

**THE EFFECT OF CROSS LISTING ON THE
ACCOUNTING QUALITY OF FIRMS CROSS LISTED IN
EAST AFRICAN MARKETS.**

BY

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DECLARATION

I hereby declare that this research project is my original work and that it has not been presented in any University or Institution for an award of a degree and that all the references cited in this study have been fully acknowledged.

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DEDICATION

I would like to dedicate this work to God. Only with Him are all things possible. And to my family, thank you for your solid support during this entire period.

ABSTRACT

Cross listing has been identified as a determinant of accounting quality. Prior empirical studies have differed on the effect of cross listing on accounting quality in different jurisdictions. The study of accounting quality in East Africa has however not incorporated the possible effect of cross listing. This research study sought to establish the effect that cross listing may have on the accounting quality of firms cross listed in East African stock exchanges. The study looked at three accounting quality metrics of firms cross listed in East Africa, namely, earnings management, timely loss recognition and value relevance of accounting information. The earnings management model used was the Lang, Raedy and Yetman (2003) earnings smoothing model. Timely loss recognition was investigated using the Basu (1997) model while value relevance was tested using the Lang, Raedy and Yetman (2003) model. These metrics were tested for differences during a three year period prior to cross listing and a three year period after cross listing. The firms selected for the study must have had their first secondary listing on or before the year 2010 in the East African securities markets for collection of adequate financial measures. Accounting quality metrics for a total of eight cross listed East African companies were analyzed. This study shows that earnings management did not occur around the cross listing dates. The value relevance of information presented by the cross listed firms did not change significantly, meaning that the ability of the summary accounting measures to accurately reflect the underlying economic value of the firms studied still remained as before the cross listing. There was no significant effect in terms of timely loss recognition in light of bad news and no indication of better prudence in the reporting of good news. It is clear from the study's findings that cross listing does not have an effect on the quality of reporting of firms cross listed within the East African Securities Exchanges. These findings provide a thrust forward in the move to achieve financial markets integration within the East African region, and cement the importance of retaining the quality of information even where there is a wider range of users of the information.

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LIST OF ABBREVIATIONS

CDS	Central Depository System
DSE	Dar es Salaam Stock Exchange
EAC	East African Community
EADB	East African Development Bank
EQUITY	Equity Bank
EY	Ernst and Young
GAAP	Generally Accepted Accounting Principles
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards
JBL	Jubilee Insurance
KCB	Kenya Commercial Bank
KQ	Kenya Airways
NMG	Nation Media Group
NSE	Nairobi Securities Exchange
RSE	Rwanda Stock Exchange
US	United States
USE	Uganda Securities Exchange

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Over the past two decades, bourses around the world have experienced a substantial increase in the number of firms that cross-list. Proportionate with this significant increase in cross-listings, a body of research has developed that investigates the benefits of cross listing. One of those benefits include the insistence on provision of information that suits a wider range of users (Francis, Hasan & Kostova, 2011).

Providing high quality information has been a primary concern of many national and international organizations. The insistence of the adoption of reporting standards, even in African markets, underpins this importance. Organizations have been found to cross-list as a signal of their high quality to investors and to differentiate themselves from low-quality competitors. Theoretical models predict that firms are predicted to list in overseas markets as a means of reducing information asymmetry and signaling their high quality to investors (Cantale, 1996; Fuerst, 1998; Moel, 1999). This quality could extend to the quality of financial reporting.

1.1.1 Cross Listing

Firms have over the years developed many sources of finance to be able to run efficient businesses. Sources include debt, equity and even own savings and earnings. A firm can raise equity from within or outside of a base country's borders (Onyuma, Mugo & Karuiya, 2012). Listing is the admission of a company into a stock market after meeting certain regulatory requirements by that country's regulatory authority. Raising equity on the stock markets in other countries gives rise to cross listing. Cross listing is the listing of a company's common shares on a different exchange than its primary and

original stock exchange (Onyuma, Mugo & Karuiya, 2012). Generally, a cross listed company's stock will be on a stock exchange in its country of incorporation and its secondary listing on an exchange in another country (Lee & Yerbassova, 2013).

Cross listing benefits a firm in several ways, the most primary advantage being the access to more liquidity (Amihud & Mendelson, 1986) and a greater ability to raise capital (Halling et al., 2004; Mittoo, 1992). Other benefits include the advantage of a lower cost of capital (Merton, 1987), investor protection which has given rise to the 'bonding' hypothesis (Stulz, 1999), product and labor market contemplations, and information disclosure (Baker, Nofsinger & Weaver, 2002). Cross listing has been shown to impress investors that the firm has improved levels and quality of financial disclosure. Generally, evidence points to the fact that companies go through a rise in home-market worth in the month around the listing (Miller, 1999).

Several hypotheses for the effects of cross listing exist. The customary risk sharing account for cross-listing establishes that companies profit from cross-listing in the U.S. because their cost of capital falls with the cross-listing (Errunza & Losq, 1985; Stulz, 1999). The bonding explanation for cross-listing is associated with the extra inspection that companies experience by listing on a U.S. exchange. Firms cross list as a means to bond with the U.S. market and U.S. laws, setting a system for managers to shun excessive private benefits, and therefore enjoy better access to external financing markets (Coffee, 2002). The growth opportunities hypothesis is intrinsically related to the bonding explanation for cross-listing and implies that cross listing makes it easier for firms to raise external capital, and thus improving their ability to take advantage of growth opportunities. In the signaling literature, firms cross-list as a means to signal

their high quality to investors and distinguish themselves from low-quality rivals (Melvin & Valero, 2007)

Kirop (2013) studied the effect of cross listing on the value of firms in East Africa. He found a positive effect. Cross listing increased the value of the East African firms cross listed. Wanjiru (2013) explored the effect of cross listing on the liquidity of firms listed in East Africa. He found that cross listing increased the volume of the companies' shares traded, increased market capitalization of the firms, improved capitalization of bourses where the firms had been listed, but established no significant effect on liquidity.

1.1.2 Accounting Quality

Accounting quality represents the qualitative characteristics of accounting information that make it useful to users of the financial information. The concept of earnings quality is elusive. The salient body of literature on earnings quality does not provide a clear definition of that quality. It does identify, however, different attributes that are associated with or reflective of earnings quality (Givoly, Hayn & Katz, 2008)

Penman and Zhang (2002), while recognizing the lack of unanimity on the definition of earnings quality, define it to mean that reported earnings is a good indicator of future earnings. They consider high-quality earnings to be sustainable earnings and, correspondingly, consider an accounting system that produces unsustainable earnings as being of poor quality

Dechow and Dichev (2002) suggest another aspect of earnings quality-- the strength of the relation between current accruals and past, present and future cash flows. Accordingly, they propose a model for expected accruals and interpret the deviation from this expected value as the estimation error in accruals, which they use as a measure of earnings quality. This measure is affected by firm characteristics such as the length of the business cycle as well as by earnings management.

Ball and Shivakumar (2005) define reporting quality in general terms as the usefulness of financial statements to investors, creditors, managers and all other parties contracting with the firm. This general definition notwithstanding, they examine a single dimension of quality, conditional conservatism using two measures: Basu's (1997) measure of the differential persistence of losses versus profits and the differential effect of economic gains and losses on the cash-accrual association.

Barth et al. (2008) use a model for the estimation of accounting quality that is based on three metric dimensions, namely, earnings management, timely loss recognition and value relevance. Information with less earnings management, more timely loss recognition, and higher value relevance is interpreted as being of higher quality. Earnings management metrics are based on the variance of change in net income, the ratio of the variance of change in net income to the variance of change in cash flows, the correlation between accruals and cash flows, and the frequency of small positive net income. Timely loss recognition metrics are based on the frequency of large losses and the association between bad-news returns and earnings. Value relevance metrics are the explanatory powers of income and equity book value for prices, and stock return for earnings (Barth, Landsman, Lang & Williams, 2007).

1.1.3 Cross Listing and Accounting Quality

Literature puts forward that organizations cross-list to signal their high quality to investors and differentiate themselves from low-quality competitors. Theoretical models predict that firms are predicted to list in overseas markets as a means of reducing information asymmetry and signaling their high quality to investors (Cantale, 1996; Fuerst, 1998; Moel, 1999).

Chemmanur and Fulghieri (2006) posit that firms gain advantage from listing on exchanges with high disclosure standards only if information producers can obtain information about the firms at low cost. Thus firms will list when they have a significant base of low-cost information producers, but would like to enlarge that base or to take advantage of the higher transparency of the foreign exchange.

The bonding hypothesis has been proposed to explain why some firms cross list on foreign markets, where there are usually better investor protections (Coffee, 2002; Doidge, Karolyi & Stulz, 2004; Stulz, 1999). Cross listing literature suggests the bonding hypothesis as an important motive for firms to cross list on a foreign market (Coffee, 1999; Stulz, 1999). There is evidence for better market performance of cross-listed firms in U.S. markets compared to their peers from home country (Doidge, Karolyi & Stulz, 2004). Karolyi (2006) points out that cross listing not only attracts more capital, but also brings about more stringent accounting requirements.

Lang, Raedy and Yetman (2003) examine and find higher accounting quality for non-U.S. firms from 21 different countries cross-listed on U.S. exchanges relative to non-

cross-listed firms. The quality of financial reporting is influenced by the level of investor protection (Leuz, Nanda & Wysocki (2003).

Cabán-García (2009) also does not find significant differences in earnings quality between European firms cross-listed in thirteen European stock exchanges and non-cross-listed firms. Eng and Lin (2011) indicate no differences in financial reporting between Chinese cross-listing firms and non-cross-listing firms. This study will seek to add to the literature on this relationship by examining the effect of cross listing on the accounting quality of firms listed in the securities exchange of the East African region.

1.1.4 History of Cross Listed Firms in East African Securities Markets

Of the East African countries, only Burundi does not have a securities exchange to date. There are currently four securities exchanges forming the EAC securities market (Kirop, 2013). All the four exchanges have made it mandatory for the listed firms to issue their financial reports in accordance with IFRSs.

In 1954 the then Nairobi Stock Exchange was then constituted as a voluntary association of stockbrokers registered under the Societies Act. The Nairobi Securities Exchange is the most advanced exchange in the region with over sixty listed companies from diverse segments of the economy (NSE, 2014). The NSE listing manual (NSE, 2014) requires that firms seeking to cross list on the NSE must comply with the disclosure and eligibility requirements prescribed for the Main Investments Market Segment. All listed firms in the NSE are required to present their financial reports in compliance with IFRS. Umeme Limited is the only East African firm that is cross listed on the NSE, having been cross listed in 2012.

The Uganda Securities Exchange (USE) was licensed to operate as an approved Stock Exchange in June 1997 by the Capital Markets Authority of Uganda. The USE began formal trading operations in January 1998 following the listing of its maiden instrument, the East African Development Bank (EADB) Bond. Currently the products listed on the Exchange include bonds and eighteen equities, eight of which are cross listed (USE, 2014). IFRSs become effective in Uganda on the respective effective dates as issued by the IASB. The USE listing rules require companies intending to cross list on the exchange meet all eligibility criteria for the Main Investment Market segment of the exchange (USE, 2014). There are eight cross listed firms on the USE. The first cross listing was East African Breweries Limited in 2001, followed by Kenya Airways in 2002.

The Dar es Salaam Stock Exchange (DSE) was incorporated in 1996 and commenced its operations in 1998 with a listing and trading of its first equity. In 1999, it deployed the Central Depository System (CDS) which also saw its first listing of a corporate bond. The DSE has twenty listed equities, seven of which are cross listed (DSE, 2014). Companies intending to cross list in the DSE must establish a place of business in Tanzania and register as a foreign company as per the Companies Act, 2002. The firm must then comply with the particular requirements, such as compliance with the provisions of the Securities Act and the first Schedule of the Companies Act, 2002 (DSE, 2014). Firms listed in the DSE must issue financial reports in compliance with IFRS. Kenya Airways was the first cross listing on the DSE in 2004 followed by East African Breweries Limited in 2005.

The Rwanda Stock Exchange Limited was incorporated on 7th October 2005 with the objective of carrying out stock market operations. The Stock Exchange was demutualized from the start as it was registered as a company limited by shares. The RSE is 60% owned by brokers, 20% by the Government of Rwanda and 20% by other shareholders. It has five listed equities, three of which are cross listed (RSE, 2014). The Rwanda law relating to companies, the Companies Act (2009), especially in article 254 requires that all companies use International Accounting Standards. All local and listed companies are required to publish their financial reports in accordance with the International Financial Reporting Standards (IFRS). Kenya Commercial Bank was cross listed in the RSE in 2009, followed by Nation Media Group in 2010.

1.2 Research Problem

Cross-border listing has been a topic of intensive empirical studies such as Doidge, Craig and Karolyi (2004), Karolyi (2006), and Adelegan (2009). This follows a lot of interest that researchers and academicians alike have developed towards understanding the reasons why the number of companies which have opted to cross-list their shares in foreign markets have been on the rise (Wong, Penm & Lim, 2004).

Cross listing has also been identified as a determinant of accounting quality. Companies whose shares are listed on the domestic market with at least one foreign quotation have to comply with international disclosure practices and international investors' needs (Meek & Saudagaran, 1990). Lang, Lins and Miller (2003) and Lang, Raedy, and Yetman (2003) studied the effect of cross listing on the accounting quality of firms in the US and found that cross listed companies exhibited higher levels of quality.

Lang, Raedy and Wilson (2006), Siegel (2005), Ndubizu (2007) and Eng and Lin (2011) all investigated the consequence of cross listing on the earnings and reporting quality of firms listed in US, Hong Kong and China. They all agree on the probability that these firms exhibit more earnings smoothing than firms that are not cross listed. Eng and Lin (2011) in addition found that cross listed firms, in addition to significant earnings smoothing activities, tend to use accruals to manage earnings, and are not timely in loss recognition. Adelegan (2008) found significant positive effect in measures of stock markets depth around regional cross-listing events and emphasized the possible effect of cross listing on success variables of cross listed.

The accounting quality of East African firms has been at the heart of the adoption of the IFRSs for all the listed companies in the four securities exchanges. The use of IFRS in improving the information of firms, especially those listed was tested by Outa (2011). Findings from Outa (2011) indicate that IFRS adoption for NSE listed firms only marginally increased the accounting quality and even decreased the accounting quality of these firms. Waweru et al. (2012) found that cross listed companies were valued higher than their domestic counterparts. Onyuma et al. (2012) found that cross listing highly boosted investor confidence in East Africa.

It is clear that prior studies have differed on the effect of cross listing on accounting quality. The study of accounting quality in East Africa has not incorporated the possible effect of cross listing. A gap therefore arises on the effect of cross border listing on the quality of accounting information released by firms listed across East Africa. What would be the effect of cross listing on the accounting quality of firms trading in the East African exchanges?

1.3 Research Objective

To establish the effect that cross listing may have on the accounting quality of firms cross listed in East African stock exchanges. The study will seek to study cross listing as a determinant of accounting quality of the firms listed in East African Securities Exchanges.

1.4 Value of the Study

This study hopes to add valuable input to the insights into the economics and effects of cross-listing decisions. It will also contribute to cross listing literature by studying the context of capital markets in East Africa and provide an additional empirical perspective on the one of the possible influences on accounting quality.

A number of stakeholders will benefit from the form and results of this study. Accounting practitioners will be able to understand the possible quality differences that exist in the information released to the public and possible ways to improve the quality of the information they release. Regulators will be able to see any possible accounting gaps across the region which they can address to ensure better enforcement of standards. Investors and analysts will be able to understand the importance of accounting information and what it points to about the firms in the study.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The literature that will be covered in this chapter will include that which evaluates the theoretical and empirical perspectives of cross listing and accounting quality as well as other significant determinants of accounting quality.

2.2 Theoretical Review

This section will cover hypotheses that relate to cross listing and its possible effect on the quality of accounting information released by firms.

2.2.1. Investor Recognition Hypothesis

The investor awareness hypothesis is based on the model of asset pricing with imperfect information by Merton (1987). Merton (1987) considers a reality in the capital markets: investors have incomplete information. It rests on the idea that information gathering costs limit the number of different securities an investor can hold and suggests that high information gathering costs drive investors to hold a set of assets with which they are familiar. The investors refrain from investing in stocks which have high cost to access firm specific information. Therefore, these stocks trade at discount price.

The change in investor awareness refers to becoming aware of the stocks once included in a securities exchange as well as enhanced information availability (Hacibedel, 2007). In a case where investors do not hold certain securities in their portfolios, Merton shows that the investors will be inadequately diversified and will demand a premium for taking on nonsystematic risk, causing a stock's required rate of return to depend on its investor base.

Merton's hypothesis relies on the particular characteristics of an information environment in which, due to different information structures, the awareness of a firm's

securities may be limited to a subset of the potential investing population. This limitation of a stock's investor base, i.e., the stock's limited visibility among investors, means that if the stock achieves increased visibility and consequently, increases its investor base, there should be a reduction in the cost of capital and a concomitant increase in the firm's market value.

Merton (1987) also provides an addition to his basic model. This extension indicates that changes in investor recognition will be positively correlated with corporate financing and investing activities. If exogenous events cause an increase in financing and investing activities, then the benefits from having a lower cost of capital will increase, so efforts to generate investor recognition of the firm's securities will increase (Wanjiru, 2013). Improved disclosure and quality of earnings information generated by the firm is implied as a means of attaining increased investor recognition.

2.2.2 Liquidity Hypothesis

The liquidity hypothesis, also referred to as the information cost hypothesis, formed by Amihud and Mendelson (1986) states that since U.S. capital markets are very liquid, firms who cross-list can raise capital at a lower cost than at home, especially companies from emerging markets. The price as well as the trading volume for the inclusions is expected to increase permanently as the higher liquidity is considered an advantage for the stock (Amihud & Mendelson, 1986)

A higher level of scrutiny in the market means that the information about the company is more easily available, thus lowering the information costs to the investors and increasing the stock's visibility. Furthermore, the increase in the trading volume is accompanied by narrowed bid-ask spreads and decreased volatility; this reduces the trading costs even more. Higher liquidity increases the firm value via reducing the cost

of capital as the information asymmetries between the informed and the uninformed investors are lessened (Amihud & Mendelson, 1986). The listing of firms in markets with higher liquidity and the increased scrutiny by investors implies that firms willing to improve their liquidity will have to provide higher quality information.

2.2.3 Bonding Hypothesis

Coffee (2002) uses bonding to refer to a mechanism by which firms incorporated in a jurisdiction with weak protection of minority rights or poor enforcement mechanisms can voluntarily subject themselves to higher disclosure standards and stricter enforcement in order to attract investors who would otherwise be reluctant to invest (or who would discount such stocks to reflect the risk of minority expropriation).

This bonding may occur either through the courts or through monitoring by reputational intermediaries such as U.S. underwriters, auditors, credit rating agencies, equity analysts, and stock exchanges. Coffee terms the first channel legal or liability-based bonding, and the second channel reputational bonding.

Coffee (1999) and Stultz (1999) argue that firms can raise capital if they commit to return this capital to investors and to limit the expropriation of cash-flows by controlling shareholders and managers. Therefore, firms wishing to raise external financing respond by bonding themselves to greater transparency (Coffee, 1999; Stultz, 1999). This implies that a higher quality of information is expected from firms that have listed across home borders.

2.3 Determinants of Accounting Quality

Both institutional and firm specific factors influence accounting quality. Institutional factors include the accounting standards being followed, legal and political systems,

and financial incentives. Firm specific determinants include ownership structure, use of external financing, domestic listing and multiple listing status.

2.3.1 Accounting Standard Being Followed

Soderstrom and Sun (2007) argue that the accounting standard being followed affects accounting quality. The shift to IFRS provide a better picture of the underlying economic value for firms because changes in the value of assets generally will be accounted for on a regular basis.

However, fair value accounting is likely to provide managers with more discretion in accounting, which might diminish the quality of accounting because of increased earnings management (Ormrod & Taylor, 2004). It is reasonable to assume that a better representation of underlying economic value will outweigh the negative effects of an increase in management discretion (Badloe, 2011).

2.3.2 Legal and Political System

Legal and political systems influence accounting quality in several ways (Soderstrom & Sun, 2007). Accounting standard-setting is a political process, in which users of accounting information such as tax authorities, banks, shareholders, managers have a significant influence on standard-setting. They also affect accounting quality directly through enforcement of accounting standards and litigation against managers and auditors. Enforcement power of accounting standards resides in the security exchanges and courts where firms are listed (Schipper, 2005).

The potential benefits of the introduction of IFRS are difficult to attain without the existence of effective enforcement mechanisms (Byard et al., 2011). Francis et al. (2005) state that firms in need of external financing voluntarily disclose more information than a country's minimum requirement and have lower costs of capital. Thus, the demand for information from market participants provides incentives for firm managers to improve the quality of financial reporting.

2.3.3 Financial Reporting Incentives

Accounting quality is influenced indirectly by the incentives associated with financial reporting. These incentives include the development of financial markets. The demand for information from market participants provides incentives for firm managers to improve the quality of financial reporting (Francis et al., 2005).

The tax system can also influence earnings quality by increasing the incentives to reduce taxable income, the statutory power of tax authorities to verify a firm's profits and the reduction of accounting standards quality due to a close linkage between accounting standards and tax laws which serve political purposes.

2.3.4 Firm-Specific Factors

Ownership structure has been identified as a possible determinant of accounting quality. Managers of firms whose ownership is diffuse have an incentive to increase disclosure quality in order to help shareholders in monitoring their behavior. A stronger ownership diffusion should weaken secrecy traditions (Michailescu, 1999).

The use of external financing and the type of this financing used by a firm may also determine accounting quality. Disclosure quality can also contribute to solve monitoring problems between creditors and shareholders and managers. An increase in disclosure quality can be used to give more confidence to creditors and reduce debt agency cost (Michailescu, 1999).

The listing status of a firm may also play a part in determining its accounting quality. Companies whose shares are listed on a stock exchange are likely to offer a higher disclosure quality than non-listed firms for three reasons: listed firms have to comply with minimum disclosure requirements of market regulation authorities (Schipper, 1981); financial analysts' incentives and press coverage make listed firms increase disclosure quality to give more confidence to investors (Firth, 1979); information disclosure helps reducing agency problems increased by quotation (Cooke, 1989).

Companies whose shares are listed on the domestic market and have at least one secondary listing location have to comply with domestic and foreign market requirements (Cooke, 1989), with international disclosure practices and international investors' needs (Meek & Saudagaran, 1990). This compliance is likely to increase the accounting quality of these firms relative to similar non-cross listed firms. This is the variable that this study tests, with special emphasis on the case of the East African markets.

2.4 Empirical Literature

Dietrich, Harris, and Muller (2000) in their investigation of United Kingdom investment property found that firms make accounting method choices regarding fair

value estimates of investment properties to boost earnings and time asset sales to help smooth earnings before raising debt. This points to a possibility of increased earnings management for firms in the raising finance from different sources.

Lang, Lins and Miller (2003) report that firms that cross list on U.S. exchanges have greater analyst coverage and increased forecast accuracy than firms that are not cross listed, and greater analyst coverage and improved forecast accuracy are associated with higher valuations. These findings imply that cross-listing firms should show less earnings management due to better corporate governance and a more transparent information environment.

Lang, Raedy, and Yetman (2003) find that cross-listed firms have better accounting quality than non-cross-listed firms. They infer capital market incentives from cross-listing status and document differences in multiple proxies for earnings quality across cross-listed firms and a matched sample of firms from the same country. Cross-listed firms appear to engage in less earnings management (measured by earnings smoothing, accruals, and frequency of small positive earnings), report more conservative earnings (measured by timeliness of loss recognition) and are more strongly associated with share price. The differences are caused by both changes around cross-listing and differences in accounting quality before listing (Lang et al., 2003). This study infers that cross listed firms are expected to show higher accounting quality.

Lang, Raedy and Wilson (2006) used matched samples mainly based on growth in sales and found that cross-listed firms on U.S. markets do manage earnings. Their study showed that cross listed firms present higher earnings management figures than

comparable American firms. They also showed that earnings management is higher for firms located in countries with weak investor protection.

Lang et al. (2006) has shown that foreign firms listed in the US present higher levels of earnings management than comparable American firms. They compared earnings management metrics built on statements prepared under US GAAP for American and foreign firms. Their result corroborated the argument presented by Siegel (2005) which states that cross listing in the US does not provides the expected 'legal bonding' but only a 'reputational bonding' because the American authorities do not have the will nor the resources to enforce their requirements on foreign firms. Their finding supports the expectation of the effect of cross listing on accounting quality, especially with regard to listing in markets with stronger enforcements.

Morck, Yeung, and Yu (2000) and Jin and Myers (2006) find high firm-specific stock return variation in developed markets, but low firm-specific return variation in emerging markets. They argue that when a country's environment is characterized by poor governance and opaque accounting, stock prices fail to reflect in a timely and accurate fashion specific information and events about a firm. Their study emphasizes the importance of high accounting quality on the value of firms.

Ndubizu (2007) found that foreign firms appear to boost accruals at the time of cross-listing their stock in the US. However, he found no differences between firms that raise capital at the time of cross-listing and a control group of cross-listing firms that do not. He implies a probability of earnings management in the event of firms listing across borders.

Eng and Lin (2011) examined the quality of financial reporting of Chinese firms cross-listed in the United States, Hong Kong and non-cross-listed Chinese firms based on measures of earnings management, timely loss recognition and price-earnings association. They found that both cross-listings and non-cross-listings show significant earnings smoothing activities and tend to use accruals to manage earnings, and are not timely in loss recognition. Cross-listing in the United States or Hong Kong did not change the accounting choices of Chinese cross-listing firms relative to firms that are not cross-listed.

Adelegan (2008) investigated the impact of cross-listing of stocks on the depth of stock markets in Sub-Saharan Africa by analyzing data from 1997 to 2007 of a panel of thirteen securities markets within the Sub Saharan countries. The findings showed a significant positive effect in measures of stock markets depth around regional cross-listing events and emphasize the possible effect of cross listing on success variables of firms listed across borders.

Outa (2011) studied the effect of IFRS adoption on accounting quality of firms listed in Kenya. The study compared changes in the quality of accounting between the pre-adoption period from 1995 to 1999 and the post adoption period from 2000 to 2004. Outa tested whether there was less earnings management, more timely loss recognition and higher value relevance in the adoption period as opposed to the pre adoption period. The outcomes of the study showed mixed results with some of the metrics indicating a marginal increase in accounting quality and others showing a decrease in the quality of accounting. The study did not include the wider East African region in its observations.

Waweru et al. (2012) analyzed the valuation effects of cross-listing. Cross listed firms in the Nairobi Securities Exchange were analyzed for value over a 13 year period to find out valuation differences between cross listed and non-cross listed firms. The results showed that cross listed firms are valued higher than non-cross listed firms. Waweru et al. (2012)'s findings are more in support of the growth opportunities hypothesis which poses that the main incentive for firms to cross list is the desire to exploit growth opportunities.

Onyuma et al. (2012) examined the effect of cross-border listing on financial performance of firms in Eastern Africa. Financial data spanning three years before and after cross-listing was collected from financial statements of three Kenyan firms which have cross-listed their shares in USE, DSE, and RSE between 2001 and 2011. The results showed a low positive financial performance in terms of liquidity upon cross-listing. Market confidence as measured by P/E ratio also improved. This implied that regional cross-listing may increase firm's investor confidence. The findings provide some overall evidence that firms may benefit from cross-listing in terms of liquidity and confidence, which can be created by improved quality of financial information.

2.5 Summary of Literature Review

The theoretical review covers three hypotheses that relate to the reasons that firms choose to cross list and the possible effects of these decisions. The empirical literature reviews works that have been done that relate to accounting quality and cross listing. The direct studies done on the effect of cross listing on accounting quality have given rise to different results as discussed.

No empirical study has however focused on the accounting quality of cross listed firms in East Africa. A gap thus arises in the literature about the effect of cross listing on accounting quality with a focus on the East Africa securities markets. These two variables have not been studied together in the East African context and this study hopes to fill that gap.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section outlines the methodological technique that used to carry out the study. It describes the research design, the study population, sampling design, data collection procedures, and data analysis technique used.

3.2 Research Design

Research design refers to both structure of the research problem – the framework, organization or configuration of the relationships among variables of a study and the plan of investigation used to obtain the empirical evidence on those relationships (Cooper and Schindler, 2010).

This study adapted a descriptive research design to allow the establishment of an understanding of cross listing and accounting quality. It describes the relationship between reporting quality and cross listing, with cross listing assumed to be a causal factor of accounting quality.

3.3 Population and Sampling Design

The population for the study is all the listed firms in the East African Securities Exchanges namely the NSE, DSE, USE and RSE. The focus of the study was the cross listed firms in these exchanges. The firms selected for the study must have had their first secondary listing on or before the year 2010 to allow for collection of adequate financial measures.

There are a total of nine cross listed East African companies namely Kenya Commercial Bank, Nation Media Group, Centum Investments Limited, Umeme Limited, Jubilee Holdings Limited, Equity Bank Limited, East Africa Breweries Limited, Uchumi

Limited and Kenya Airways. Uchumi and Umeme Limited are excluded from the study because their first cross border listing dates were 2013 and 2012 respectively.

Table 3.1 Dates of Primary and Secondary Listings in East African Securities Markets for Cross Listed Firms

Company	Date of Primary and Secondary Listings in:			
	NSE	DSE	USE	RSE
Kenya Commercial Bank	1989	2008	2008	2009
Nation Media Group	1973	2011	2010	2010
Centum Investments Limited	1977		2010	
Umeme Limited	2012		2012	
Jubilee Holdings Limited	1984	2006	2006	
Equity Bank Limited	2006		2009	
East Africa Breweries Limited	1972	2005	2001	
Uchumi Limited	1992	2014	2013	2013
Kenya Airways	1996	2004	2002	

Source: NSE, USE, DSE, RSE.

3.4 Data Collection Method

Quantitative methods were used to collect secondary data related to financial reporting including revenues, income, balance sheet and cash flow data. The focus was on the financial data that relates to the models of analysis and was collected relating to the period 2010 to 2013.

3.5 Data Analysis

Barth et al. (2007) argue that the metrics of accounting quality reflects the effects of the financial reporting system as well as those attributable to financial reporting such as the

economic environment. Barth et al. (2007) argued that there is no definitive way to determine the degree to which these research design features mitigate the effects of the economic environment and incentives on the metrics. It is expected that because all firms listed in the four exchanges must be IFRS compliant controlled for these effects.

3.5.1 Accounting Quality

The metrics applied to measure accounting quality in the study cover three dimensions as subsequently explained.

Earnings smoothing, as a measure of earnings management, was checked using the Spearman partial correlation between the residuals of operating accruals and operating cash flows (Lang, Raedy and Yetman, 2003; Leuz, Nanda and Wysocki, 2003; Myers & Skinner 1999). Studies by Lang, Raedy and Yetman(2003) further concluded that firms with less earnings smoothing exhibit a more negative correlation between accruals and cash flows because accruals reverse over time and are generally negatively correlated to cash flows.

$$CF_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GROWTH_{it} + \alpha_3 EISSUE_{it} + \alpha_4 LEV_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 CF_{it} + \alpha_8 AUD_{it} + \alpha_9 NUMEX_{it} + \alpha_{10} XLIST_{it} + \alpha_{11} CLOSE_{it} + \varepsilon_{it}$$

(Equation 1)

$$ACC_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GROWTH_{it} + \alpha_3 EISSUE_{it} + \alpha_4 LEV_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 CF_{it} + \alpha_8 AUD_{it} + \alpha_9 NUMEX_{it} + \alpha_{10} XLIST_{it} + \alpha_{11} CLOSE_{it} + \varepsilon_{it}$$

(Equation 2)

Where:

CF_{it} is the annual cash flow from operating activities scaled by end of year total assets for firm i year t ,

ACC_{it} is the earnings less cash flow from operating activities (scaled by end of year total assets) for firm i year t,

SIZE is the natural logarithm of end of year market value of equity,

GROWTH is percentage change in sales,

EISSUE is percentage change in common stock,

LEV is end of year total liabilities divided by end of year equity book value,

DISSUE is percentage change in total liabilities,

TURN is sales divided by end of year total assets, CF is annual net cash flow from operating activities,

AUD is an indicator variable that equals one if the firm's auditor is PwC, KPMG, EY, or Deloitte, and zero otherwise,

NUMEX is the number of exchanges on which a firm's stock is listed,

XLIST is an indicator variable that equals one if the firm is listed on any US stock exchange and World Scope indicates that the US exchange is not the firm's primary exchange (not applicable for this study), and

CLOSE is the percentage of closely held shares of the firm as reported by World Scope (not applicable for this study).

Timely loss recognition relates to an organization's ability to recognize losses as they occur by not engaging in activities that reschedule the losses to other periods (Outa, 2011). The regression specification used was the Basu (1997) model as below:

$$EPS_{it}/P_{it} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} DR_{it} + \varepsilon_{it} \quad (\text{Equation 3})$$

Where:

EPS_{it} is Earnings per share for firm i year t ,

P_{it} is opening stock market price for firm i year t ,

R_{it} is Stock markets return for firm i year t ,

DR_{it} is Dummy variable that is equal to 1 if the stock market return for firm i in year t is negative, and equal to 0 if the stock market return for firm i in year t is non- negative.

Basu (1997) regresses accounting earnings (EPS/P) on stock returns (R) separately for ‘good-news’ and ‘bad-news’ firm-year observations. A firm-year is deemed as a ‘good-news’ firm-year, if its market return is positive or zero, i.e. $R_{it} \geq 0$. Conversely, a firm-year is deemed as a ‘bad-news’ firm-year, if its stock return is negative, i.e. $R_{it} < 0$. The estimated slope coefficient measures how timely the news embodied in the stock return is recognized in earnings, conditional on the sign of stock returns.

Value relevance is the ability of the summary accounting measures to reflect the underlying economic value of the firm. These are measured through contemporaneous stock prices. In simple terms, value relevance tries to associate a firm’s value as expressed in stock prices to the reported income statement and balance sheet (Outa, 2011).

Stock price, P , was regressed on industry fixed assets and the residuals from this regressions on equity book value per share (BVEPS) and net income per share NIPS in line with Barth (2007). Following prior research, to ensure accounting information is in the public domain, P was measured six months after fiscal year-end (Lang, Raedy, and Yetman, 2003; Lang, Raedy, and Wilson, 2005). Firms with higher quality earnings

have a higher association between stock prices and earnings and equity book value because higher quality earnings better reflect a firm's underlying economics (Barth, Beaver, and Landsman, 2001).

The value relevance measure was the adjusted R^2 from equation:

$$P^*_{it} = \beta_0 + \beta_1 BVEPS_{it} + \beta_2 NIPS_{it} + \varepsilon_{it} \quad (\text{Equation 4})$$

Where:

P^*_{it} is the price as of 6 months after fiscal year end

BVEPS is the book value of equity per share

NIPS is the net income per share

3.5.2 Effect of Cross Listing on Accounting Quality

The study tested the effect of cross listing on accounting quality by determining the difference of means of the measures of accounting quality in the pre-cross listing and post-cross listing period.

The hypotheses tested are as below:

The null hypothesis (H_0) states that cross listing has no effect on the accounting quality of cross listed East African firms.

The alternate hypothesis (H_1) states that accounting quality has an effect on the accounting quality of cross listed firms.

The pre listing period tested was three years before the firm was first listed on a secondary exchange. The post listing period tested covered three years after the firm was first listed on another country's exchange. Each of the accounting quality measures

was computed for each firm in the pre and post cross listing period and descriptive statistics computed for the pre and post cross listing periods. Then a two sample t-test was carried to test the differences between the computed accounting quality metrics.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This section covers the analysis of data collected from secondary sources in line with the objective of the study which was to establish the effect of cross listing on the accounting quality of firms cross listed on East African Securities Exchanges.

4.2 Descriptive Statistics

The study looked at the companies cross listed, as tabulated below, in the East African Securities Exchanges so as to determine the effect of cross-listing on the accounting quality of firms cross-listed within the East African Securities Exchanges.

Table 4.1: Date of Secondary Listings in East Africa

Company	Date of Secondary Listing in:			
	NSE	DSE	USE	RSE
Kenya Commercial Bank		2008	2008	2009
Nation Media Group		2011	2010	2010
Centum Investments Limited			2010	
Umeme Limited	2012			
Jubilee Holdings Limited		2006	2006	
Equity Bank Limited			2009	
East Africa Breweries Limited		2005	2001	
Uchumi Limited		2014	2013	2013
Kenya Airways		2004	2002	

Source: NSE, DSE, USE, RSE

The data collected focused on three measures of accounting quality collected over a six year period for each firm. The six year period was an equal split between the pre cross listing period and the post cross listing period. The objective was achieved by analysis of financial information obtained from the firms' financial reports for three years prior to and after the cross listing. The analysis was based on three dimensions of accounting quality namely earnings management, timely loss recognition and value relevance of the cross listed firms. Data was collected for six firms out of seven, with pre cross listing information on East African Breweries not being accessible. The significance level was tested at 0.05.

Table 4.2: Period of data collection and analysis for the cross listed East African firms

Company	Period of Study	
	Pre Cross Listing Period	Post cross Listing Period
Kenya Commercial Bank	2005 to 2007	2008 to 2010
Nation Media Group	2007 to 2009	2010 to 2012
Centum Investments Limited	2007 to 2009	2010 to 2012
Jubilee Holdings Limited	2003 to 2005	2006 to 2008
Equity Bank Limited	2006 to 2008	2009 to 2011
East Africa Breweries Limited	1998 to 2000	2001 to 2003
Kenya Airways	1999 to 2001	2002 to 2004

4.3 Accounting Quality Prior to and After Cross Listing

4.3.1 Earnings Management

This was measured by determining the Spearman partial correlation between the residuals of operating accruals and operating cash flows. The regression equations for determining the residuals used were:

$$CF_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GROWTH_{it} + \alpha_3 EISSUE_{it} + \alpha_4 LEV_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 CF_{it} + \alpha_8 AUD_{it} + \alpha_9 NUMEX_{it} + \alpha_{10} XLIST_{it} + \alpha_{11} CLOSE_{it} + \varepsilon_{it}$$

(Equation 1)

$$ACC_{it} = \alpha_0 + \alpha_1 SIZE_{it} + \alpha_2 GROWTH_{it} + \alpha_3 EISSUE_{it} + \alpha_4 LEV_{it} + \alpha_5 DISSUE_{it} + \alpha_6 TURN_{it} + \alpha_7 CF_{it} + \alpha_8 AUD_{it} + \alpha_9 NUMEX_{it} + \alpha_{10} XLIST_{it} + \alpha_{11} CLOSE_{it} + \varepsilon_{it}$$

(Equation 2)

The results obtained from this analysis are tabulated below:

Table 4.3: Spearman Partial Correlation between the residuals of Operating Cash flows and Operating Accruals.

Spearman Correlation Between the Residuals of Operating Cash flows and Operating Accruals		
	Pre Cross Listing	Post Cross Listing
KCB	-0.72	0.54
NMG	-0.5	-0.995
Centum	0.87	0.2774
JBL	-0.99	-0.81
Equity	-1	-0.816
KQ	0.64	0.97
	T-Stat	-0.52918
	P-value	0.30966

Source: Research Findings

Firms with less earnings smoothing exhibit a more negative correlation between accruals and cash flows (Lang, Raedy & Yetman, 2003). The general trend in the research findings indicate a move towards positive correlation after the cross listing.

Four of the six firms indicate a likely possibility of earnings smoothing. The biggest difference in the pre and post cross listing period is from -0.72 to 0.54. The mean movement in correlation shows an overall change in the correlation towards the positive, that is, from -0.28 to -0.14. The change in correlation is not significant as tested by the t-value and p-value (>0.05), indicating no possible earnings smoothing, thus no change in accounting quality after cross listing.

4.3.2 Timely Loss Recognition

Basu (1997) regresses accounting earnings (EPS/P) on stock returns, R, separately for good news and bad news firm year observations using the model below:

$$EPS_{it}/P_{it} = \alpha_0 + \alpha_1 DR_{it} + \beta_0 R_{it} + \beta_1 R_{it} DR_{it} + \varepsilon_{it} \quad (\text{Equation 3})$$

B_0 measures the response of earnings to returns when returns are positive. B_1 measures the response when the returns are negative. In bad news firm year observations, the higher the β_1 , the higher the degree of conservatism, and thus the higher the level of accounting quality.

The results of the analysis are represented in the table below:

Table 4.4: Slope Coefficients as per the Basu (1997) model

Slope Coefficients				
	Pre Cross Listing		Post Cross Listing	
	Good News	Bad News	Good News	Bad News
	β_0	β_1	β_0	β_1
KCB	0.000344	-	0.13463	0.004007

NMG	0.00376	0.000165	0.00144	0.004728
Centum	-	0.0001944	0.016097	0.00386
JBL	0.009263	-	0.000736	0.001197
Equity	0.002813	-	0.01171	0.0055
KQ	0.71726	-	0.03913	-
			t-stat (good news)	0.73608
			t-stat (bad news)	-3.6635
			p-value (good news)	0.24737
			p-value (bad news)	0.00727

Source: Research Findings

From the above results, the firms return a lower coefficient for most of the good and bad news observations. The changes are significant for the ‘bad news’ observations, $p < 0.05$. The ‘good news’ indicate a lower coefficient on the earnings response to good news, that is not significant as $p > 0.05$. This shows that the firms tend to be timelier in the recognition of good news. It is however evident from the analysis that bad news are not recognized in a timely manner. It can however not be concluded that cross listed firms are less conservative in their loss recognition due to this. Only two firms were involved in the measure of the Basu asymmetric timeliness coefficient for bad news. The analysis returns the effect of cross listing on timely loss recognition by firms as indifferent.

4.3.3 Value Relevance

Value relevance, as the ability of summary accounting measures to reflect the underlying economic value of the firm, was measured using the model below:

$$P^*_{it} = \beta_0 + \beta_1 BVEPS_{it} + \beta_2 NIPS_{it} + \varepsilon_{it} \quad (\text{Equation 4})$$

The test statistic on this dimension is the adjusted r^2 as shown in the table below:

Table 4.5: Adjusted r^2 as a measure of value relevance of reported financial information

Adjusted r^2		
	Pre Cross Listing	Post Cross Listing
KCB	0.9705	0.913
NMG	0.87772	0.94735
Centum	0.59694	0.98206
JBL	0.99794	0.68156
Equity	0.99788	0.95657
KQ	0.97218	0.06234
	t-stat	0.810897
	p-value	0.227138

Source: Research Findings

The metrics for value relevance are the explanatory powers of income and equity book value for prices. Higher explanatory power is seen as evidence of more value relevance. Four of the six firms indicate a reduction in adjusted r^2 after cross listing. The most significant individual firm reduction in adjusted r^2 is 0.06 from 0.97. There is a mean reduction in the adjusted r^2 for all firms from 0.9 to 0.76, which is not significant as $p > 0.05$.

4.4 Discussion of Findings

Michailescu (1999) stated that multiple listing status is a determinant of accounting quality. Companies whose shares are listed in at least one secondary listing location have to comply with domestic and foreign market requirements (Cooke, 1989), and with international disclosure practices and international investors' needs (Meek & Saudagaran, 1990). Lang, Lins and Miller (2003) findings suggest that cross listing firms are expected to show less earnings management due to better corporate governance and a more transparent information environment. Lang, Raedy and Wilson (2006) concluded that cross listed firms in the United States present higher earnings management figures relative to comparable American firms. In East Africa, this study has indicated that there was no significant effect of cross listing on earnings management by the firms cross listed in East African securities markets. There was no significant effect of cross listing on the accounting quality of East African firms.

Lang, Raedy and Yetman (2003), in their study, concluded that cross listed firms have better accounting quality. They found that cross listed firms appear to engage in less earnings management, report more conservative earnings and are more strongly associated with share prices. Eng and Lin (2011) found that cross listing did not change the accounting choices of Chinese cross listing firms. The findings of this study are more consistent with those of Eng and Lin (2011) in that East African firms show no significant change in their accounting quality East African cross listed firms have reported no change in earnings management, timely loss recognition and value relevance.

The empirical evidence provided by this study indicates that for East African firms, cross listing does not affect accounting quality. Accounting quality in this instance was determined by the possibility of earnings smoothing by firms, timely loss recognition and the value relevance of price information of the firms. These were measured and found to have no significant change where compared prior to and after cross listing. The findings thus fail to reject the null hypothesis, maintaining that cross listing has no effect on the accounting quality of cross listed East African firms.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes the study and makes conclusions based on the results obtained. It also presents the implications of the study on policy as well as recommendations for further research.

5.2. Summary of Findings

This study investigated three dimensions of accounting quality namely earnings management, timely loss recognition and value relevance by comparing these measures in the three year period prior to cross listing and the three year period after cross listing. The information was obtained from the financial reports as well as relevant and available market information for six cross listed whose information was completely available for analysis.

Earnings management was measured by determining the Spearman partial correlation between the residuals of operating accruals and operating cash flows. Firms with less earnings smoothing exhibit a more negative correlation between accruals and cash flows (Lang, Raedy & Yetman, 2003). The mean movement in correlation shows an overall change in the correlation towards the positive from -0.28 to -0.14. This change was however found to be non-significant as indicated by the p-value (>0.05), indicating no evidence of earnings smoothing.

Timely loss recognition is measured using Basu's (1997) conservatism model. The good news and bad news recognition was measured separately. The 'good news' indicate a lower coefficient on the earnings response to good news. This change is

however not significant. This indicates that firms exhibited no change in the recognition in the timely recognition of good news prior to and after cross listing. The changes are significant for the 'bad news' observations as indicated by $p < 0.05$. The change was concluded not to be significant for the study because of the smaller number of firms that reported bad news within the period reviewed. The analysis thus returns the effect of cross listing on timely loss recognition, which is bad news, by firms as indifferent.

Value relevance is measured in the study by determining the response of earnings on returns. There is a mean reduction in the adjusted r^2 for all firms from 0.9 to 0.76, which is not significant as p is greater than 0.05. This result indicates that value relevance has not changed for the firms after cross listing. The three metrics for accounting quality indicated that there was no significant change in accounting quality prior to and after the cross listing.

5.3 Conclusion

The empirical evidence of this study shows that earnings management did not occur around the cross listing dates. The value relevance of information presented by the cross listed firms did not change significantly, meaning that the ability of the summary accounting measures to accurately reflect the underlying economic value of the firms studied still remained as before the cross listing. There was no significant effect in terms of timely loss recognition in light of bad news and no indication of better prudence in the reporting of good news.

The findings of the study present evidence on the effect of cross listing on the accounting quality of firms cross listed within the East African Securities Exchanges. Previous studies have indicated differed effects of cross listing on the accounting

quality of cross listed in different regions. Based on the findings of the study, it is clear that cross listing does not have an effect on the quality of reporting of firms cross listed within the East African Securities Exchanges.

5.4 Policy Recommendations

The regulatory authorities have reason to be concerned about the effect of cross listing on the quality of financial reporting of firms. The findings of this study will help them to evaluate the importance of integration of the securities markets, and the possible effect of this on the more qualitative characteristics of financial reporting. That cross listing had no impact on the accounting quality of the firms studied is a step forward in the move to advance financial markets integration within the East African region.

It is important that authorities are aware of the necessity of presenting information that reflects the true situation of companies. This will assist users to obtain maximum benefit from financial information as well as prevent any possibility of misrepresentation of the true and fair view of companies' state of affairs. This study and its findings have also pointed out the importance of retaining accounting quality even when reporting to a bigger number and wider variety of users. Meeting the needs of all these users should not cause companies to alter the compromise on the worth of information presented to the public.

5.5 Limitations of the Study

There were a few challenges encountered in the course of this study, including the limitation of time. This may have had an effect on the results obtained. The study covered six companies and the results may have thus been affected by the sample size.

A higher sample size would have augmented the results of the study but the six year period around the cross listing meant that the firms studied were of a reduced number.

There was also the challenge of getting information, especially information that dated more than a decade back. It would have been more comprehensive if this information had been available. The lack of adequate information excluded one company from the study. The diverse dates of secondary listing meant that two companies did not meet the three year post cross listing period thus excluding them from the study. Hopefully the passage of time will allow for their incorporation into future studies.

5.6 Areas for Further Research

It would be very important to have other studies focus on the other determinants of accounting quality with regard to the East African context, especially the financial reporting incentives, ownership structure, external financing and other firm specific factors. This will expand the literature on the usefulness of financial information in East Africa.

Another possible area of research would be a study of why there are only a few number of firms that have chosen to cross list in East Africa, despite the easing of regulations and the increased effort towards regional financial integration. Researchers should continue to investigate and outline the future of cross listing in East Africa, as well as the continued efforts towards higher financial accountability in the region.

REFERENCES

- Adelegan, O. (2009). *The Impact of the Regional Cross-Listing of Stocks on Firm Value in Sub-Saharan Africa*. International Monetary Fund. Washington: IMF Working Paper 09/99.
- Adelegan, O. J. (2008). *Can regional cross-listings accelerate stock market development? Empirical evidence from Sub-Saharan Africa*. International Monetary Fund. Washington: IMF Working Paper.
- Amihud, Y., & Mendelson, H. (1986). Asset prices and the bid ask spread. *Journal of Financial Economics*, 17, 223-249.
- Ashbaugh, H. (2001). Non-U.S. Firms' Accounting Standard Choices. *Journal of Accounting and Public Policy* 20, 129-153.
- Badloe, S. (2011). *The Quality of Accounting Information: A Case of the Netherlands*. Erasmus University Rotterdam Faculty Erasmus School of Economics.
- Baker, H., Nofsinger, R., & Weaver, D. (2002). International cross-listing and visibility. *Journal of Financial and Quantitative Analysis* 37 (3), 495–521.
- Ball, R., & Shivakumar, L. (2005). Earnings quality in U.K. private firms: Comparative loss recognition timeliness. *Journal of Accounting and Economics* 39, 83-128.
- Ball, R., Kothari, S., & Robin, A. (2000). The Effect of International Institutional Factors on Properties of Accounting Earnings. *Journal of Accounting and Economics* 29, 1-51.

- Barth, M. E., Landsman, W. R., Lang, M., & Williams, C. (2007). *Accounting Quality: International Accounting Standards and US GAAP*. Stanford University Graduate School of Business Research Paper No. 1976 .
- Barth, M., Landsman, W., & Lang, M. H. (2008). International accounting standards and accounting quality . *Journal of Accounting Research* 46(3), 467-498.
- Basu, S. (1997). The conservatism principle and the asymmetric timeliness of earnings. *Journal of Accounting and Economics* 24 (1), 3-37.
- Bradshaw, M., Richardson, S., & Sloan, R. (2001). Do analysts and auditors understand information in accruals? *Journal of Accounting Research* 39 (1), 45-74.
- Byard, D., Li, Y., & Yu, Y. (2011). The Effect of Mandatory IFRS Adoption on Financial Analysts' Information Environment. *Journal of Accounting Research*, 49(1), 69-96.
- Cabán-García, M. (2009). The impact of securities regulation on the earnings properties of European cross-listed firms. *International Journal of Accounting* 44, 279-304.
- Cantale, S. (1996). *The Choice of a Foreign Capital Market as a Signal*. INSEAD Working Paper.
- Cantale, S. (1996). The Choice of a Foreign Market as a Signal. *INSEAD working paper*.
- Chemmanur, T., & Fulghieri, P. (2006). Competition and Cooperation Among Exchanges: A Theory of Cross-Listing and Endogenous Listing Standards. *Journal of Financial Economics* (82), 455-489.

- Chemmanur, T., & Fulghieri, P. (2006). Competition and Cooperation Among Exchanges: A Theory of Cross-Listing and Endogenous Listing Standards. *Journal of Financial Economics* (82), 455-489.
- Coffee Jr., J. C. (1999). The Future as History: The Prospects for Global Convergence in Corporate Governance and its Implications. *Northwestern Law Review* (93), 641-707.
- Coffee Jr., J. C. (2002). Racing Towards the Top?: The Impact of Cross-Listings and Stock Market Competition on International Corporate Governance. *Columbia Law Review* (102), 1757-1831.
- Cooke, T. (1989). *An empirical study of financial disclosure by Swedish companies*. New York: Garland.
- Cooper, D. R., & Schindler, P. S. (2010). *Business Research Methods*. McGraw-Hill Irwin.
- Dechow, P., & Dichev, I. (2002). The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review* 77 (Supplement), 35-59.
- Dechow, P., Sloan, R., & Sweeney, A. (1996). Causes and consequences of earnings manipulation: An analysis of firms subject to enforcement actions by the SEC. *Contemporary Accounting Research* 13, 1-36.
- Dietrich, J. R., Harris, M. S., & Muller, K. A. (2001). The reliability of investment property fair value estimates. *Journal of Accounting and Economics* 30, 125-158.
- Doidge, C., Karolyi, A., & Stulz, R. (2004). Why Are Foreign Firms Listed in the U.S. Worth More? *Journal of Financial Economics* 71, 205-238.

- DSE. (2014, September 15). *Dar es Salaam Stock Exchange: Home*. Retrieved from
DSE Web Site: <http://dse.co.tz/>
- Eng, L. L., & Lin, Y. (2011, February). Accounting Quality, Earnings Management
and Cross-listings: Evidence from China.
- Errunza, V., & Losq, E. (1985). International Asset Prices Under Mild Segmentation.
Journal of Finance (40), 105-124.
- Firth, M. (1979). The impact of size, stock market listing and auditors on voluntary
disclosure in corporate annual reports. *Accounting and Business Research*, 9,
273-280.
- Francis, B. B., Hasan, I., & Kostova, G. (2011). *Cross-listing, Price Informativeness,
and the Sensitivity of Investment to Stock Price*.
- Francis, J., LaFond, R., Olsson, P., & Schipper., K. (2005). The market pricing of
accruals quality. *Journal of Accounting and Economics*, 39(2), 295-327.
- Fuerst, O. (1998). A Theoretical Analysis of the Investor Protection Regulations
Argument for Global Listing of Stocks. *Yale University working paper*.
- Fuerst, O. (1998). A Theoretical Analysis of the Investor Protection Regulations
Argument for Global Listing of Stocks. *Yale University working paper*.
- Fuerst, O. (1998). *A Theoretical Analysis of the Investor Protection Regulations
Argument for Global Listing of Stocks*. Working Paper, International Center
for Finance at Yale, Yale University.
- Givoly, D., Hayn, C., & Katz, S. P. (2008). Does Public Ownership of Equity
Improve Earnings Quality? *Havard Business School Working Paper*, 09-105.

- Halling, M., Pagano, M., Randl, O., & Josef, Z. (2004). Where is the market? Evidence from Cross Listings. *CEPR Discussion Paper No. 4987*.
- Huddart, S., Hughes, J., & Brunnermeier, M. (1999). Disclosure Requirements and Stock Exchange Listing Choice in an International Context. *Journal of Accounting and Economics* (26).
- Jin, L., & Myers, S. (2006). R2 around the world: New Theory and New Tests. *Journal of Financial Economics* 79, 257–292.
- Karolyi, A. (2006). The World of Cross-Listings and Cross-Listings of the World: Challenging Conventional Wisdom. *Review of Finance* 10, 99-152.
- Karolyi, G. A. (1998). Why Do Companies List Shares Abroad? A Survey of the Evidence and its Managerial Implications. *Financial Markets, Institutions and Instruments* 7, 1-60.
- Kirop, R. K. (2013). *The Effect of Cross Listing on the Value of Firms Cross Listed within East Africa Exchanges*. University of Nairobi.
- Lang, M., Lins, K., & Miller, D. (2003). ADRs, Analysts, and Accuracy: Does Cross Listing in the United States Improve a Firm's Information Environment and Increase Market Value? *Journal of Accounting Research* 41, 317-345.
- Lang, M., Raedy, J., & Wilson, W. (2006). Earnings management and cross listing: Are reconciled earnings comparable to U.S. earnings? *Journal of Accounting and Economics* 42, 255-283.
- Lang, M., Raedy, J., & Yetman, M. (2003). How representative are firms that are cross-listed in the United States? An analysis of accounting quality. *Journal of Accounting Research* 41-2, 363-386.

- Lee, K. J., & Yerbassova, A. (2013). Kazakhstani Cross-Listed Stock Prices, Efficiency Market and IPO. *European Scientific Journal*, 310-324.
- Leuz, C., Nanda, D., & Wysocki, P. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics* 69, 505-527.
- Leuz, C., Nanda, D., & Wysocki, P. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics* 69, 505-527.
- Li, T., Luo, M., & Ng, D. (2010). Earnings Management and Cross Listing: Evidence from a Natural Experiment in China. *Unpublished Working Paper* . Peking University.
- Meek, G., & Saudagaran, S. (1990). A survey of research on financial reporting in a transnational context. *Journal of Accounting Literature*, 9, 145-182.
- Melvin, M., & Valero, M. (2007, December). The Dark Side of International Cross Listing: Effects on Rival Firms at Home. *CESifo Working Paper No. 2174: Category 6-Monetary Policy and International Finance*.
- Merton, C. (1987). A simple model of capital market equilibrium with incomplete information. *Journal of Finance* 42(3), 483-504.
- Michaïlesco, C. (1999). The determinants of the quality of accounting information disclosed by French listed companies. *1999 EAA Congress*.
- Miller, D. (1999). The Market Reaction to International Cross-Listings: Evidence from Depository Receipts. *Journal of Financial Economics* 51, 103–123.

- Miller, D. P. (1999). The Market Reaction to International Cross-listings: Evidence from Depositary Receipts. *Journal of Financial Economics* 51, 103-123.
- Mittoo, U. (1992). Managerial Perceptions of The Net Benefits of Foreign Listing: Canadian Evidence. *Journal of International Financial Management and Accounting* 4, 40-62.
- Moel, A. (1999). *The Role of Information Disclosure on Stock Market Listing Decisions: The Case of Foreign Firms Listing in the U.S.* Working Paper, Harvard Business School, Harvard University.
- Moel, A. (1999). The Role of Information Disclosure on Stock Market Listing Decisions: The Case of Foreign Firms Listing in the US. *Harvard University working paper.*
- Moel, A. (1999). The Role of Information Disclosure on Stock Market Listing Decisions: The Case of Foreign Firms Listing in the US. *Harvard University working paper.*
- Morck, R., Yeung, B., & Yu, W. (2000). The information content of stock markets: why do emerging markets have synchronous stock price movements? *Journal of Financial Economics* 58, 215-260.
- Ndubizu, G. (2007). Do cross-border listing firms manage earnings or seize a window of opportunity?. . *The Accounting Review* 82, 1009-1030.
- NSE. (2014, September 15). *Nairobi Securities Exchange: Listed Companies.*
Retrieved from NSE Web Site: <https://www.nse.co.ke/listed-companies/>

- Onyuma, S. O., Mugo, R. K., & Karuiya, a. J. (2012). Does Cross Border Listing (Still) Improve Firm Financial Performance in East Africa? *Journal of Economics, Business and Finance*, 92-109.
- Ormrod, P., & Taylor, P. (2004). The impact of the change to International Accounting Standards on debt covenants: a UK perspective. *Accounting in Europe*, 1, 71-94.
- Outa, E. R. (2011). The Impact of International Financial Reporting Standards (IFRS) Adoption on the Accounting Quality of Listed Companies in Kenya. *International Journal of Accounting and Financial Reporting*, 1(1), 212-241.
- Pagano, M., Röell, A., & Zehner, J. (2002). The Geography of Equity Listings: Why do Companies List Abroad? . *Journal of Finance* 57, 2,651-2,694.
- Penman, S. H., & Zhang, X. J. (2002). Accounting conservatism, the quality of earnings, and stock returns. *The Accounting Review* 77 (2), 237-264.
- Richardson, S. A., Sloan, R. G., Soliman, M. T., & Tuna., A. (2005). Accrual reliability, earnings persistence and stock prices. *Journal of Accounting and Economics* 39 (3), 437-485.
- RSE. (2014, September 15). RSE. Retrieved from Rwanda Stock Exchange Web Site: <http://www.rse.rw/>
- Schipper, K. (1981). Discussion of voluntary corporate disclosure : the case of interim reporting. *Journal of Accounting Research*, n°19,supplement, 85-88.
- Schipper, K. (2005). The Introduction of International Accounting Standards in Europe: Implications for International Convergence. *European Accounting Review*, 14(1), 101-126.

- Siegel, J. (2005). Can foreign firms bond themselves effectively by renting U.S. securities laws? *Journal of Financial Economics*, 75, 319–359.
- Sloan, R. G. (1996). Do stock prices fully reflect information in accruals and cash flows about future earnings? *The Accounting Review* 71 (3), 289-315.
- Soderstrom, N., & Sun, K. (2007). IFRS adoption and Accounting Quality: A Review. *European Accounting Review*, 16(4), 675–702.
- Stulz, R. (1999). Globalization, Corporate Finance and the Cost of Capital. *Journal of Applied Corporate Finance* (12), 8-25.
- Tarca, A. (2004). International Convergence of Accounting Practices: Choosing between IAS and US GAAP. . *Journal of International Financial Management and Accounting* 15, 60-91.
- USE. (2014, September 15). *Uganda Securities Exchange*. Retrieved from USE Web Site: <http://www.use.or.ug/>
- Wanjiru, C. K. (2013). *The Relationship between Cross Listing and Liquidity: A Study of Shares Cross Listed in the East African Securities Exchanges*. University of Nairobi.
- Waweru, K. M., Pokhariyal, G. P., & Mwaura, M. F. (2012, September). Cross-Listing and Valuation Effects: Evidence From Nairobi Securities Exchange. *Journal of Modern Accounting and Auditing*, 8(9), 1371-1380.
- Wong, K. W., Penm, J., Terrell, R. D., & Lim, K. (2004). The Relationship between Stock markets of major developed countries and Asian emerging markets. *Journal of Applied Mathematics and Decision Sciences*, 8(6), 201–218.

APPENDIX

I. EARNINGS MANAGEMENT ANALYSIS DATA

		CF	ACC	SIZE	GROWTH	EISSUE	LEV	DISSUE	TURN	CF	AUD	NUMEX
Kenya Commercial Bank	2005	0.09	-0.07	20.97	0.36	0.00	34.18	0.12	0.07	0.09	1.00	1.00
	2006	0.02	0.01	21.54	0.23	0.00	40.53	0.19	0.08	0.02	1.00	1.00
	2007	0.02	0.01	24.60	0.33	0.00	53.74	0.33	0.08	0.02	1.00	1.00
	2008	0.07	-0.04	24.68	0.57	0.11	76.71	0.59	0.08	0.07	1.00	3.00
	2009	0.05	-0.03	24.54	0.22	0.00	77.65	0.01	0.09	0.05	1.00	4.00
	2010	-0.01	0.04	24.88	0.29	0.33	71.93	0.23	0.09	-0.01	1.00	4.00
Nation Media Group	2007	0.29	-0.10	23.83	0.21	0.00	6.07	0.20	1.30	0.29	1.00	1.00
	2008	0.15	0.06	24.56	0.07	0.00	6.46	0.07	1.25	0.15	1.00	1.00
	2009	0.23	-0.06	23.75	-0.01	0.00	5.21	-0.19	1.25	0.23	1.00	1.00
	2010	0.34	-0.13	23.64	0.17	0.10	6.50	0.37	1.20	0.34	1.00	3.00
	2011	0.20	0.03	23.99	0.17	0.00	6.86	0.06	1.28	0.20	1.00	4.00
	2012	0.34	-0.07	24.28	0.10	0.00	8.54	0.24	1.16	0.34	1.00	4.00
Centum	2007	0.03	0.12	23.61	0.99	0.00	0.27	-0.70	0.10	0.03	1.00	1.00
	2008	0.01	0.09	23.52	-0.28	0.00	0.25	-0.08	0.07	0.01	1.00	1.00
	2009	0.05	0.00	23.06	-0.33	0.00	0.92	2.75	0.06	0.05	1.00	1.00
	2010	0.06	0.09	22.55	1.65	0.00	1.45	0.57	0.13	0.06	1.00	2.00
	2011	0.02	0.20	23.36	1.18	0.10	9.07	5.86	0.18	0.02	1.00	2.00
	2012	-0.01	0.11	22.83	-0.44	0.10	4.59	-0.44	0.11	-0.01	1.00	2.00
Jubilee	2003	0.01	0.02	20.15	8.69	0.00	34.24	2.25	0.17	0.01	1.00	1.00
	2004	0.04	-0.01	21.31	0.24	0.00	41.02	0.20	0.18	0.04	1.00	1.00
	2005	0.04	-0.01	21.46	0.25	0.00	49.79	0.21	0.19	0.04	1.00	1.00
	2006	0.02	0.02	21.82	0.17	0.00	65.22	0.31	0.16	0.02	1.00	3.00
	2007	0.06	-0.02	23.40	0.21	0.25	62.58	0.20	0.17	0.06	1.00	3.00
	2008	0.06	-0.03	22.98	0.35	0.00	75.55	0.21	0.20	0.06	1.00	3.00
Equity	2006	0.10	-0.05	21.12	0.72	0.00	39.36	0.81	0.08	0.10	1.00	1.00

	2007	0.17	-0.12	22.34	0.93	3.00	21.07	1.14	0.06	0.17	1.00	1.00
	2008	0.02	0.04	22.44	1.53	0.02	32.04	0.55	0.10	0.02	1.00	2.00
	2009	0.05	0.00	24.90	0.35	0.00	42.09	0.31	0.11	0.05	1.00	2.00
	2010	0.24	-0.18	24.70	0.28	0.00	62.57	0.49	0.10	0.24	1.00	2.00
	2011	0.09	-0.03	25.32	0.40	0.00	87.53	0.40	0.10	0.09	1.00	2.00
Kenya Airways	1999	0.05	0.02	22.01	0.10	0.00	4.85	1.98	0.72	0.05	1.00	1.00
	2000	0.15	-0.01	22.14	0.39	0.00	6.64	0.37	0.78	0.15	1.00	1.00
	2001	0.17	-0.11	21.93	0.26	0.00	6.65	0.00	0.97	0.17	1.00	1.00
	2002	0.13	-0.08	21.84	0.12	0.00	6.29	-0.05	1.82	0.13	1.00	2.00
	2003	0.20	-0.18	22.11	0.09	0.00	7.33	0.17	1.54	0.20	1.00	2.00
	2004	0.17	-0.12	22.78	0.11	0.00	9.09	0.24	1.03	0.17	1.00	3.00

II. TIMELY LOSS RECOGNITION ANALYSIS DATA

		EPS/P Earnings Per Share/Opening Market Price	R Stock Market Return for the year	R*DR	DR Dummy Variable
Kenya Commercial Bank	2005	0.10299364	0.75	0.00	0.00
	2006	0.01079646	128.00	0.00	0.00
	2007	0.061825726	4.40	0.00	0.00
	2008	0.069122807	-5.25	-5.25	1.00
	2009	0.079139785	-2.75	-2.75	1.00
	2010	0.134634146	1.00	0.00	0.00
Nation Media Group	2007	0.048881789	13	0	0
	2008	0.027607362	-184	-184	1
	2009	0.054225352	-23	-23	1
	2010	0.082352941	39	0	0
	2011	0.113571429	82	0	0
	2012	0.080379747	-17	-17	1
Centum	2007	0.062461538	-2.75	1	-2.75
	2008	0.053109244	-12.75	1	-12.75
	2009	0.033529412	-5.5	1	-5.5
	2010	0.173043478	10.75	0.9348	10.0491
	2011	0.164782609	-9.5	1	-9.5
	2012	0.132592593	-1.15	1	-1.15
Jubilee	2003	0.378846154	34.4	0.00	0.00
	2004	0.1336	8	0.00	0.00
	2005	0.166551724	25	0.00	0.00
	2006	0.176746988	240	0.00	0.00
	2007	0.04244582	-110	1.00	-110.00
	2008	0.066384977	-90	1.00	-90.00
Equity	2007	0.05	11.00	0.00	0.00

	2008	0.07	26.00	0.00	0.00
	2009	0.07	-2.65	1.00	-2.65
	2010	0.11	-9.60	1.00	-9.60
	2011	0.14	11.90	0.00	0.00
Kenya Airways	1999	0.252643948	-0.7	-0.70	1.00
	2000	0.32885906	-1.68	-1.68	1.00
	2001	0.81049936	1.13	0.00	0.00
	2002	0.258596974	-0.64	-0.64	1.00
	2003	0.113122172	2.07	0.00	0.00
	2004	0.324137931	8.21	0.00	0.00

III. VALUE RELEVANCE ANALYSIS DATA

		P Price six months after fiscal year end	BVEPS Equity Book Value Per Share	NIPS Net income Per Share
Nation Media Group	2005	350.00	5.00	15.10
	2006	144.00	2.50	9.09
	2007	140.00	2.50	7.85
	2008	167.00	2.50	9.64
	2009	176.00	2.50	12.46
	2010	301.00	2.50	16.65
Kenya Commercial Bank	2007	165.00	10.00	6.64
	2008	23.50	10.00	12.18
	2009	30.75	1.00	1.49
	2010	22.50	1.00	1.89
	2011	18.60	1.00	1.84
	2012	24.00	1.00	2.43
Centum	2007	26.75	0.50	2.03
	2008	16.05	0.50	1.58
	2009	22.25	0.50	0.57
	2010	22.75	0.50	1.99
	2011	12.75	0.50	3.79
	2012	21.75	0.50	1.79
Jubilee	2003	53.00	5.00	6.74
	2004	66.00	5.00	7.68
	2005	125.00	5.00	10.98
	2006	210.00	5.00	15.54
	2007	180.00	5.00	14.73
	2008	130.00	5.00	15.85
Equity	2006	145.00	5.00	8.32
	2007	304.00	5.00	5.22

	2008	16.20	5.00	10.56
	2009	24.00	0.50	1.14
	2010	25.75	0.50	1.93
	2011	21.25	0.50	2.79
Kenya Airways	1999	7.94	5.00	2.15
	2000	8.77	5.00	6.33
	2001	7.22	5.00	2.94
	2002	6.50	5.00	1.88
	2003	13.27	5.00	0.75
	2004	58.44	5.00	2.82