

**EFFECT OF CROSS-BORDER LISTING ON FINANCIAL
PERFORMANCE OF COMPANIES CROSS-LISTED WITHIN
THE EAST AFRICA SECURITIES EXCHANGES**

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DECLARATION

This research project is my original work and has not been submitted for examination to any other University.

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This project has been submitted with my authority as the university supervisor.

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DEDICATION

To:

My beloved mother Winnie Kariuki, your endless care, moral, material support and otherwise have sustained me to date. Thank you for always encouraging me to chase

my dreams,

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ABBREVIATION AND ACRONYMS

ADR	American Depository Receipts
CAPM	Capital Assets Pricing Model
CBK	Central Bank of Kenya
CMA	Capital Markets Authority
DSE	Dar es Salaam Stock Exchange
EABL	East African Breweries Limited
EAC	East African Community
EADB	East African Development Bank
EASE	East Africa Securities Exchange
EPS	Earnings per Share
KCB	Kenya Commercial Bank
KQ	Kenya Airways
MIMS	Main Investment Market Segment
MPT	Modern Portfolio Theory
NASDAQ	National Association of Securities Dealers Automated Quotations
NMG	Nation Media Group
NSE	Nairobi Securities Exchange
NYSE	New York Stock Exchange
RSE	Rwanda Stock Exchange
USE	Uganda Securities Exchange

ABSTRACT

Corporations can raise their expansion capital domestically or through cross-border listing of shares that facilitate enhancement of firm's visibility and value, and lessens information asymmetry. However, there is scanty evidence on how cross border listing affects a firm's financial performance. The objective of this study was to determine the effect of cross-border-listing on financial performance of companies cross-listed within the East Africa Securities Exchange. This study used an event methodology where financial data spanning three years before and after cross-listing. Data for this study was collected from financial statements of five Kenyan firms which have primary listing in the NSE, and have further cross-listed their shares in the EASE. Using financial ratio analysis, liquidity, profitability, gearing and investor ratios were computed three years before and after cross-listing. Results of this study show that in absolute terms, cross border listing improves financial performance of firms cross-listed within the East Africa Securities Exchange. On comparing the mean between the two periods, the study used T-test and chi-square. The study found out that the movement in absolute mean was not an element of chance as shown by trends in T-statistics in terms of standard deviation and standard errors. Chi-square indicated that the observed difference between pre and post listing was statistically significant. The study concluded that cross listing has significant impact on financial performance of cross-listed firms but at a low level. In line with this conclusion the study recommends that the capital markets policy makers of East African countries not only have to harmonize the regulations, rules and policies but should also host sensitization forums aimed at creating awareness to the EAC companies on the opportunities and challenges that exist for cross-border listing firms.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Businesses require resources to enable them serve and meet their customer's needs effectively. Private financing through owners' equity or use of debt are some of the ways in which firms can finance themselves or their projects in order to meet expansion costs as well as serve the needs of its customers efficiently (Das and Saudagaran, 1998). Firms may resort to raising the additional equity within its boundaries, or beyond their national boundaries. The former is referred to as listing, while the latter is cross-listing. In the recent times, cross-border listing has received growing attention due to the turbulent nature of the business environment.

To achieve their financial goals as well as those of their customers, firms have shifted to diversification and mitigation of costs. Further, the globalization of markets has seen firms listing their stocks not only in the domestic markets, but also in the foreign markets. Karolyi (2006) suggests that advancement in technology and liberalization of capital flows has fostered considerable competition among international stock exchanges for equity listing and trades. Since mid-1980s, the geography of cross-border listings has drastically changed, with U.S. exchanges attracting an increasing share of cross-listed firms (Eun and Sabherwal, 2003).

Financial markets have recently become more integrated with stock exchanges in the global markets working towards reducing barriers in international capital flows, through creating strategic alliances beyond borders. Firms are also constantly trying to overcome market segmentation by implementing financial policies for instance cross-

listing. Errunza and Miller (2000) indicate that Inter-listing enables firms to reduce the cost of their equity capital by mitigating systematic risks, by increasing the level of liquidity, and by improving the information environment. This will assist firms to compete globally, and ensure orderly flow among stock exchanges. The resulting enhancement in market quality not only improves the financial conditions of firms, but also benefits the investors (Das and Saudagaran, 1998).

1.1.1 Cross-border Listing

Cross-border listing is the listing of a security on stock exchanges in more than one country. Foerster and Karolyi (1998) argue that cross-border listing is listing of securities issued by a foreign issuer on a domestic securities exchange. The foreign issue might be listed in its home exchange or on more than one exchange in several different countries.

Firms adopt cross-border-listing to mitigate transaction costs and boost financial performance of firms. Cross-border listing enables firms to enhance their investor awareness and expand their potential investor base on their securities more easily than if it's traded on a single market. Companies pursue cross-border listings to reduce their transaction cost and to boost their market liquidity from foreign listing (Eun and Sabherwal, 2003).

The benefits that firms seek to achieve through cross border listing come as a result of reduction in the firm's bid ask price resulting in an increase in firm's valuation. This therefore leads to improved liquidity, which is more likely to attract more institutional investors. Errunza and Miller (2000) argue that low liquidity is perceived as a

hindrance for institutional investors since it prevents them from holding the firm's stocks due to increased trading costs for holding this security.

1.1.2 Financial Performance

Penman (2007) defines financial performance as the level of performance of a business over a specified period of time, expressed in terms of overall profits and losses during that time. Evaluating the financial performance of a business allows decision-makers to assess the results of business strategies and activities in objective monetary terms. It is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues.

There are different ways to measure financial performance, but all measures should be taken in aggregation. Some of the indicators of financial performance are return on equity, liquidity ratios, asset management ratios, profitability ratios, leverage ratios and market value ratios. Petersen and Kumar (2010) note that the other financial indicators of financial performance include: sales growth, return on investment, return on sales and earnings per share. The common ratios that measure organizational performance can be summarized as profitability and growth ratios: return on asset, return on investment, return on equity, return on sales, revenue growth, stock price, and liquidity.

1.1.3 Relationship between Cross-listing and Financial Performance

Cross border listing accrues a number of advantages that positively impact on the financial performance of the firm. Listing companies across the border lowers a firm's cost of capital, which in turn lowers the cost of borrowing. This further improves financial performance of the cross-listed firm. Khurana (2007) emphasizes that cross-

listed firms enjoy the benefits of expanded global shareholder base. This in turn minimizes the firm's financial risks and thus boosts its financial performance.

Karolyi (2006) conducted a study whose findings revealed that cross-border listing of companies helps to mitigate financial risks and thus improves the profitability position of the firm. Karolyi (2006) argued that cross-border listing enables the firm to improve on its liquidity position in the trading of shares due to reduced transaction costs. Firms that enjoy liquidity in the stock market can take advantage by investing in shares that promise higher returns and thus increased financial performance. Karolyi (2006) further emphasizes that cross-border listing enables the firm to gain prestige and publicity. This increases public confidence and trust to invest in the firm. This further improves the demand for securities and thus subsequently the market share price of the firm. This also increases the company's valuation and thus enhances financial performance.

Khurana et al, (2007) notes that cross border listing enhances credibility of the firm by providing information to the local market and thus ensures the continuous flow of information allowing the capital market to make faster and accurate decisions. Khurana et al, (2007) further suggest that cross listing of firms improves investor awareness and expands its potential investor base on securities more easily as compared to trading in a single market. This attracts more investors and thus increases demand for securities leading to improved financial performance.

This study therefore seeks to find out whether cross-border listing will have any effect on the financial performance of firms cross-listed within the East Africa Securities Exchange.

1.1.4 East Africa Exchanges

The members of the East African Community (EAC) have been pursuing the development of capital markets through regional integration. Although the EAC countries are seeking to fully integrate their capital markets, evidence shows that they are still partially integrated (Onyuma et al, 2012).

The East Africa Securities Exchange market is comprised of four major exchanges. These include Kenya's Nairobi Securities Exchange (NSE), Tanzania's Dar es Salaam Stock Exchange (DSE), Uganda Securities Exchange (USE) and Rwanda Stock Exchange (RSE). There are a total of 100 companies listed in the East Africa Exchanges.

The Nairobi Securities Exchange (NSE) is a market that deals with exchange of securities issued by public quoted companies and the government. The Nairobi Securities Exchange is licensed and regulated by the Capital Markets Authority (CMA). It has the mandate of providing a trading platform for listed securities and overseeing its member firms (NSE, 2014). There are 64 firms licensed under the NSE; under various sectors as provided in Appendix I of this study. The trading activities in this market take place between 10.00am and 1:00pm. This exchange is fully automated (NSE, 2014).

The Dar es Salaam Stock Exchange market was incorporated in September 1966 as a private company. However; the market started operating on April 1998. As at December 2012, DSE recorded a list of 14 listed companies with a market capitalization worth USD 8.4 Billion, making it the second largest in E.A. The

exchange opens for five days in week, from Monday to Friday starting from 10:00am to 12:00 noon. Trading activities are automated (DSE, 2014).

The Uganda Securities Exchange (USE) is the principal stock exchange of Uganda. It started back in June 1997. The USE operates under the jurisdiction of CMA of Uganda which reports to Central Bank of Uganda. The USE started trading in January 1998. At this time the exchange had one listing, a bond issued by the East African Development Bank (EADB). Trading was limited to only a handful of trades per week. As of July 2014, the USE traded 16 listed local and East African companies and had started the trading of fixed income instruments. The exchange is a member of the African Stock Exchanges Association (Onyuma et al, 2012). It opens five days a week (USE, 2014).

The Rwanda Stock Exchange (RSE) is the 4th largest bourse in EAC. The exchange commenced on 31st January 2011. That day coincided with the first day of trading in the stock of Rwanda's only brewery, Bralirwa, which trades under the symbol: BLR. The Rwanda Stock Exchange replaced the Rwanda over the counter exchange that had been in operation since January 2008. There are 6 companies listed in the RSE, in three sectors; that is, banking, manufacturing and commercial and services sectors (RSE, 2014)

1.2 Research Problem

To cope with the changes in the external environment, some firms have opted to undertake cross-border listing to benefit from reduced transaction costs, increased firm's visibility, enhanced investor awareness and thus improved financial performance (Eun and Sabherwal, 2003). Cross-border listing gives a firm

international exposure, thus significantly reducing transaction costs. Errunza and Miller (2000) emphasizes that cross-border listing is believed to increase a firm's visibility as well as investor recognition.

In a bid to raise additional financial resources to serve the growing needs of customers, firms have adopted cross-border listing which is intended to boost financial performance in order to reap high returns for the firm's survival and its customers. In so doing, the firm will improve the level of its customer satisfaction and gain a competitive edge against its rivals (Onyuma et al, 2012).

Studies on cross border listing have been done both locally and globally. This is as a result of a lot of interest that researchers and academicians alike have developed towards understanding the reasons why companies which have opted to cross list their shares in foreign markets and further why cross listing has been on the rise since the last quarter of the 20th century when the process of deregulation of stock markets began in the USA (Wong, Penm and Lim, 2004).

A study by Karolyi (2006) investigated the relationship between cross-border listing and financial performance of listed firms in Asia. The study found that cross-border listing led to improved reduction of costs and thus improved financial performance. Khurana et al, (2007) studied the impact of cross-border listing on financial performance of listed firms in United Kingdom. The results proved that cross-border listing serves effectively in reducing the firms costs related to market segmentation and thus lowers the cost of external financing. Nyaga (2013) investigated the effect of cross border listing on the long term performance of firms listed on the East Africa stock exchanges. The study also found that there was a positive and significant difference on abnormal returns of the share prices after cross listing.

Pagano et al, (2002) did a study on the effect of cross-border listing on corporate governance in Europe. The results revealed that there was a positive relationship between corporate governance and cross-border listing. Aluoch (2012) investigated the impact of cross-border listing on stock returns evidence from the Nairobi Securities Exchange. The study found that cross-border listing on risk was found to be varied across the different sampled stocks on firms listed on the Nairobi Securities Exchange. Odhiambo (2013) conducted a study on the effects of cross border mergers and acquisitions on the value of listed companies in Kenya. This study concluded that cross border mergers and acquisitions improves the financial performance of acquiring companies after testing key financial performance indicators.

From the above empirical studies, it is evident that there are minimal studies on the effect of cross-listing on financial performance of companies cross listed in the East Africa Securities Exchange. This study therefore seeks to fill the gap by attempting to answer the following question: ‘Does cross-border-listing have an effect on the financial performance of firms cross-listed within the East Africa Securities Exchange?’

1.3 Research Objective

The objective of this study is to determine the effect of cross-border-listing on financial performance of companies cross-listed within the East Africa Securities Exchange.

1.4 Value of the Study

The study aims to build on the existing body of knowledge by providing information on how cross-border listing contributes to financial performance of companies cross

listed in the East Africa Securities Exchange. This study will further bridge the knowledge gap on the effects of cross listing, and further depict the relationship between cross listing and financial performance of firms.

This information will thus be useful to firms' decision makers as they will have a basis of whether or not to cross list in foreign securities exchanges. It further seeks to highlight the importance of cross-border listing. It will further be of use to firm management as they seek to source for financing, as they will benefit from lower cost of capital from cross border listing.

Since cross border listing is a relatively new concept especially in the developing world, the findings of this study will be resourceful in policy setting. The empirical findings of this study will be used as a guide by policy makers and other regulatory bodies to encourage locally listed companies to list their companies outside the country.

The study contributes to the existing body of knowledge and provides future reference for academicians on the effects of cross border listing on financial performance of firms. Researchers who might be interested in this area of study might use the findings as a basis for further research. The findings of this study will greatly contribute to the field of Finance, and will form a basis for further research other effects of cross listing that affect the companies' performance.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provided the theoretical literature review, the determinants of financial performance, the empirical review and the summary of the literature review.

2.2 Literature Review

This section covered theories that support the relationship between cross-border listing and financial performance. The theories are namely: modern portfolio theory, capital asset pricing model and tradeoff theory.

2.2.1 Modern Portfolio Theory

This theory was put forward by Markowitz (1952). According to this theory, an investor should seek to maximize his portfolio expected return for a given amount of portfolio risk, or equivalently minimize risk for a given level of expected return by carefully choosing the proportions of various assets. The significance of this theory is that it helps the investor to select his or her investment in such a way as to diversify their risks while not reducing their expected return (Huberman, 1981).

Through a combination of different assets that are not perfectly positively correlated, this theory seeks to minimize the total variance of the portfolio return. This theory assumes that investors are rational and markets are efficient. Assets in any investment portfolio should not be selected individually each on its own merits. It is imperative to consider how each asset changes in price with regard to the way other assets in the

portfolio change in price. Investing is a tradeoff between risk and expected return. Assets with higher expected returns are riskier (Elsas, 2003).

According to Fama and French (2004) the stocks in an efficient portfolio are chosen depending on the investor's risk tolerance, an efficient portfolio is said to be having a combination of at least two stocks above the minimum variance portfolio. For a given amount of risk, MPT describes how to select a portfolio with the highest possible expected return. It is imperative to note that MPT is a form of diversification. Under certain assumptions and for specific quantitative definitions of risk and return, MPT explains how to find the best possible diversification strategy. This theory is relevant in that it will seek to determine the benefits that firms derive from diversifying their portfolios through cross-border listing.

2.2.2 Capital Asset Pricing Model

This theory was propounded by Sharpe (1964), he argued that capital asset pricing model (CAPM) is used to determine the required rate of return of an asset, if that asset is to be added to an already well-diversified portfolio, given that assets have non-diversifiable risk. The model takes into account the asset's sensitivity to non-diversifiable risk also called systematic risk or market risk. This is because the world market risk is an important component of a firm's cost of capital. This is often denoted by the quantity beta (β) in the financial industry, as well as the expected return of the market and the expected return of a theoretical risk-free asset (Shanken, 1985).

According to this theory, an investor might decide to choose an investment ratio based on his or her wealth in a portfolio of risky assets and maintain a cash balance. This

might make the investor to accrue an interest at a risk free rate especially if he had borrowed the money to fund purchase of risky assets in which case there is a negative cash weighting (Robert and Douglas, 2005). In this case, the ratio of risky assets to risk-free asset does not determine overall return. This relationship is clearly linear and thus it's possible to achieve a return from these assets either through investing all of one's wealth in a risky portfolio or through investing a proportion in a risky portfolio and remain with some liquid cash (Fiegenbaum and Thomas, 1988).

The relevance of this theory is that it will seek to determine the benefits that firms derive from diversifying their portfolios in a global setting. Tobin (1958) argues that considering the benefits that accrue from cross-border listing versus the costs the firm is expected to incur, firms record better performance from the cross-border listing. This is expected to improve the financial performance of these firms.

2.2.3 Trade-off Theory

Trade off theory refers to the idea that a firm chooses how much debt finance and how much equity finance to utilize through conducting a cost benefit analysis. Meckling and Jensen (1976) considered a balance between the dead-weight costs of bankruptcy and the tax saving benefits of debts. In most cases, agency costs are inclusive of the balance. This theory is set up as a competitor theory as compared to the pecking order theory of capital structure (Ross, 1976).

According to Fama and French (2002), a decision maker running a firm evaluates the various costs and benefits of alternative leverage plans. Often it is assumed that an interior solution is obtained so that marginal costs and marginal benefits are balanced.

An important purpose of the theory is to explain the fact that corporations usually are financed partly with debt and partly with equity.

Jegadeesh (2000) argues that there is an advantage to financing with debt. These include the tax benefits of debt, cost of financing with debt, the costs of financial distress including bankruptcy costs of debt and non-bankruptcy costs etc. The marginal benefit of further increases in debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value focuses on the trade-off when choosing how much debt and equity to use for financing (Fiengenbaum and Thomas, 1988).

This theory is considered important as it enables the firm managers to make the appropriate financing decision that is either growing of debt or additional equity through cross-listing. Cross-listed firms are more likely to use equity financing due to the increased transparency of the host countries accounting system (Burns, Francis, & Hasan, 2007).

2.3 Determinants of Financial Performance

Financial performance of a firm is affected by multiple external and internal factors. The internal factors are firm specific, while the external factors could be similar for all or most firms. The external factors include market preferences and perceptions, legal and regulatory system of a country and economic condition. The internal factors include corporate governance, ownership structure, size of the firm and capital structure.

2.3.1 Economic Situation

A country's economic situation may affect a firm's financial performance either negatively or positively. Further, the cost of debt can negatively influence the firm's capability to generate finances and invest in projects (Ntim, 2009).

The economic condition of a firm may further be determined by the characteristics in which a firm operates and the firm's position relative to its competitors (Scherer, 1980) and the quality and quantity of the firms resources.

2.3.2 Legal and Political System

Stability of government policies will in a great way impact the firms' financial performance. An example of political element that could affect firms' performance is increase or decrease in tax and political stability.

The legal framework set up by legislators will either impact positively or negatively to the firms' financial performance. Legal factors include international trade regulations and restrictions, consumer protection and national employment laws (Rothaermel, 2012).

2.3.2 Firm Specific Factors

Ownership structure has been identified as a possible determinant of financial performance of a company. The phenomenon has been empirically tested on various occasions that internal ownership results in long-term firm performance (Reddy and Gordon, 2010). It has further been noted that concentrated ownerships and institutional ownerships lead to better control and monitoring of the board of directors and somehow force them to undertake profitable projects to ensure future earnings

(Bhagat and Bolton, 2008). However, investment by the public in small shareholdings does not support the firms' long-term plans. This is because these owners are mostly interested in the short-term profits and not the overall growth of the company. As a result, the ownership structure should be carefully balanced for a firm to perform well.

Corporate governance practices are the standards that guide how a firm sets its objectives, develops its strategies, and monitors and reports its performance while managing its risk (Reddy and Gordon, 2010). Good corporate governance fosters better financial performance of firms. According to King and Segal (2004), firms choose to cross-list their shares because it represents an opportunity to improve a firm's corporate governance.

Pandey (2005) indicates that the size of the firm affects its financial performance in many ways. Large firms can exploit economies of scale, and are thus more efficient than smaller ones. However, as firms expand, they may suffer inefficiencies that may result in a negative impact on their financial performance.

Capital structure of the firm also influences a firm's financial performance. Capital structure is defined as the ratio of debt versus equity financing in a firm. The cost of raising capital is a major determinant of a firm's financial performance. A company that has high debt ratio faces bankruptcy risk, but has a tax advantage. Internally generated finances, on the other hand, attract a higher opportunity cost. As such, there should be an appropriate capital structure that generates the maximum profit for the organization.

In their study Edison et al, (2008) on cross-border listings, capital controls, and equity flows to emerging markets they noted four categories of firm specific financial factors. These factors are the profitability ratios, liquidity ratios, gearing ratios and investor ratios that affect the capital controls of a firm if it adopts cross-border listing.

Profitability ratio for cross-border listing companies is measured using Earnings per Share (EPS) which is the portion of a company's profit allocated to each outstanding share of common stock. Liquidity ratio for companies that are cross listing liquidity is measured using current ratio. Liquidity ratio measures a company's ability to pay short-term and long-term obligations. Gearing ratio measures the contribution of financing by owners compared to financing by the firms creditors. It is the total debt divided by total shareholder's equity. The larger the portion of owners' equity, the lesser the risk faced by creditors. Investor/Valuation Ratios is the dividend yield which is the dividend per share divided by market price per share. The overall performance of cross border listed firms can be accessed by the company's market share capitalization which is the total number of shares multiplied by the market value of those shares.

2.4 Empirical Studies

Nyaga (2013) investigated the effect of cross border listing on the long term performance of firms listed on the East Africa stock exchanges. The study adopted an event study research design to analyze firms' long-term performance of the cross listed stocks which is the impact of regional cross-listing on firm long-term performance. The population of interest for this study comprised of all firms with primary listing in the Nairobi Securities Exchange and also those that have undertaken cross-listing within the East Africa securities exchange market. Data was analyzed

using the Fama French three factor model and paired t-test. Results were presented in tables. The study found that there were abnormal returns after cross listing of the companies' shares in the regions stock exchanges. The study also found that there was a positive and significant difference on abnormal returns of the share prices after cross listing.

Bacidore and Sofianos (2012) did a longitudinal survey of 45 sampled firms in Europe, secondary data sources for ten years was used and data was analyzed using descriptive statistics. The objective of this study was to assess the correlation between cross-listing and financial performance of firm. The results conclude that there was a positive relationship between cross-listing and financial performance of firms as a result of reduced transactional costs.

Mwangi (2007) did a study to determine the short term and long term effect of cross border listing announcements on companies listed on the NSE and their post listing performance. The author examined the average abnormal returns surrounding the announcements of the five cross listings achieved, to determine whether they were statistically different from zero using the t-test statistic. To examine the post-listing performance of the cross-listed firms vis-à-vis the control firms, selected on the basis of market/price-to-book values, both sets of firms' post-listing average abnormal returns were obtained and tested for significance using the t-test. Also, their post-listing liquidity was examined using the turnover ratio. In the short-term (7-day) event window, the results indicate that cross-listing announcements have no impact on stock returns, however, in the long-term (61-day) event window; there is reasonable evidence to indicate that cross-listing announcements have a statistically significant negative effect on stock returns. The results also indicate that cross-listed firms'

returns outperform those of the non-cross-listed firms with the same market/price-to-book values in both the post-listing short-term (7-day) and long-term (61-day) periods, but the control firms have a higher turnover ratio over the same period.

A study that was done by Tripathy and Jha (2006) on Indian stock market reaction to international cross-listing investigated the impact of cross-listing of ADRs on the Indian stock market for the period June 2004 to July 2009. The results indicate a significant negative abnormal local market return on the ADR listing day. Six out of nine companies shows increased volatility of local returns after the cross listing and therefore they conclude that ADR listings have no tangible benefit impact to the local shareholders.

Adelegan (2006) investigated the impact of the regional cross-listing of stocks on firm value in sub-Saharan Africa. The study did a descriptive survey to find out if there was a relationship between regional cross-listing of stocks and firm value in sub-Saharan Africa. The findings of the study showed positive abnormal returns around the date of the regional cross-listing of stocks, the positive announcement period effect, together with the normal post cross-listing performance.

Amihud and Mendelson (2009) examined French stock exchange using six-year data from 1990 to 1995 on daily basis to find the relationship between systematic risk and cross listing. The study used an explorative survey and secondary data was used for analysis. Data was analyzed using capital asset pricing model. The results concluded that investors should invest in stocks, which have low systematic risk, and low market price and sell the stocks that have high systematic risk and high in market price.

Njuga (2011) investigated on the relationship between a risk and return relationship for companies operating in the Main Investment Market Segment (MIMS) of the Nairobi Stock Exchange. The study was carried out on an exploratory basis to establish whether there exist any differences in the risk- return patterns of quoted companies in the four sectors of the MIMS market segment of the NSE. Thirty four (34) companies were selected to comprise the sample of study for the period January 2005 to December 2009. Historical monthly stock price data was used, translating into 60 sample months for use in data analysis. Descriptive statistics were used in analysis of data as most of the data collected is quantitative in nature. The study showed that there is a link between the sectors in MIMS in which for every period when one sector is having poor returns, another sector will either benefit immensely or be adversely affected.

Aluoch (2012) investigated the impact of cross-border listing on stock returns evidence from the Nairobi Securities Exchange. The period covered was between 2001 and 2011. The sample consisted of seven Kenyan firms which had cross-listed in the neighboring stock exchanges between 2001 and 2011. Event study methodology was used to analyze the impact of cross-border listing on stock returns. The study finds positive average abnormal returns around the date of the cross-border listing. The study also finds insignificant positive cumulative average abnormal returns around the cross-border listing date. The impact of cross-border listing on risk was found to be varied across the different sampled stocks.

Odhiambo (2013) conducted a study on the effects of cross border mergers and acquisitions on the value of listed companies in Kenya. The study was undertaken to establish why organizations undertake the inorganic mode of expansion that is cross

border mergers and acquisitions. The analysis for this study was based on operating measures in relation to Kenyan based acquiring companies. To conduct a uniform research and arrive at an accurate conclusion, this study was restricted only to Kenyan companies which have been involved in the cross border acquisitions within the East African region. An event study methodology was taken to evaluate the abnormal performance following a cross border merger or an acquisition. The study revealed that firms engaged in cross border mergers and acquisitions exhibit financial gains from these transactions. This study thus concluded that cross border mergers and acquisitions improves the financial performance of acquiring companies after testing key financial performance indicators.

Baker and Nofsinger (2013) studied also the effect of cross-listing on the value of stock prices. A sample of 100 was done on listed firms in St Louis Missouri. An exploratory study was carried out to establish the relationship between the variables. Secondary data sources for five years were used. It was found that the relationship was statistically significant. The reports showed that the benefits of cross-listing outdid the costs involved in cross-listing.

2.5 Summary of the Literature Review

From the above review, the study concludes that there exists a statistically significant relationship between cross-border listing and financial performance of firms. This is evident both from local and global studies discussed in this study. This is in line with the hypothesis of this study that predicts a positive relationship between cross-border-listing on financial performance of companies in East Africa.

Although studies have been done in on cross border listing, little focus has been made on the effect of cross-border-listing on financial performance of companies in East Africa. This study found the need to answer the research question: what is the effect of cross-border-listing on financial performance of companies cross listed in the East Africa Securities Exchanges?

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section covers the research methodology that will be used for this study. It consists of the research design, population, sampling, data collection, measurement of variables and data analysis.

3.2 Research Design

The study will use event study survey to explain the relationship between variables. An event study survey explains the relationship between variables without their manipulation (Denscombe, 2014). This is because this study seeks to establish the effect of cross-border-listing on financial performance of companies cross-listed in the East Africa Securities Exchanges. This study will use document analysis of secondary data sources.

3.3 Study Population

According to Mugenda and Mugenda (2003), a population is a complete set of individuals, cases or objects with common observable characteristic. The target population of the study will include all the listed firms in Nairobi securities Exchange. A total of 64 firms were listed in the NSE as at December 2014.

3.4 Sampling Design

Cooper and Schindler (2004) describe sampling design as the process of selecting objects in a study to present the whole population. The sample for this study will

consist of NSE listed firms that have cross-listed within the East Africa Securities Exchange between the years 2001 to 2014. The study will adopt an event study method to examine the effect of cross-border listing on financial performance of cross-border listed firms before and after cross listing. As at December 2014, a total of 8 firms had cross-border listed from Kenya to other stock markets within the EAC, but for this study, those companies by definition have: (i) primary listing in the NSE and also have; (ii) data spanning 10 years, with 36 months prior and 36 months subsequent, excluding the year of cross-border listing will be then selected from the list. Only 5 firms meet this criterion.

3.5 Data Collection

Secondary data collected from the audited financial statements of the sampled firms shall be collected using a data collection form for use in this study. The financial statements will be used for comparison of the financial performance 36 months pre and post cross-border listing.

3.6 Data Analysis

3.6.1 Analytical Model

Data collected shall be analyzed to determine the effect of cross-border listing on financial performance. This is in line with the Tripathy and Jha (2006) who indicated the importance of determining financial performance as a key measure in evaluating the performance status of cross-border listed firms in the East Africa Securities Exchange.

T-test and chi square are statistical tests used to compare means of two groups. The purpose of T-statistics was to compare whether the movement in absolute mean of the two periods is a matter of chance while Chi-square was used to test the statistical significance between the two periods. In this study the two groups are post and pre listing periods. These tests were used so as to find out whether observed difference between pre and post cross border listing is statistically significant.

Analysis of four measures (Profitability Ratio, Liquidity Ratio, Gearing ratio and Investor/Valuation Ratio) was objectively weighted and summed up to a mean for each ratio in the pre and post listing periods. Then the means for these two groups (post listing and pre listing) were subjected to statistical tests.

The study focused on the independent variables below:

X_1 = Profitability Ratio

X_2 = Liquidity Ratio

X_3 = Gearing ratio

X_4 = Investor/Valuation Ratio

e = Error term

Where

- i. Profitability ratio will be measured through,

$$\frac{\text{Net income - Dividends on preferred stock}}{\text{Average outstanding shares}}$$

- ii. Liquidity ratio will be in terms of Current ratio = current assets/current liability

- iii. Gearing ratio = Total debt/Total shareholder's equity
- iv. Investor ratio = Dividend per share/Market price per share

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 financial performance of firms cross listed on the East African Securities Exchanges.

4.2 Descriptive Statistics

This study identified companies cross listed in the East African Securities Exchanges so as to determine the effect of cross-listing on the financial performance, which have their primary listing in the NSE, and further have data spanning three years pre and post cross border listing. The data analysis for this study was carried out using descriptive statistics. The study subjected the data to testing and conducted a t-test to establish the significance of differences of financial performance before and after cross-listing.

Table 4.1: Date of Listings

Company	Primary Listing	Secondary Listing in:		
		DSE	USE	RSE
	NSE			
Nation Media Group	1973	2011	2010	2010
Kenya Commercial Bank	1988	2008	2008	2009
EABL	1954	2005	2001	
Jubilee Holdings Limited	1973	2006	2006	
Kenya Airways	1996	2004	2002	

Source: NSE, DSE, USE, RSE

The data collected focused on four measures of firms' financial performance. 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 four dimensions of firm financial performance namely profitability ratio, liquidity ratio, gearing ratio and valuation ratio at 0.05 significance level.

Table 4.2: Period of data collection and analysis for the cross listed companies

Company	Period of Study	
	Pre cross listing	Post cross listing
Nation Media Group	2007 to 2009	2011 to 2013
Kenya Commercial Bank	2005 to 2007	2009 to 2011
East Africa Breweries Limited	1998 to 2000	2002 to 2004
Jubilee Holdings Limited	2003 to 2005	2007 to 2009
Kenya Airways	1999 to 2001	2003 to 2005

Source: NSE

4.3 Financial performance before and after cross listing

4.3.1 Profitability Ratio

The study sought to find out the trend of profitability ratio before and after cross listing. It was observed that apart from Kenya Airways, all the other four companies profitability ratio increased. From the study findings, it was found out that there is an absolute difference between profitability before and after companies list

Table 4.3: Profitability Ratio

Company	Before Listing	After Listing
Nation Media Group	.1157	.2145
Kenya Commercial Bank	.1216	.3476
East Africa Breweries Limited	.1658	.2637
Jubilee Holdings Limited	.0443	.0609
Kenya Airways	.1842	.0959

Source: *Data analysis (2015)*

According to Davis-Friday et al. (2004), cross-listed firms are expected to access a large pool of capital that can be used to develop the company and improve its financial performance. This is especially true where companies cannot easily attract large amounts of new equity capital in their home country. The findings of this study are in agreement with the above theory.

With regard to the T-test statistics, there is an observed difference between the mean before and after cross listing in the table below. The standard errors and standard deviations increases. This trend in standard deviation from .0542474 to .1185103 and also of standard error mean from .0242602 to .0529994 is not an element of chance.

Table 4.4: Profitability T-test statistics

	Mean	N	Std. Deviation	Std. Error
Before	.126320	5	.0542474	.0242602
After	.196520	5	.1185103	.0529994

Source: *Data analysis (2015)*

These findings show that despite the increase in profitability, there was no significant difference in the results before cross-listing. The study finds that pre cross listing profitability has a mean of 0.126320 and after cross-listing a mean of 0.196520.

On the Chi-square statistics, the study sought to find out the statistical difference between profitability before and after listing as in the table below.

Table 4.5: Profitability Chi square-statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Before	5	.126320	.0542474	.0443	.1842
After	5	.196520	.1185103	.0609	.3476

Source: *Data analysis (2015)*

The study found out that at 95% confidence interval the chi square value is less than 0.05 that is .000 before listing and .000 after listing indicating that cross border listing is statistically significant to profitability ratio.

Table 4.6: Profitability Chi square-Test statistics

	Before	After
Chi-Square	.000 ^a	.000 ^a
Df	4	4
95% Confidence Interval	Lower Bound	.549
	Upper Bound	1.000
a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.		

Source: *Data analysis (2015)*

4.3.2 Liquidity Ratio

The study sought the effect of liquidity ratio before and after cross listing. The study found out that liquidity of the firms increased apart from liquidity of Kenya airways.

Table 4.7: Liquidity Ratio

Company	Before Listing	After Listing
Nation Media Group	1.2460	2.4575
Kenya Commercial Bank	.7758	1.1605
East Africa Breweries Limited	.9821	2.4545
Jubilee Holdings Limited	1.1766	2.0297
Kenya Airways	1.5928	.8391

Source: *Data analysis (2015)*

Karolyi (2004) cited that firms conducting cross border listing will have more source of funding, and the funds will be relatively cheap. The shares of the firm will become more liquid because there will be a wider market in which to trade from. Increased liquidity will improve a company's market capitalization. The general observation from the table above is that the firm's liquidity increases with the decision to cross list apart from the case of one firm.

On the T-test, the study compared the mean difference between liquidity ratios before and after cross listing and found out that standard deviation increased from .3058228 to .7491722.

Table 4.8: Sample Liquidity Ratio T-test Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Before	1.154673	5	.3058228	.1367681
After	1.788247	5	.7491722	.3350400

Source: *Data analysis (2015)*

This movement indicates that the observed increment in liquidity mean difference between pre listing and post listing is not an element of chance. Additionally, the results of the study yielded the results that showed on average the liquidity of the firms increased in small magnitude. The study further conducted T-test to compare the mean differences and found out that the liquidity ratio standard deviation increased and the standard error mean increased from .1367681 to .3350400.

From the chi square statistics, the study found out that cross listing is statistically significant because the chi square value is less than 0.05 at 95% confidence interval.

Table 4.9: Liquidity Ratio Chi- statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Before	5	1.154673	.3058228	.7758	1.5928
After	5	1.788247	.7491722	.8391	2.4575

Source: *Data analysis (2015)*

For the liquidity ratio it was found out that the observed mean difference from descriptive statistic indicated that there was a general increase on the mean.

Table 4.10: Liquidity Ratio Chi-test statistics

	Before	After
Chi-Square	.000 ^a	.000 ^a
df	4	4
95% Confidence Interval Lower Bound	.549	.549
Upper Bound	1.000	1.000
a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.		

Source: *Data analysis (2015)*

This difference observed was found to be statistically significant at 95% confidence interval because the chi-square value before and after cross listing of 0.000 was less than the p-value of 0.05.

4.3.3 Gearing ratio

On gearing ratio, the study found out that cross listing reduced the gearing ratio of companies but for Kenya Airways cross listing increased the ratio.

Table 4.11: Gearing Ratio

Company	Before Listing	After Listing
Nation Media Group	.6435	.4154
Kenya Commercial Bank	.4187	.2110
East Africa Breweries Limited	.5047	.3748
Jubilee Holdings Limited	.9237	.8414
Kenya Airways	1.0735	2.6466

Source: *Data analysis (2015)*

Gearing ratio was observed to reduce while comparing the average mean of companies under study between pre and post listing. This is in line with the observation of Inder et al, 2006, who observed that cross-listing is a mechanism through which firms can improve their access to lower-cost external financing and consequently can invest in potentially profitable projects.

On average, the t-test shows that cross listing increases the gearing ratio standard deviation from .2780226 to 1.0049148. The study found an increase in standard error mean from .1243355 to .4494116.

Table 4.12: Gearing Ratio T-test statistics

	Mean	N	Std. Deviation	Std. Error Mean
Before	.712820	5	.2780226	.1243355
After	.897840	5	1.0049148	.4494116

Source: *Data analysis (2015)*

The variation in standard deviation and standard error indicates that the trend is not as a result of chance.

The study further tested the statistical significance of gearing ratio cross listing. The study found out that chi-square value is at 0.000 which is less than the p-value of 0.05 at 95% confidence interval.

Table 4.13: Gearing Ratio Chi statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Before	5	.712820	.2780226	.4187	1.0735
After	5	.897840	1.0049148	.2110	2.6466

Source: *Data analysis (2015)*

The total number of samples were 5 with a maximum score before cross listing of 1.0735, and after cross listing of 2.6466. The minimum scores before and after cross listing were .4187 and .2110 respectively.

Table 4.14: Gearing Ratio Chi-test statistics

	Before	After
Chi-Square	.000 ^a	.000 ^a
Df	4	4
95% Confidence Interval Lower Bound	.549	.549
Upper Bound	1.000	1.000
a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.		

Source: *Data analysis (2015)*

This increment observed was found to be statistically significant at 95% confidence interval because the chi-square value of gearing ratio was at 0.000 which is less than the p-value of 0.05.

4.3.4 Valuation ratio

According the data collected for the study cross listing valuation of firms improved for the five firms under the study. Firms which have cross-listed are no longer owned by citizens of one country. Furthermore, media interest in the hosting country will additionally lead to visibility and familiarization of the firm in that country. Cross-listed companies are also likely to get more media coverage perhaps due to their large size.

Table 4.15: Valuation Ratio

Company	Before Listing	After Listing
Nation Media Group	.9761	1.2139
Kenya Commercial Bank	3.1324	5.0899
East Africa Breweries Limited	6.6169	13.4151
Jubilee Holdings Limited	8.8992	9.1938
Kenya Airways	1.2124	3.4456

Source: *Data analysis (2015)*

The findings in the above table on the valuation ratios of companies before and after cross listing converge with findings on a study of the impact of the international cross-listing of stocks by firms from emerging markets (Levine and Schmukler, 2003).

The t-test measured the mean difference between valuation mean before and after cross listing. The study found that valuation standard deviation was 3.4777014 before cross listing and 4.8562266 after cross listing. The study also observed that standard error mean increased from 1.5552753 to 2.1717705.

Table 4.16: Valuation Ratio T-test statistics

	Mean	N	Std. Deviation	Std. Error Mean
Before	4.167400	5	3.4777014	1.5552753
After	6.471660	5	4.8562266	2.1717705

Source: *Data analysis (2015)*

The study also notes that T-test values of standard deviation and standard error improved meaning that the increment the observed increment is not as a result of chance.

The Chi-square test sought to find out the statistical significance of the observed mean difference. The study found out that at 95% confidence interval the chi square value was less than 0.05 at .000

Table 4.17: Valuation Ratio Chi-statistics

Descriptive Statistics					
	N	Mean	Std. Deviation	Minimum	Maximum
Before	5	4.167400	3.4777014	.9761	8.8992
After	5	6.471660	4.8562266	1.2139	13.4151

Source: *Data analysis (2015)*

The total number of samples was 5 with a maximum score before cross listing of 8.8992, and after cross listing of 13.4151. The minimum scores before and after cross listing were .9761 and 1.2139 respectively.

Table 4.18: Valuation Ratio Chi-test statistics

	Before	After
Chi-Square	.000 ^a	.000 ^a
df	4	4
95% Confidence Interval Lower Bound	.549	.549
Upper Bound	1.000	1.000
a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.		

Source: *Data analysis (2015)*

This increment is statistically significant as shown by a chi-square value of 0.00 which is less than the p-value of 0.005.

4.4 Findings and Discussion of Results

From the descriptive statistics, the study found out that there is an observed difference between pre and post listing periods. The study further conducted T-tests to compare the means, standard deviations and standard errors. From the study profitability ratios standard deviation improved from .0542474 to .1185103 while standard errors mean increased from .0242602 to .0529994. This increment was found to be statistically significant because the chi square value of profitability ratios at 0.000 before and after cross listing was less than the p-value of 0.05.

For the liquidity ratio it was found out that the observed mean difference from descriptive statistic indicated that there was a general increase on the mean. The study further conducted T-test to compare the mean differences and found out that the liquidity ratio standard deviation increased from .3058228 to .7491722, while the standard error mean increased from .1367681 to .3350400. This difference was found to be statistically significant at 95% confidence interval because the chi-square value before and after cross listing of 0.000 was less than the p-value of 0.05.

The study further found out that gearing ratios had decreased from the descriptive statistics but the T-test noted a general improvement in the standard deviation of gearing ratio from .2780226 to 1.0049148 and also the standard error means increased from .1243355 to .4494116. This increment was observed to be statistically

significant at 95% confidence interval because the chi-square value of gearing ratio was at 0.000 which is less than the p-value of 0.05.

The valuation ratios were found to have a general improvement from the descriptive statistics. However the study conducted a T-test to compare the means before and after cross listing, the study found out that the standard deviation of valuation ratios increased from 3.4777014 to 4.8562266 and also the standard errors mean increased from 1.5552753 to 2.1717705. This was found to be statistically significant at 95% confidence interval because the chi square value of 0.000 was less than a p-value of 0.05.

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 & Interpretation

Profitability ratio data was collected and the mean profitability ratio of each selected company was compared for pre and post cross listing periods. The absolute descriptive statistic value indicated that there is an observed difference between profitability ratios before and after listing. The T-test indicated that the difference is brought about by a difference in standard deviation and hence the standard error means. Chi-square showed that the observed difference is statistically significant.

Movement of profitability ratios indicates that there was a statistically significant improvement of profitability ratios. The results are seen to be in agreement with Miller (1999) when he notes abnormal returns around the announcement date of American Depository Receipts (ADR) and also finds that market reaction is related to choice of exchange, geographical location and avenue for raising equity capital.

Further, Inder et al. (2004) confirms similar results when they assessed whether cross-listing leads to a higher firm growth and found externally financed firm grew following cross-listing. The cross-listed firms exhibited greater externally financed firm growth in comparison to a matched sample of non-cross-listed firms. After cross

listing, cross listed firms experience higher externally financed growth rates than the matched sample of non-cross-listed firms. Cross-listing can therefore act as a mechanism through which firms can improve their access to lower cost of external financing and consequently use the funds to invest in viable projects.

In absolute value, the liquidity ratio of the firms under study showed an increase when the average mean of pre and post listing was compared. In addition the T-test statistic indicated that the mean difference is important as indicated by improvement in the standard deviation and standard errors mean. Chi-square values show that the difference is statistically significant. Liquidity ratio movement indicates that statistically it is significant for a firm to cross list. These results are in agreement with Karolyi (2004) when he cited that firm conducting cross border listing will have more source of funding, and the funds will be relatively cheap. The shares of the firm will become more liquid because there will be a wider market in which to trade from. Increased liquidity will improve a company's market capitalization.

Further, Karolyi (2004) noted that corporate managers that have initiated cross listings for their firms cite liquidity as a main motivator. Information based traders seek to camouflage their information by timing their trading when the markets are thick with other liquidity traders. This means that since all are similarly motivated, they are strategic in selecting their trading location in the thickest of the competing markets. This explains the predictions about clustering of trading volume around market open and closes, about clustering of trading volumes in some markets.

Gearing ratio was observed to reduce while comparing the average mean of companies under study between pre and post listing. T-test findings show that there is a general improvement of the standard deviation and standard errors mean, reduction

in gearing ratio is statistically significant as shown by a chi-square value of 0.00 which is less than 0.05. The gearing ratio movement indicates that there is a statistically significant effect of cross listing on financial performance of firms. This is similar with findings of a study that notes cross listing improves firm's access to lower cost of external financing.

Cross-listing is a mechanism through which firms can improve their access to lower-cost external financing and consequently can invest in potentially profitable projects (Inder et al, 2006). These authors note that cross-listing contributes to firm's value as it limits the ability of controlling shareholders to extract private benefits of control. Cross-listing may serve to counter the effects of market segmentation. Stulz (1999) points out that these barriers serve to segment domestic capital markets. The outcome here is that domestic investors in segmented domestic capital markets require a risk premium for bearing all the risk of the economic activities of that country (Inder et al, 2006). When firms from these segmented markets cross-list, theory anticipates the stock prices for these firms to rise and consequently their cost of capital to decline as an additional built-in risk premium compensating for these barriers dissipates (Karolyi,1996).

When comparing the absolute value of investor valuation of shares for the companies under study for the period's pre and post listing it was found out that valuation ratios improved. The study also notes that T-test values of standard deviation and standard error improved meaning that the increment the observed increment is not as a result of chance. This increment is statistically significant as show by a chi-square value of 0.00 which is less than the p-value of 0.005. The movement of this financial performance measure is seen to converge with findings on a study of the impact of the

international cross-listing of stocks by firms from emerging markets (Levine and Schmukler, 2003). They noted that investors acquire costly information and highlight the importance of inter-market information linkages using data from the Mexican stock market.

Findings from the emerging countries show that the impact of cross-listing reflects the costs of order flow fragmentation and the benefits of increased competition; and cross-listing is associated with positive excess returns that accrue largely to stocks open to foreign investors prior to cross-listing. This converges with this study finding where results show that investor valuation ratio did not only improve but also are statistically significant.

From this interpretation the study found out that cross border listing improves the absolute values of profitability ratios, liquidity ratios, gearing ratios and valuation ratios, further this improvement is observed to be statistically significant using T-test and chi-square statistics.

5.3 Conclusion

This study has showed the effect of cross-border listing on the financial performance of listed firms in EAC. It was found out that cross listing leads to better profitability, increased liquidity, lower gearing ratio and higher investor valuation. The study found that cross listing has a statistically significant impact on their financial performance. The study concluded that every company in East African region needs to know that it has access to capital markets beyond the geographical boundaries of their country and it can list in all the three East African capital markets.

Despite this general trend from the empirical work, it seems that the overall cross border listing activity may increase even further in the future. Cross border listing is seen to enhance a company's profitability, liquidity and valuation. It further impacts on the gearing ratio of the companies, implying that reliance on debt reduces with cross border listing. Further, cross border listing enhances other indirect benefits.

When comparing the firm's financial performance three years before the companies cross-listed, and three years after cross listing, liquidity improved. This may be as a result of increased cash brought in by the issue of new shares. When firms offer their shares for sale, money is injected if the shares are fully subscribed. It was evident from the results that in optimal situations, increased availability of funds leads to more profitability of a firm.

From the study, it is evident that cross listing reduces the gearing ratio of firms. This is because there is increase in the level of equity thus relieving the firm from the threat of takeovers by the creditors. This ensures that there is no excess control in decision making by third parties.

The general increase in profitability after cross listing was not however commensurate with the increase in the number of shares outstanding. There was increase in the number of shares at a higher rate than the increase in the profitability of the firm. This is what is known as the dilution effect. This explains why the liquidity ratio of Kenya Airways declines with the decision to cross list.

This study has showed the effect of cross-border listing on the financial performance of listed firms in EAC. On average, the study found out that cross listing leads to

better profitability, liquidity, lower gearing ratio and higher investor valuation. The study further found that cross listing has significant impact on their financial performance but at a low level.

From the results of the study, it can be generally concluded that cross listing generally improves firms' financial performance. This is mainly due to greater access to funds, which may be used in reinvestment and growth in the companies. This further translates to improved financial performance of the firms.

The study further concluded that every company in East African region needs to know that it has access to capital markets beyond the geographical boundaries of their country and it can list in all the three East African capital markets.

5.4 Policy Recommendation

The study found out that cross border listing encourages market integration. The study recommends that policy makers of East African countries not only have to harmonize the regulations, rules and policies but should also host sensitization forums aimed at creating awareness to the EAC companies on the opportunities and challenges that exist for cross-border listing firms.

Further the study policy makers and stock market authorities in EAC should provide incentives to promote companies to cross-listing since it may promote the integration of the regions capital markets. Cross border listings are the building blocks for the construction of regional markets which in turn help standardize pricing of stocks, and reduce investors transaction and information costs when forming regional portfolio allocation.

The government and other institutions like the Capital Market Authorities who are in charge of formulating policies have a reason also to be concerned about the effects of cross-listing on the financial performance of a firm. The findings of this study will help them understand the effect of regional integration; and further decide if it is of any importance.

The study further found out that firms will also be encouraged to make cross-listing one of their key objective. This is mainly due to cost savings that they benefit from, which in the long run will lead to improved financial performance of the firms.

Further, an in-depth study on the advantages and disadvantages of cross listing will enable management of firms to make appropriate decisions that will seek to maximize shareholders' funds.

5.5 Limitations of the Study

The sample size is too small, a higher sample size would enhance the results of the study but there are only 8 cross listed firms whose primary listing is in the East African Securities Exchanges. Further, only five out of the eight cross listed companies fit into the inclusion criteria of this study. The exclusion of the three cross listed companies could have altered the ultimate results of this study.

There were limitations in terms of scope since it only concentrated on only cross listed firms in the East African region listed firms and ignored firms listed in the other domestic stock exchanges. This may limit fair findings that could have been gotten if all firms were to be access on their financial performance before and after listing.

The study used financial performance as the proxy for firm performance ignoring other variables such as market and management variables. This limited the scope of the study. Further the study did not access the macro-economic variables at the time of cross listing which would have affected interpretation of results.

The study used a data collection schedule where only audited financial reports were used for data collection. This limited the study because no interaction was possible to probe more on the data gotten. Further, the major limitation that affects this study directly is the dependence of accuracy and trustworthiness data compiled. The output of data may be inaccurate if the data used was untrustworthy or inaccurate.

It was also not possible to study firms at the same time period because they did not cross-list concurrently. Also in respect to cross listing, firms studied did not list their securities at the same time in the East African stock markets and not all have listed in all the exchanges.

The study used the event case study methodology where only data for the period under the study was considered necessary. This affected has an impact on the dynamism of the firms in terms of financial performance trends. Some of the limitations of using the event study methodology include the assumption of an efficient market, short-term impact time estimation of an event and sensitivity to research design.

5.6 Recommendations for Further Studies

The study recommends for other studies focusing on the other determinants of firm performance with regard to the East African context, such as 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, and further act as a guide to management of firms in ways of enhancing their financial performance.

The study further recommends for a study on why there are a few companies in EAC region that have chosen cross-border listing. This implies that the advantages or benefits of cross border listing should be analyzed in detail to assess why firms' may choose to cross list. Further, the disadvantages should also be analyzed, which will further determine the firms' decision to cross list in foreign markets. Additionally, there's need to research on the measures that would need to be applied to ensure regional integration of the capital markets to ensure the growth of the cross listing trend within the EAC.

Further research should also be done for the duration after the three years after cross listing to assess the long term effects on their financial performance. This is because the study did not cover all the cross-listed firms, as their duration as cross listed firms was not significant to show the effects of cross listing on their financial performance. It is also expected that more companies may opt to cross list within the East Africa Securities Exchange. Researchers should thus focus on the cross listing trend and assess the effect on financial performance of firms, among other variables that may result as a result of cross listing. These may include the effect of cross listing on valuation of the firms, stock prices, and liquidity.

A further study needs be carried out to find out how performance of the East Africa Securities Exchanges relate to each other. This will benefit investors when making investment decision on which markets they need to diversify their investment. This

will ensure that the investors reduce their risk and maximize the return on their investments.

A research needs also to be carried out to find out why only a few of the many companies listed at the East Africa Securities Exchanges have cross-listed their shares whereas majority of them have not, this will help policy makers to address their concerns when formulating policies. Further, more research needs to be carried out on why most of the companies that have cross listed within the EASE have their primary listing in the Nairobi Securities Exchanges.

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APPENDICES

Appendix 1: List of Firms Listed at NSE



**nairobi
securities
exchange**
Discover Opportunity

AGRICULTURAL

Eaagads Ltd
Kakuzi Ltd
Kapchorua Tea Co. Ltd
The Limuru Tea Co. Ltd
Rea Vipingo Plantations Ltd
Sasini Ltd
Williamson Tea Kenya Ltd

AUTOMOBILES & ACCESSORIES

Car & General (K) Ltd
Marshalls (E.A.) Ltd
Sameer Africa Ltd

BANKING

Barclays Bank of Kenya Ltd
CFC Stanbic of Kenya Holdings Ltd
Diamond Trust Bank Kenya Ltd
Equity Bank Ltd
Housing Finance Co. Kenya Ltd
I&M Holdings Ltd
Kenya Commercial Bank Ltd
National Bank of Kenya Ltd
NIC Bank Ltd
Standard Chartered Bank Kenya Ltd
The Co-operative Bank of Kenya Ltd

COMMERCIAL AND SERVICES

Express Kenya Ltd
Hutchings Biemer Ltd
Kenya Airways Ltd
Longhorn Kenya Ltd
Nation Media Group Ltd
Scangroup Ltd
Standard Group Ltd
TPS Eastern Africa Ltd
Uchumi Supermarket Ltd

CONSTRUCTION & ALLIED

ARM Cement Ltd
Bamburi Cement Ltd
Crown Paints Kenya Ltd
E.A.Cables Ltd

E.A.Portland Cement Co. Ltd

ENERGY & PETROLEUM

KenGen Co. Ltd

KenolKobil Ltd

Kenya Power & Lighting Co Ltd

Total Kenya Ltd

Umeme Ltd

INSURANCE

British-American Investments Co.(Kenya) Ltd

CIC Insurance Group Ltd

Jubilee Holdings Ltd

Kenya Re Insurance Corporation Ltd

Liberty Kenya Holdings Ltd

Pan Africa Insurance Holdings Ltd

INVESTMENT

Centum Investment Co Ltd

Olympia Capital Holdings Ltd

Trans-Century Ltd

INVESTMENT SERVICES

Nairobi Securities Exchange Ltd Ord 4.00

MANUFACTURING & ALLIED

A.Baumann & Co Ltd

B.O.C Kenya Ltd

British American Tobacco Kenya Ltd

Carbacid Investments Ltd

East African Breweries Ltd

Eveready East Africa Ltd

Kenya Orchards Ltd

Mumias Sugar Co. Ltd

Unga Group Ltd

TELECOMMUNICATION & TECHNOLOGY

Safaricom Ltd

GROWTH & ENTERPRISE MARKET SEGMENT

AtlasDev & Support Limited

Flame Tree Group

Home Afrika Limited

Kurwitu Ventures Ltd

NSE (2014)

Appendix 2: List of Cross Listed Companies

Company	Cross-Listing Date	Exchange Market
CENTUM	11th February 2011	USE
EABL	27th March 2001	USE
	29 th June 2005	DSE
EQUITY BANK	18 th June 2009	USE
	12 th February 2015	RSE
JUBILEE	14 th February 2006	USE
	26 th December 2006	DSE
KCB	29 th November 2008	USE
	17 th December 2008	DSE
	18 th June 2009	RSE
KENYA AIRWAYS	28 th March 2002	USE
	1 st October 2004	DSE
NMG	19 th October 2010	USE
	2 nd November 2010	RSE
	21 st February 2011	DSE
UCHUMI	13 th October 2013	RSE
	13 th November 2013	USE
	15 th August 2014	DSE
UMEME	14 th December 2012	NSE

(DSE, NSE, RSE, USE)

Appendix 3: Data Collection Form

Instructions (*Data will be collected for 36 months pre and post cross-border listing*)

Variables	Indicators	Before listing	After listing
Profitability Ratio	Net income		
	Dividends on preferred stock		
	Average outstanding shares		
Liquidity Ratio	Current assets		
	Current liability		
Gearing ratio	Total debt		
	Total shareholder's equity		
Investor/Valuation Ratio	Dividend per share		
	Market price per share		

Appendix 4: Summary of Data Analysis

Raw Data

NMG

	2007	2008	2009	mean		2010	2011	2013	mean
profitability ratio	0.0914	0.1012	0.1545	0.1157		0.1923	0.2103	0.2409	0.2145
liquidity ratio	0.9935	1.3125	1.4321	1.24603		2.3461	2.4124	2.6139	2.4575
gearing ratio	0.6121	0.6242	0.6942	0.6435		0.3879	0.4189	0.4395	0.4154
valuation ratio	0.8635	0.9624	1.1024	0.9761		1.1289	1.1987	1.3141	1.2139

EABL

	1998	1999	2000	Mean		2001	2002	2003	Mean
Profitability ratio	0.0912	0.1971	0.2092	0.1658		0.2435	0.2631	0.2845	0.2637
Liquidity ratio	0.9721	0.9865	0.9877	0.9821		2.2143	2.4581	2.6912	2.4545
Gearing ratio	0.4712	0.4987	0.5441	0.5047		0.3412	0.3819	0.4014	0.3748
Valuation ratio	5.9214	6.7841	7.1451	6.6169		12.7312	13.3104	13.4151	13.1522

Jubilee Holdings Ltd

	2003	2004	2005	Mean		2006	2007	2008	Mean
Profitability ratio	0.0397	0.0419	0.0512	0.04427		0.0541	0.0811	0.0475	0.0609
Liquidity ratio	0.9781	1.2107	1.3411	1.17663		1.8987	2.1291	2.0614	2.0297
Gearing ratio	0.8541	0.9457	0.9714	0.92373		0.7457	0.9412	0.8412	0.8414
Valuation ratio	8.7214	8.9791	8.9971	8.8992		8.1321	9.1241	10.1451	9.1938

KQ

	1999	2000	2001	Mean		2002	2003	2004	Mean
Profitability ratio	0.1954	0.1584	0.1987	0.1842		0.1217	0.0989	0.0671	0.0959
Liquidity ratio	1.459	1.6981	1.6213	1.5928		0.7687	0.9271	0.8215	0.8391
Gearing ratio	0.9612	1.2351	1.0241	1.0735		2.8741	2.5145	2.5512	2.6466
Valuation ratio	1.1871	1.0248	1.4254	1.2124		2.8789	3.4794	3.9784	3.44557

KCB

	2005	2006	2007	mean		2008	2009	2010	mean
Profitability ratio	0.0987	0.1237	0.1423	0.1216		0.3542	0.3102	0.3784	0.3476
Liquidity ratio	0.7187	0.7841	0.8247	0.7758		1.1254	1.2315	1.1245	1.16047
Gearing ratio	0.3811	0.4179	0.4572	0.4187		0.1945	0.2145	0.2241	0.21103
Valuation ratio	2.9412	3.1103	3.3457	3.1324		5.021	5.1247	5.124	5.0899

Statistical Ratios

NMG

		Mean	N	Maximum	Minimum	Std deviation	Std. Error	Sig.
Profitability	Before	.115700	3	.1545	.0914	.0339572	.0196052	.000
	After	.214500	3	.2409	.1923	.0245707	.0141859	.000
Liquidity	Before	1.246033	3	1.4321	.9935	.2267286	.1309018	.000
	After	2.457467	3	2.6139	2.3461	.1394721	.0805242	.000
Gearing	Before	.643500	3	.6942	.6121	.0443223	.0255895	.000
	After	.415433	3	.4395	.3879	.0259741	.0149961	.000
Valuation	Before	.976100	3	1.1024	.8635	.1200378	.0693038	.000
	After	1.213900	3	1.3141	1.1289	.0935310	.0540001	.000

EABL

		Mean	N	Maximum	Minimum	Std deviation	Std. Error	Sig.
Profitability	Before	.165833	3	.2092	.0912	.0649169	.0374798	.000
	After	.263700	3	.2845	.2435	.0205066	.0118395	.000
Liquidity	Before	.982100	3	.9877	.9721	.0086810	.0050120	.000
	After	2.454533	3	2.6912	2.2143	.2384700	.1376807	.000
Gearing	Before	.504667	3	.5441	.4712	.0368144	.0212548	.000
	After	.374833	3	.4014	.3412	.0307158	.0177338	.000
Valuation	Before	6.616867	3	7.1451	5.9214	.6287572	.3630132	.000
	After	13.152233	3	13.4151	12.7312	.3683644	.2126753	.000

Jubilee Holding Ltd

		Mean	N	Maximum	Minimum	Std deviation	Std. Error	Sig.
Profitability	Before	.044267	3	.0512	.0397	.0061044	.0035244	.000
	After	.060900	3	.0811	.0475	.0178022	.0102781	.000
Liquidity	Before	1.176633	3	1.3411	.9781	.1838822	.1061644	.000
	After	2.029733	3	2.1291	1.8987	.1184193	.0683694	.000
Gearing	Before	.923733	3	.9714	.8541	.0616581	.0355983	.000
	After	.842700	3	.9412	.7457	.0977586	.0564410	.000
Valuation	Before	8.899200	3	8.9971	8.7214	.1542421	.0890517	.000
	After	9.133767	3	10.1451	8.1321	1.0065348	.5811231	.000

KQ

		Mean	N	Maximum	Minimum	Std deviation	Std. Error	Sig.
Profitability	Before	.184167	3	.1987	.1584	.0223755	.0129185	.000
	After	.095900	3	.1217	.0671	.0274233	.0158329	.000
Liquidity	Before	1.592800	3	1.6981	1.4590	.1220712	.0704779	.000
	After	.839100	3	.9271	.7687	.0806533	.0465652	.000
Gearing	Before	1.073467	3	1.2351	.9612	.1434681	.0828314	.000
	After	2.646600	3	2.8741	2.5145	.1978735	.1142423	.000
Valuation	Before	1.212433	3	1.4254	1.0248	.2014979	.1163349	.000
	After	3.445567	3	3.9784	2.8789	.5505303	.3178488	.000

KCB

		Mean	N	Maximum	Minimum	Std deviation	Std. Error	Sig.
Profitability	Before	.121567	3	.1423	.0987	.0218781	.0126314	.000
	After	.347600	3	.3784	.3102	.0345757	.0199623	.000
Liquidity	Before	.775833	3	.8247	.7187	.0534813	.0308775	.000
	After	1.160467	3	1.2315	1.1245	.0615183	.0355176	.000
Gearing	Before	.418733	3	.4572	.3811	.0380568	.0219721	.000
	After	.211033	3	.2241	.1945	.0151014	.0087188	.000
Valuation	Before	3.132400	3	3.3457	2.9412	.2031536	.1172908	.000
	After	5.089900	3	5.1247	5.0210	.0596702	.0344506	.000

Combined profitability statistical data summary

Profitability T-test statistics

	Mean	N	Std. Deviation	Std. Error
Before	.126320	5	.0542474	.0242602
After	.196520	5	.1185103	.0529994

Profitability Chi square-statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Before	5	.126320	.0542474	.0443	.1842
After	5	.196520	.1185103	.0609	.3476

Profitability Chi square-Test statistics

	Before	After
Chi-Square	.000 ^a	.000 ^a
df	4	4
95% Confidence Interval	Lower Bound	.549
	Upper Bound	1.000
a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.		

Combined liquidity statistical data summary

Liquidity Ratio T-test Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Before	1.154673	5	.3058228	.1367681
After	1.788247	5	.7491722	.3350400

Liquidity Ratio Chi- statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Before	5	1.154673	.3058228	.7758	1.5928
After	5	1.788247	.7491722	.8391	2.4575

Liquidity Ratio Chi-test statistics

	Before	After
Chi-Square	.000 ^a	.000 ^a
df	4	4
95% Confidence Interval	Lower Bound	.549
	Upper Bound	1.000
a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.		

Combined gearing statistical data summary

Gearing Ratio T-test statistics

	Mean	N	Std. Deviation	Std. Error Mean
Before	.712820	5	.2780226	.1243355
After	.897840	5	1.0049148	.4494116

Gearing Ratio Chi-test statistics

	N	Mean	Std. Deviation	Minimum	Maximum
Before	5	.712820	.2780226	.4187	1.0735
After	5	.897840	1.0049148	.2110	2.6466

Gearing Ratio Chi-test statistics

	Before	After
Chi-Square	.000 ^a	.000 ^a
df	4	4
95% Confidence Interval	Lower Bound	.549
	Upper Bound	1.000
a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.		

Combined valuation statistical data summary

Valuation Ratio T-test statistics

	Mean	N	Std. Deviation	Std. Error Mean
Before	4.167400	5	3.4777014	1.5552753
After	6.471660	5	4.8562266	2.1717705

Valuation Ratio Chi-statistics

Descriptive Statistics					
	N	Mean	Std. Deviation	Minimum	Maximum
Before	5	4.167400	3.4777014	.9761	8.8992
After	5	6.471660	4.8562266	1.2139	13.4151

Valuation Ratio Chi-test statistics

	Before	After
Chi-Square	.000 ^a	.000 ^a
df	4	4
95% Confidence Interval		
Lower Bound	.549	.549
Upper Bound	1.000	1.000
a. 5 cells (100.0%) have expected frequencies less than 5. The minimum expected cell frequency is 1.0.		