SA & Pearce, JA 1989, 'Boards of Directors and Corporate Financial Performance - a Review and Integrative Model', Journal of management, vol. 15, no. 2, pp. 291-334.

Zeitoun, H & Pamini, P 2015, 'Corporate Ownership Structure and Top Executives' Prosocial Preferences: The Role Of Relational and External Blockholders', Corporate Governance-an International Review, vol. 23, no. 6, pp. 489-503.

Zheka, V 2006, 'Does corporate governance causally predict firm performance? Panel data and instrumental variables evidence'.

Zikmund, W, Babin, B, Carr, J & Griffin, M 2012, Business research methods, Cengage Learning.

	Company name	Country	Primary business
	Appendix A: EAC listed companies		
	Company name	Country	Primary business
1	Athi River Mining	Kenya	Mineral extraction, manufacture and trade of minerals, chemicals, cement
2	B.A.T Uganda Ltd.	Uganda	Manufacture, marketing and distribution of tobacco products
3	Bamburi Cement Ltd	Kenya	Manufacture and trade of cement and cement-related products
4	Bank of Baroda (UG) Ltd	Uganda	Provision of banking services
5	Barclays Bank of Kenya Ltd	Kenya	Provision of banking services
6	Car And General Kenya Ltd	Kenya	Sales, service and spares of automotive and engineering products
7	Carbacid Investments Plc	Kenya	Manufacture and sale of industrial gases principally in Kenya
8	Centum Investment Company Plc	Kenya	Provision of management consulting support services
9	CFC Stanbic Holdings Ltd	Kenya	Commercial banking activities
10	Crown Paints Kenya Ltd	Kenya	Manufacture and distribution of paint
11	DFCU Ltd	Uganda	Commercial banking activities
12	East African Cables Ltd	Kenya	Manufacture and distribution of cables
13	Eveready East Africa Plc	Kenya	Manufacture and trade of batteries and personal grooming products
14	Express Kenya Ltd	Kenya	Clearing and forwarding services, warehousing and logistics services
15	Jubilee Holdings Ltd	Kenya	Provision of insurance products and services
16	Kakuzi Ltd	Kenya	Agricultural, production of food ingredients and other related products
17	Kapchorua Tea CO. Ltd	Kenya	Engaged in the operation of grocery store
18	KCB Group Ltd	Kenya	Provision of banking products and services
19	Kenolkobil Ltd	Kenya	Petroleum, lubricant, and associated fuel products
20	Kenya Airways Plc	Kenya	Provides passenger and cargo carriage services by air
21	Kenya Electricity Generating ltd	Kenya	Generation, transmission and distribution of electric power in Kenya
22	Kenya Power & Lighting Ltd	Kenya	Transmission, distribution, and retail of electricity throughout Kenya

23	Kenya Reinsurance Corp Ltd	Kenya	Provision of insurance and reinsurance services
24	Nation Media Group Ltd	Kenya	Newspapers printing, distribution, radio and television broadcasting
25	National Bank of Kenya Ltd	Kenya	Commercial bank
26	National Credit Industries	Kenya	Provision of management consulting support services
27	New Vision Ltd	Uganda	Printing and publishing of newspapers and magazines
28	REA Vipingo Plantations Ltd	Kenya	Cultivation, manufacture, spinning, and export of sisal products
29	Sameer Africa Ltd	Kenya	Manufacture of tires, tubes, flaps and tire mounting grease
30	Sasini Ltd	Kenya	Tea and coffee, property management, forestry, dairy operations, and breeding of beef cattle and horticulture
31	Stanbic Holdings Plc	Kenya	Provision of banking, insurance, financial services
32	Standard Chartered Bank Kenya	Kenya	Provision of various banking products and services
33	Swissport Tanzania Plc	Tanzania	Provision of aviation services
34	Tanga Cement CO. Ltd.	Tanzania	Manufacture of cement and other concrete products
35	Tanzania Breweries Ltd.	Tanzania	Production, marketing and distribution of beer and alcoholic beverages
36	Tanzania Cigarette CO. Ltd	Tanzania	Manufacture, marketing and distribution of tobacco products
37	Tanzania Portland Cement Ltd.	Tanzania	Manufacture and supply of Portland cement
38	Tatepa Ltd	Tanzania	Production and wholesale of tea
39	The Standard Group Ltd	Kenya	Publisher of newspaper, periodical, book and database
40	TOL Gases Ltd	Tanzania	Design, manufacture, and wholesale supply of safe and high quality industrial gas and welding products plus medical gas equipment
41	Total Kenya Ltd	Kenya	Production and marketing of petroleum products in Kenya
42	Uganda Clays Ltd	Uganda	Manufacture and market of building and roofing materials

```
                        LnPER 2008 / 2009
Run MATRIX procedure:
HC Method
Criterion Variable
Model Fit:
    R-sq      F     df1    df2      p
   .1834   1.4186   6.0000 30.0000    .2402
Heteroscedasticity-Consistent Regression Results
       Coeff    SE(HC)     t    P>|t|
Constant  3.9210   1.1839   3.3119    .0024
GB       .0031    .0142    .2196    .8277
BI       .0035    .0075    .4729    .6397
RM       .2685    .3024    .8880    .3816
BS      -.0959    .0762  -1.2575    .2183
LnTA    -.1612    .1122  -1.4366    .1612
LnMC     .1988    .1161   1.7112    .0974
Covariance Matrix of Parameter Estimates
       Constant     GB     BI     RM     BS     TA     MC
Constant  1.4017   -.0043  -.0052   .1902   .0337  -.1182   .0376
GB      -.0043    .0002   .0001  -.0019  -.0006   .0001   .0004
BI      -.0052    .0001   .0001  -.0012  -.0003   .0002   .0001
RM       .1902   -.0019  -.0012   .0914   .0120  -.0131  -.0123
BS       .0337   -.0006  -.0003   .0120   .0058  -.0031  -.0036
LnTA    -.1182    .0001   .0002  -.0131  -.0031   .0126  -.0062
LnMC     .0376    .0004   .0001  -.0123  -.0036  -.0062   .0135
Setwise Hypothesis Test
     F     df1    df2      p
   2.9282   1.0000 30.0000    .0974
------ END MATRIX -----
```

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                                    ROA 2008 / 2009
Run MATRIX procedure:
HC Method
Criterion Variable
Model Fit:
    R-sq     F     df1     df2      p
   .2960   1.6809  6.0000  30.0000   .1601
Heteroscedasticity-Consistent Regression Results
       Coeff    SE(HC)     t    P>|t|
Constant 60.8430  9.9890   6.0910   .0000
GB      -.0863   .0620  -1.3922   .1741
BI      -.0720   .0425  -1.6925   .1009
RM      -.8475  1.8041   -.4697   .6419
BS       .8547   .4826   1.7712   .0867
LnTA    -2.2914   .9990  -2.2937   .0290
LnMC    1.7231   .9920   1.7371   .0926
Covariance Matrix of Parameter Estimates
        Constant     GB     BI     RM     BS     TA     MC
Constant 99.7807   -.1331   -.1911   6.2451   1.0034  -9.5859   6.3896
GB       -.1331   .0038   .0002   -.0348   -.0087   .0108   .0001
BI       -.1911   .0002   .0018   -.0065   -.0135   .0153   -.0040
RM       6.2451   -.0348   -.0065   3.2548   .1827   -.5489   -.1886
BS       1.0034   -.0087   -.0135   .1827   .2329   -.1226   -.1108
LnTA    -9.5859   .0108   .0153   -.5489   -.1226   .9980   -.7255
LnMC    6.3896   .0001   -.0040   -.1886   -.1108   -.7255   .9840
Setwise Hypothesis Test
    F     df1     df2      p
   3.0174  1.0000  30.0000   .0926
------ END MATRIX -----
```

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                              ROE 2008 / 2009
Run MATRIX procedure:
HC Method
Criterion Variable
 ROE
Model Fit:
    R-sq     F     df1     df2      p
   .2121   1.9820   6.0000  30.0000   .0997


Heteroscedasticity-Consistent Regression Results
        Coeff    SE(HC)      t    P>|t|
Constant  62.2231  21.2827   2.9236   .0065
GB        .0447    .1805    .2475    .8062
BI       -.2454    .1186   -2.0691    .0473
RM        .4244   4.1453    .1024    .9191
BS       1.4667    .9176   1.5984    .1204
LnTA     -1.9308   2.0789   -.9287    .3604
LnMC      1.9474   1.7992   1.0824    .2877
Covariance Matrix of Parameter Estimates
        Constant     GB      BI      RM      BS      TA      MC
Constant  452.9530   -.0223  -1.0724  39.3755   1.8057  -37.9260  18.2268
GB       -.0223    .0326    .0030   -.1326   -.0124   -.0221   -.0416
BI       -1.0724    .0030    .0141   -.0055   -.0338    .0071    .0453
RM        39.3755   -.1326   -.0055  17.1837   -.4696  -3.5069    .9669
BS        1.8057   -.0124   -.0338   -.4696    .8420   -.4566   -.1694
LnTA     -37.9260   -.0221    .0071  -3.5069   -.4566   4.3218  -2.6767
LnMC      18.2268   -.0416    .0453    .9669   -.1694  -2.6767   3.2370
Setwise Hypothesis Test
     F     df1     df2      p
   1.1715   1.0000  30.0000   .2877
------ END MATRIX -----
```

```
                        LnTBQ 2008 / 2009
Run MATRIX procedure:
HC Method
Criterion Variable
LnTBQ
Model Fit:
    R-sq      F     df1     df2       p
   .2088   1.3368   6.0000  30.0000   .2719
Heteroscedasticity-Consistent Regression Results
       Coeff    SE(HC)      t    P>|t|
Constant   2.1285   1.5801   1.3470   .1881
GB       -.0038    .0147   -.2586   .7977
BI       -.0106    .0079  -1.3306   .1933
RM        .0049    .3733    .0131   .9896
BS        .0979    .0803   1.2181   .2327
TA       -.3321    .1448  -2.2936   .0290
MC        .2676    .1754   1.5256   .1376
Covariance Matrix of Parameter Estimates
        Constant      GB      BI     RM     BS     TA     MC
Constant   2.4967   -.0050  -.0075   .2473   .0053  -.2175   .1727
GB       -.0050    .0002   .0001  -.0025  -.0005   .0002  -.0001
BI       -.0075    .0001   .0001  -.0015  -.0004   .0005  -.0002
RM        .2473   -.0025  -.0015   .1394   .0122  -.0147  -.0167
BS        .0053   -.0005  -.0004   .0122   .0065  -.0006  -.0052
LnTA     -.2175    .0002   .0005  -.0147  -.0006   .0210  -.0188
LnMC      .1727   -.0001  -.0002  -.0167  -.0052  -.0188   .0308
Setwise Hypothesis Test
     F     df1     df2       p
   2.3275   1.0000  30.0000   .1376
------ END MATRIX -----
```

```
                              LnPER 2013 / 2014
Run MATRIX procedure:
HC Method
Criterion Variable
 LnPER
Model Fit:
    R-sq      F      df1     df2       p
   .4099    3.9907   6.0000  35.0000    .0038
Heteroscedasticity-Consistent Regression Results
        Coeff    SE(HC)      t    P>|t|
Constant  6.0474    .9454   6.3968    .0000
GB       -.0154    .0105  -1.4641    .1521
BI       -.0083    .0069  -1.2048    .2364
RM        .4024    .3750   1.0732    .2905
BS        .1075    .0481   2.2357    .0319
LnTA     -.3389    .1029  -3.2934    .0023
LnMC      .0662    .0970    .6819    .4998
Covariance Matrix of Parameter Estimates
       Constant      GB      BI      RM      BS      TA      MC
Constant  .8937    .0008   -.0017   .1288   -.0047   -.0753   .0368
GB        .0008    .0001    .0000  -.0016   -.0002    .0000   .0002
BI       -.0017    .0000    .0000   .0010   -.0001   -.0002   .0002
RM        .1288   -.0016    .0010   .1406   -.0016   -.0192   .0097
BS       -.0047   -.0002   -.0001  -.0016    .0023   -.0002  -.0013
LnTA     -.0753    .0000   -.0002  -.0192   -.0002    .0106  -.0075
LnMC      .0368    .0002    .0002   .0097   -.0013   -.0075   .0094
Setwise Hypothesis Test
     F     df1     df2      p
   .4650   1.0000  35.0000   .4998
------ END MATRIX -----
```

```
                           ROA 2013 / 2014
Run MATRIX procedure:
HC Method
Criterion Variable
 ROA
Model Fit:
    R-sq     F     df1     df2      p
   .5426   5.8543   6.0000  35.0000    .0003
Heteroscedasticity-Consistent Regression Results
       Coeff    SE(HC)      t     P>|t|
Constant  52.8340  14.2307   3.7127   .0007
GB       .0245    .1190    .2062    .8378
BI       .0315    .1019    .3094    .7589
RM     -2.5740   5.1107   -.5036   .6177
BS      -.4093    .6680   -.6126   .5441
LnTA   -3.2836   1.2082  -2.7178   .0101
LnMC    6.3601   1.2838   4.9541   .0000
Covariance Matrix of Parameter Estimates
      Constant     GB     BI     RM     BS     TA     MC
Constant  202.5135   .1462  -.7885   3.7512   .5487  -15.4768   9.6857
GB       .1462    .0142   .0013  -.0227  -.0365  -.0200   .0280
BI      -.7885    .0013   .0104   .2035  -.0402   .0352  -.0289
RM      3.7512  -.0227   .2035  26.1193  -1.2574  -.8273   .1939
BS       .5487  -.0365  -.0402  -1.2574   .4463   .0234  -.2380
LnTA   -15.4768  -.0200   .0352  -.8273   .0234   1.4597  -1.1011
LnMC    9.6857   .0280  -.0289   .1939  -.2380  -1.1011   1.6482
Setwise Hypothesis Test
    F     df1     df2      p
  24.5427   1.0000  35.0000    .0000
------ END MATRIX -----
```

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                              ROE 2013 / 2014
Run MATRIX procedure:
HC Method
Criterion Variable
 ROE
Model Fit:
    R-sq      F     df1     df2       p
   .5168    6.3576   6.0000  35.0000    .0001


Heteroscedasticity-Consistent Regression Results
        Coeff    SE(HC)      t    P>|t|
Constant 26.8761  19.0518   1.4107   .1672
GB       -.0477    .1637    -.2916   .7723
BI        .1045    .1467    .7119    .4812
RM       2.3361   5.8152    .4017    .6903
BS       -.5782    .8153    -.7092   .4829
LnTA     -1.5295   1.5520   -.9855   .3311
LnMC      6.4706   1.5265   4.2387   .0002
Covariance Matrix of Parameter Estimates
        Constant     GB      BI      RM      BS      TA      MC
Constant 362.9728    .2380  -2.0713  -18.3133   6.8223  -26.0110  13.8324
GB        .2380    .0268   .0050   -.0188   -.0617   -.0549   .0533
BI      -2.0713    .0050   .0215    .2754   -.0647    .0949   -.0711
RM      -18.3133   -.0188   .2754   33.8169   -.8443    .8590  -1.6737
BS       6.8223   -.0617   -.0647   -.8443    .6647   -.4567   -.2386
LnTA     -26.0110   -.0549   .0949    .8590   -.4567   2.4087  -1.4287
LnMC     13.8324    .0533   -.0711  -1.6737   -.2386  -1.4287   2.3303
Setwise Hypothesis Test
     F      df1     df2      p
  17.9668   1.0000  35.0000    .0002
------ END MATRIX -----
```

```
                          LnTBQ2013 / 2014
Run MATRIX procedure:
HC Method
Criterion Variable
 LnTBQ
Model Fit:
    R-sq     F     df1    df2      p
  .7368   8.6757  6.0000 35.0000  .0000
Heteroscedasticity-Consistent Regression Results
       Coeff   SE(HC)     t    P>|t|
Constant  5.7511   1.1884  4.8395   .0000
GB      .0023   .0129   .1809   .8575
BI     -.0014   .0082  -.1687   .8670
RM      .1263   .5844   .2161   .8302
BS      .0069   .0551   .1257   .9007
LnTA    -.8418   .1247  -6.7485   .0000
LnMC    .8267   .1216   6.8008   .0000
Covariance Matrix of Parameter Estimates
      Constant     GB     BI     RM     BS     TA     MC
Constant  1.4122   .0033  -.0052  -.0946   .0185  -.1287   .0777
GB      .0033   .0002   .0000  -.0002  -.0002  -.0002   .0000
BI     -.0052   .0000   .0001   .0016  -.0002   .0001   .0001
RM     -.0946  -.0002   .0016   .3415  -.0086   .0038  -.0025
BS      .0185  -.0002  -.0002  -.0086   .0030  -.0015  -.0013
LnTA    -.1287  -.0002   .0001   .0038  -.0015   .0156  -.0119
LnMC    .0777   .0000   .0001  -.0025  -.0013  -.0119   .0148
Setwise Hypothesis Test
     F    df1    df2     p
  46.2511  1.0000 35.0000  .0000
------ END MATRIX -----
```

		LnPER	LnTBQ	ROA	ROE	BS	GB	BI	RM	LnTA	LnMC
2008/2009	LnPER	1.000									
	LnTBQ	0.571*	1.000								
	ROA	-0.325**	0.156	1.000							
	ROE	-0.393**	0.065	0.662***	1.000						
	BS	-0.354**	0.050	0.123	0.245	1.000					
	GB	-0.195	-0.035	-0.162	0.159	0.481***	1.000				
	BI	0.094	-0.038	0.010	-0.338*	0.142	0.027	1.000			
	RM	-0.006	-0.078	-0.162	0.162	0.303*	0.299*	-0.023	1.000		
	LnTA	-0.237	-0.119	-0.193	0.204	0.664***	0.526***	-0.116	0.588***	1.000	
	LnMC	-0.046	0.074	-0.003	0.230	0.576***	0.408**	-0.033	0.439***	0.818***	1.000
2013/2014	LnPER	1.000									
	LnTBQ	0.409***	1.000								
	ROA	-0.239	0.603***	1.000							
	ROE	-0.121	0.430***	0.687***	1.000						
	BS	-0.143	-0.186	0.018	0.260*	1.000					
	GB	-0.288*	-0.244	-0.087	-0.033	0.450***	1.000				
	BI	-0.060	0.018	0.204	0.180	.340**	0.055	1.000			
	RM	-0.197	-0.282*	-0.167	0.197	0.330**	0.357**	-0.301*	1.000		
	LnTA	-0.526***	-0.436***	0.017	.352**	.598***	0.322**	-0.048	0.482***	1.000	
	LnMC	-0.284*	0.078	.427***	.637***	.539***	0.124	-0.004	0.306**	0.764***	1.000

**. Correlation is significant at the 1% level (2-LnTAiled).

*. Correlation is significant at the 5% level (2-LnTAiled).

***. Correlation is significant at the 10% level (2-LnTAiled).

Appendix D Wilcoxon signed-ranked test

Variables		N	Mean Rank	Sum of Ranks	Wilcoxon W	Z scores	Sig. (2-tailed)	Decision
LnPER	2008/2009	37	37	1,375	1,375.00	-1.032	0.302	Retain the null hypothesis
	2013/2014	42	43	1,785				
LnTBQ	2008/2009	37	40	1,462	1,461.50	-0.182	0.856	Retain the null hypothesis
	2013/2014	42	40	1,699				
ROA	2008/2009	37	42	1,541	1,619.50	-0.594	0.552	Retain the null hypothesis
	2013/2014	42	39	1,620				
ROE	2008/2009	37	41	1,513	1,647.00	-0.324	0.746	Retain the null hypothesis
	2013/2014	42	39	1,647				
BS	2008/2009	37	37	1,387	1,386.50	-0.925	0.355	Retain the null hypothesis
	2013/2014	42	42	1,774				
GB	2008/2009	37	36	1,321	1,320.50	-1.600	0.110	Retain the null hypothesis
	2013/2014	42	44	1,840				
BI	2008/2009	37	40	1,483	1,677.50	-0.025	0.980	Retain the null hypothesis
	2013/2014	42	40	1,678				
RM	2008/2009	37	41	1,535	1,625.50	-0.861	0.389	Retain the null hypothesis
	2013/2014	42	39	1,626				
LnTA	2008/2009	37	40	1,483	1,677.00	-0.029	0.976	Retain the null hypothesis
	2013/2014	42	40	1,677				
LnMC	2008/2009	37	37	1,353	1,353.00	-1.248	0.212	Retain the null hypothesis
	2013/2014	42	43	1,807				