EFFECTS OF CROSS-LISTING ON STOCK RETURNS: A SURVEY OF CROSS LISTED COMPANIES IN KENYA

BY

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DECLARATION

This research project is my original work and has not been presented to any other institution or University for any degree whatsoever. No part of this project should be produced without prior permission of the author or The University of Nairobi.

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Signature..... Date....18-11-2011.....

This research is submitted with my approval as the University supervisor.

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DEDICATION

I am grateful to the almighty for enabling me complete this project.

I wish to express my warm felt appreciation to my dear Family; Husband Augustine Koima for the unconditional support and not forgetting my 2 years old son who was born during my MBA studies .

My other appreciation goes to my Mother, Leah Komen who has shown undying love and encouraged me to always read till the highest level, thanks Mom and my dear little Sister Mercy who provided moral support.

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ABSTRACT

The Kenyan market is an interesting research setting because, despite being a developing economy, gains are still expected from cross listing with its relatively 'poor' neighboring economies (Uganda, Tanzania, Rwanda and Burundi) (Dediti, 2008). Currently, Kenya Commercial Bank, Kenya Airways, Jubilee Insurance and East Africa Breweries are also listed at the Tanzania, Uganda and Rwanda stock markets. Equity bank is also listed in Kenya and Uganda. Besides making shares of the companies accessible across the region, the regional listings have been mainly driven by market considerations. Yet, studies on Kenyan firms' cross listing activity are relatively scarce even though Kenya is the giant economy in the East African Region.

The population of the study consisted of the five (5) companies that are cross listed. These five companies are: East African Breweries Ltd (EABL), Kenya Airways (KQ), Kenya Commercial Bank, Jubilee Insurance and Equity Bank. The study tracked its financial performance two years before and three years after cross listing.

The data has been analyzed using descriptive and inferential statistics being .Ratios have been mainly used to determine their performances before and after cross listing. Such Key performance indicators included Liquidity ratios, leverage ratios asset ratios, turnover ratios moan others. Inferential statistics included test of significance of the null hypothesis.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

With the advent of globalization and deregulation of the financial landscape in the past decade, there has been a surge in cross-border listings by firms (Omole, 1997). In 1997, nearly 4700 firms cross listed on overseas exchanges globally, with the number of new foreign listings of around 1000 for that year (Patell, 2006). Popular locations for foreign listing included the UK, the US and Japan. A decade later, the number of cross-listed firms had declined to 2837 firms in 2006, while the number of new foreign listings fell to 299, nearly a third of the 1997 levels.

Cross listing of shares is when a firm lists its equity shares on one or more foreign stock exchange in addition to its domestic exchange (Dediti, 2008). Examples include: American Deposit Receipt (ADR), European Depositary Receipt (EDR), International Depositary Receipt (IDR) and Global Registered Shares (GRS). Generally such a company's *primary listing* is on a stock exchange in its country of incorporation, and its *secondary listing(s)* is on an exchange in another country. Cross-listing is especially common for companies that started out in a small market but grew into a larger market. For example, numerous large Canadian companies are listed on the New York Stock Exchange or NASDAQ as well as the Toronto Stock Exchange (Dediti, 2008). The term can also be used to refer to the listing of a company on more than one stock exchange in the same country: as an example, there are a handful of companies in the United States that are listed on both the New York Stock Exchange and the NASDAQ.

Financial Performance: It is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. There are many different ways to measure financial performance, but all measures should be taken in aggregation. Line items such as revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales. Furthermore, the analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt.

Several key questions arise from this interesting trend. What motivates firms to go to other countries to raise capital? Researchers have debated this question since the early 1990s when international equity listing or 'cross listing' was gaining popularity. Among the argued benefits that cross listings create are reduced cost of capital, broadening of the shareholder base, increased liquidity and the bonding of firms to a stronger legal framework (Karolyi, 2006; Matome, 2008; Miller, 2009). However, international equity raising attracts costs as well. These include those associated with adherence to the overseas exchange's regulatory and accounting framework, additional reporting costs and underwriting fees. If there are net positive benefits of cross-listing which accrue to these firms, the number of international equity listings should be increasing over the years. The declining trend of cross-listing highlighted above raises the question of whether the benefits of internationalization are enduring in the long term or are they transitory in nature. In other words, are there permanent gains to cross-list overseas?

Another perspective on cross-listing is the potential effects that it has on the company's performance. While it is clear that seeking shareholder interest overseas could possibly bring benefits to the cross-listed firm, there could be spillover effects on the other domestic firms in the industry of the cross-listed.

1.1.1 Cross border listings in East Africa

Cross-border listing, where a firm lists its equity shares for trading in a stock exchange located in a different country has gained significance in East Africa over the past years since the signing of the Treaty for the Establishment of the East African Community (the Treaty) (Ndege, 2009). Article 85 (Banking and Capital Market Development) of the Treaty states that the Partner States must undertake to implement within the East African Community (EAC), a capital market development program to be determined by the Council for the purpose of creating a conducive environment for the movement of capital within the EAC.

Furthermore the Partner States (which as of July 2009 consisted of Tanzania, Kenya, Uganda and Rwanda) were specifically tasked with promoting co-operation among the stock-exchanges and the capital markets and securities regulators in the EAC (Ndege, 2009). This included establishing within the EAC a mechanism for cross-listing stocks, a rating system of listed companies and an index of trading performance to facilitate the negotiation and sale of shares within and external to the EAC.

The development of cross listing across national stock markets in Tanzania, Kenya, Uganda and Rwanda is a milestone in the EAC's drive for regional integration. Despite

barriers such as wavering political will, differences in settlement procedures and still relative illiquidity, the EAC's stock markets are braced for continued growth, access and harmonisation. With the emergence of electronic gateways, perhaps a regional stock market is not lingering too far in the future! Currently, Kenya Commercial Bank, Kenya Airways, Jubilee Insurance and East Africa Breweries are also listed at the Tanzania, Uganda and Rwanda stock markets.

1.1.2 Nairobi Stock Exchange

The Nairobi Stock Exchange *(NSE)* is the principal stock exchange of Kenya. It began in 1954 as an overseas stock exchange while Kenya was still a British colony with permission of the London Stock Exchange (www.nse.co.ke). The NSE is a member of the African Stock Exchanges Association. Nairobi Stock Exchange is Africa's fourth largest stock exchange in terms of trading volumes, and fifth in terms of market capitalization as a percentage of GDP (www.nse.co.ke) The Exchange works in cooperation with the Uganda Securities Exchange and the Dar es Salaam Stock Exchange, including the cross listing of various equities. The exchange has pre-market sessions from 09:00am to 09:30am and normal trading sessions from 09:30am to 03:00pm on all days of the week except Saturdays, Sundays and holidays declared by the Exchange in advance (www.nse.co.ke).

The NSE's offices and trading floor are located at the Nation Centre along Kimathi Street. Trading is done through the Electronic Trading System (ETS) which was commissioned in 2006 (www.nse.co.ke). A Wide Area Network (WAN) platform was implemented in 2007 and this eradicated the need for brokers to send their staff (dealers) to the trading

floor to conduct business. Trading is now mainly conducted from the brokers' offices through the WAN. However, brokers under certain circumstances can still conduct trading from the floor of the NSE.

Two indices are popularly used to measure performance. The NSE 20-Share Index has been in use since 1964 and measures the performance of 20 blue-chip companies with strong fundamentals and which have consistently returned positive financial results. Included in the Index are (www.nse.co.ke) Mumias Sugar, Express Kenya, Rea Vipingo, Sasini Tea, CMC Holdings, Kenya Airways, Safaricom, Nation Media Group, Barclays Bank Kenya, Equity Bank, Kenya Commercial Bank, Standard Chartered Bank, Bamburi Cement, British American Tobacco, Kengen, Centum Investment Company, East African Breweries, EA Cables, Kenya Power & Lighting Company Ltd. and Athi River Mining. This index primarily focuses on price changes for these 20 companies.

In 2008, the Nairobi Stock Exchange All Share Index (NASI) was introduced as an alternative index. Its measure is an overall indicator of market performance. The Index incorporates all the traded shares of the day. Its attention is therefore on the overall market capitalization rather than the price movements of select counters. There is however a third Index; the AIG 27 Index that compares price movements of 27 companies identified as relatively stable. The rational behind the index compares to that of the NSE 20-Share Index. But whereas the AIG is primarily defined by the AIG company (a financial service company and part of the AIG Group), the 20-share Index is from the NSE itself. On Monday 11 September 2006 live trading on the automated trading systems of the Nairobi Stock Exchange was implemented.

1.2 Statement of the Problem

The trail was blazed by the Johannesburg Stock exchange (JSE) of South Africa when it cross listed on the Namibia Stock Exchange (NSX) on the first day of trading of the NSX in October 1992 (Omole, 1997). Subsequently, South Africa has cross-listed 28 firms on the NSX. There has also been regional cross-listing between stock markets in Botswana and South Africa since 1997 (Dickinson and Muragu, 2009); Malawi and South Africa in 1999; Nigeria and South Africa first in 2004 and later in 2006; Zambia and South Africa in 2003; and Ghana and South Africa in 2004. Triple listing of stocks has also commenced, with the three East African Exchanges of Kenya, Uganda and Tanzania in 2004; and Ghana, Nigeria, and West African and Economic Union ;WAEMU (Bourse Régionale des Valeurs Mobilières) exchanges in 2006.

The Kenyan market is an interesting research setting because, despite being a developing economy, gains are still expected from cross listing with its relatively 'poor' neighboring economies (Uganda, Tanzania, Rwanda and Burundi) (Dediti, 2008). Currently, Kenya Commercial Bank, Kenya Airways, Jubilee Insurance and East Africa Breweries are also listed at the Tanzania, Uganda and Rwanda stock markets. Equity bank is also listed in Kenya and Uganda. Besides making shares of the companies accessible across the region, the regional listings have been mainly driven by market considerations. Yet, studies on Kenyan firms' cross listing activity are relatively scarce even though Kenya is the giant economy in the East African Region.

Unlike the developed market, studies on stock price reactions to events in Sub-Saharan Africa (SSA) are scanty but diverse. This includes price reactions to earnings announcements, dividend announcements, stock splits, board changes, political succession, and connections (Gandhi etal, 2000, Cooper, 2002, Parkinson, 2007, Ayadi, 2004, Dickinson and Muragu, 1993, Omole, 1997, Olowe, 2008, Matome, 2008, Osei, 2008). Parkinson (2007) carried out a study titled 'The EMH and the CAPM on the Nairobi Stock Exchange'; he recommended that a study be undertaken to find out the benefits of cross listing. Ayadi (2004) used a survey design to carry a study titled 'The Random Walk Hypothesis and The Behavior of Share Prices in Nigeria' where found out that cross listing is beneficial to shares but could not establish how it affects financial performance. Dickison and Muragu (1993) in their study on Market Efficiency in Developing Countries recommended cross listing for firms. Osei (2008) carried out a study of factors affecting the Development of an Emerging Market where he found out that cross listing often boosts the price of shares of the cross listed firm. As a result of the foregoing this study seeks to find out the effect of cross listing on financial performance in order to fill the apparent gap in literature. Majority of the companies underestimate the benefits of cross listing and this study seeks to find out how cross listing affects financial performance so that firms contemplating on cross listing can borrow from the findings of this study and strategize on the way forward. Most results find that statistically significant abnormal returns are earned on the market around the events studied. However, there is no study specifically on effects of cross listing on financial performance of companies on Sub Saharan Africa stock markets. This study, which tries to fill the gap, focuses on

analyzing the effects of cross listing on financial performance of the the Kenyan companies that have cross listed.

1.3 Research Gap

A body of literature has studied the impact of cross-listing of stocks by firms from emerging economies on the local capital market (Hargis, 2000; Levin etal, 2003). Domowitz (2008) examine the impact of international cross-listing where investors acquire costly information and highlight the importance of intermarket information linkages using data from the Mexican stock market. Findings from the home 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. His study does not highlight the effects of cross listing on financial performance of the organization.

Miller (2009) 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. Previous studies have concentrated on stock price reactions to first international cross-listing, especially ADR, and have been silent on the impact of regional cross-listing on financial performance of the firm. This study seeks to fill this gap.

Unlike the developed market, studies on stock price reactions to events in SSA are scanty but diverse. This includes price reactions to earnings announcements, dividend

announcements, stock splits, board changes, political succession, and connections (Gandhi, and others, 2000, Cooper, 2002, Parkinson, 2007, Ayadi, 2004, Dickinson and Muragu, 2009, Omole, 1997, Olowe, 2008, Matome, 2008, Osei, 2008). Most results find that statistically significant abnormal returns are earned on the market around the events studied.

However, there is no study specifically on effects of cross listing on financial performance of companies on Sub Saharan Africa stock markets. This study, which tries to fill the gap, focuses on analyzing the effects of cross listing on financial performance of the companies involved.

1.4 Objective of the study

The main objective of this study will be to find out the effects of cross listing on financial performance of quoted companies in Kenya.

1.5 Importance of the Study

This study will contribute to the growing body of literature on the impact of cross listing on financial performance. This allows a comparison of both short- and long-run benefits of cross listing. The findings of this study will also be relevant to the management of both cross-listed and rival firms. If cross listing gains are found to be transitory in nature, Kenyan firms seeking to raise funds regionally might have to reconsider cross listing motives. Managers of firms intending to cross list would have to weigh up the cost and benefits of cross listing. Domestic rival firms need to consider if the competitive landscape in the industry would change due to the cross listing of their competitor and

whether it is beneficial for their firm to follow suit to cross list overseas. From the investors' perspectives, they could benefit from better understanding of the effect of cross listing. For example, if it is found that cross listing gains are temporary in nature, investors should not overreact upon cross listing of a firm.

CHAPTER TWO: LITERATURE REVIEW

2.1 Concept of Cross Listing

Cross listing of shares is when a firm lists its equity shares on one or more foreign stock exchange in addition to its domestic exchange (Hargis, 2000). Examples include: American Deposit Receipt (ADR), European Depositary Receipt (EDR), International Depositary Receipt (IDR) and Global Registered Shares (GRS).

Generally such a company's *primary listing* is on a stock exchange in its country of incorporation, and its *secondary listing(s)* is on an exchange in another country. Cross-listing is especially common for companies that started out in a small market but grew into a larger market. For example, numerous large Canadian companies are listed on the New York Stock Exchange or NASDAQ (Previously National Association of Securities Dealers, Inc.) as well as the Toronto Stock Exchange. The term can also be used to refer to the listing of a company on more than one stock exchange in the same country: as an example, there are a handful of companies in the United States that are listed on both the New York Stock Exchange and the NASDAQ (Domowitz, 2008). Some organizations, such as Liberty Media, have multiple listings reflecting different underlying assets, called tracking stocks.

According to Gandhi *et al.* (2000), NYSE listings are associated with a strong increase in visibility, estimated by news coverage and analyst following. In the same vein, Jayakumar (2000) show that cross-listing improves the informational environment of firms, which, in turn, increases stock's value: cross-listed firms arouse an increased interest from financial analysts and tend to have lower earnings forecasts errors. Cross-

listing reduces the shadow cost of incomplete information in the host country, and allows an increase in the shareholder base. Foerster and Karolyi (1999) estimate this increase at 28.8% after ADR listing. Moreover, cross-listing is generally associated with an increase in trading volume and liquidity.

Fama (2001) and Olowe (2008) argue that by cross-listing, firms are able to enhance investor protection by "bonding" to the U.S. legal and regulatory regimes, and, as a result, reduce agency costs. Jayaraman and Tandon (1993) and Cooper (2002) provide evidence broadly consistent that cross listing results in improved performance. The argument of risk reduction has been taken up by several researchers. As Ayadi (2004) maintain, if a country's capital market is not fully integrated with international capital markets, firms face a higher cost of capital because risk is mostly borne by investors from this country.

Cross-listings make it easier for foreign investors to hold shares in these firms and, as a consequence, risk is more widely shared. Thus, cross-listed firms should have a lower cost of capital. Accordingly, both risk levels and cost of capital should decrease after cross-listing. This reduction, together with increased growth opportunities, decreasing agency costs and an improvement in firms' ability to take advantage of growth opportunities, can explain why foreign companies listed in the U.S. are worth more than non-interlisted firms (Adelegan, 2007).

Managers seem to be aware of these advantages of cross-listing. Studies based on interviews with managers, CEOs and CFOs found that the most important reason for cross listing is increased access to capital, but they also cite the increase in liquidity, institutional investment, analysts' coverage and lower cost of capital (Beaver, 1998; Foerster and Karolyi, 1998). Further, cross-listing induces additional costs. Stringent disclosure requirements can represent an impediment to cross-border listing for firms based in countries with very different legal and accounting environments (e.g. emerging markets vs. the U.S.), but to a much lesser degree for Canadian firms. Cross-listing of Canadian corporations has been facilitated by the implementation of the Multijurisdictional Disclosure System (MJDS) in 1991, which allows Canadian issuers to meet their U.S. filing requirements using Canadian disclosure documents. The only supplementary costs that a cross-listed company incurs are the reconciliation of financial statements with U.S. GAAP and the listing fees on the foreign market.

From theoretical and managers' standpoints, cross-listing in the U.S. can be considered by Canadian firms as a strategic corporate event that can increase shareholders' wealth, at a minimal cost. This can explain why 400 Canadian companies announced that they listed abroad from 1990 to 2005. The positive consequences of these advantages of cross-listing should be anticipated by investors, and likely produce a pre-listing run-up. However, the effect of these advantages of cross-listing on long-run returns is less clear cut.

2.1.1 Motivations for Cross Listing

The academic literature has identified a number of different arguments to cross-list abroad in addition to a listing on the domestic exchange. Fox and Opong (1999) distinguish between the following motivations:

Market segmentation: The traditional argument for why firms seek a cross-listing is that they expect to benefit from a lower cost of capital that arises because their shares become more accessible to global investors whose access would otherwise be restricted because of international investment barriers Fox and Opong (1999).

Market liquidity: Cross-listings on deeper and more liquid equity markets could lead to an increase in the liquidity of the stock and a decrease in the cost of capital.

Information disclosure: Cross-listing on a foreign market can reduce the cost of capital though an improvement of the firm's information environment Fox and Opong (1999). Firms can use a cross-listing on markets with stringent disclosure requirements to signal their quality to outside investors and to provide improved information to potential customers and suppliers (for example, by adopting US GAAP;Generaly Accepted Accounting Principles). Also, cross-listings tend to be associated with increased media attention, greater analyst coverage, better analysts' forecast accuracy, and higher quality of accounting information.

Investor protection ("bonding"): Recently, there is a growing academic literature on the so-called "bonding" argument Fox and Opong (1999). According to this view, cross-listing in the US acts as a bonding mechanism used by firms that are incorporated in a

jurisdiction with poor investor protection and enforcement systems to commit themselves voluntarily to higher standards of corporate governance. In this way, firms attract investors who would otherwise be reluctant to invest.

Other motivations: Cross-listing may also be driven by product and labor market considerations (for example, to increase visibility with customers by broadening product identification), to facilitate foreign acquisitions, and to improve labor relations in foreign countries by introducing share and option plans for foreign employees.

2.2 Theories on the Benefits of Cross Listing

2.2.1 Market Segmentation

One of the theories developed to explain the abnormal performance of cross-listed firms is the market segmentation theory. Firms internationalise to overcome investment barriers that they face in domestic markets and to diversify risk (Oludoyi, 1999; Parkinson, 2007; Osei, 2008; Adelegan, 2009). The presence of investment barriers in domestic markets hinders access to overseas capital thereby limiting growth of the firms. By listing in an overseas market, firms are able to access foreign capital and increase exposure to global market factors. The ultimate result is diversification through risk sharing thereby reducing the cost of raising capital.

2.2.2 Liquidity and Multi-market Trading

Levin etal (2003) develop an asset pricing model which shows that returns of securities are an increasing concave function of liquidity. Consequently, increasing liquidity results in higher valuation and returns. By listing in multiple and larger markets, firms are able to enjoy more liquidity due to increased trading volume, exposure and reduced trading costs (Hargis, 2000; Domowitz *et al.*, 1998). In fact, managers have cited increased liquidity as one of the motivations to list in foreign markets (Bonnier and Bruner, 2009; Faruqee, 2007). Foerster & Karolyi (1998) find a 30% increase in trading volume for 52 Canadian firms listed in the US markets between 1981 and 1990. Hargis (2000) finds a reduction in trading costs by 1.46% for Canadian firms in the US between 1990 and 1998. Increased liquidity can be an advantage for firms coming from small domestic markets.

2.2.3 Investor Recognition

Cooper (2002) proposes an equilibrium pricing model of incomplete information. A shadow cost exists due to incomplete information leading to higher expected return for securities due to the higher premium attributed to incomplete information. Cross listing in multiple markets can widen the shareholder base and increase the 'visibility' of firms. As investors become aware of these firms, the premium or shadow cost is reduced leading to higher valuations. Foerster and Karolyi (1999) and Levin (2003) document results consistent with this investor recognition theory. A wider shareholder base and increased profile enhances liquidity and price discovery in markets.

2.2.4 Bonding and Corporate Governance

The bonding theory postulates that cross listing can enhance corporate governance and better protect the rights of minority shareholders (Fox and Opong, 2000). Firms list in markets covered by tougher legal frameworks and disclosure rules thereby 'bonding' themselves to more effective legal institutions. This attracts more investors especially those concerned with tunneling and disclosure issues. According to Gandhi *et al.* (2000), investors in the US are well protected relative to other countries globally. Reduced expropriation of minority shareholders by the dominant shareholders frees up resources for growth funding, thereby leading to higher firm valuation.

2.3 Effects of Cross listing on Financial Performance

Prior literature on cross listing focuses on the short-run performance of the listing firms. Foerster & Karolyi (1999) utilise a sample of 183 American Depository Receipts (ADR) and ordinary listings in the US and find a listing week abnormal return of 1%. Cooper (2002) analyses Canadian firms which cross listed in the US markets during the period 1976 to 1998 and finds a 1.9% mean abnormal return during listing week.

In the long run, however, the performance of cross-listed firms tells a different story. Foreign firms listing in the US are found to underperform the local market benchmarks by 8 to 15% in the following three years of cross listing (Foerster & Karolyi, 2000). A similar result is evident in the study of Canadian firms by Cooper (2002). In a similar vein, Miller (2009) fail to find any permanent valuation gains for a global sample of firms 10 years pre- and post-cross listing. Adelagan (2009), utilising a sample of cross-listed

Canadian firms between 1988 and 2005, find mixed evidence for permanent valuation gains in terms of 'visibility'. They argue that increased visibility upon cross listing is not permanent unless the shareholder base increment is maintained over time. All these findings lead to uncertainty as to whether cross listing benefits are enduring.

One explanation posits that intermarket informational linkages, the degree of market segmentation and the complex interface of competition between international markets are important components. Basically, this means that if markets are segmented and not completely transparent, and order flow is lost to the overseas market, then risk increases and market maker confidence is reduced (Domowitz, 2008). This explanation hardly fits the Canadian vs. U.S. situation. Karolyi (1998) raises the managerial incentives argument, which predicts that managers will time cross-listing events to coincide with the peak of domestic stock market performance.

A parallel research stream has attempted to analyze the effects of cross-listing on firm value, and generally evidences a cross-listing premium: cross-listed firms are worth more than similar noncross- listed stocks (Hargis, 2000; Patell, 2006; Osei, 2008). As Patell (2008) assert, U.S. cross-listed firms should be worth more because 1) they can take advantage of growth opportunities that they could not have taken advantage of without a listing and 2) a smaller fraction of the cash flows generated by the firms are appropriated as private benefits by insiders. They contend that the first source of valuation effect does not persist. Accordingly, the cross-listing premium should partially vanish with time. Patel (2006) show that this premium decreases but is still present three years after the

listing. In Canada, Faruqee (2007) demonstrate that cross-listed firms are valued similarly to their U.S. peers, at a premium (of 21% using Tobin's q) to comparable non-cross-listed Canadian firms. However, Hargis (2000) show that this premium disappears within two years of cross-listing. If newly crosslisted firms trade at a premium, and if the premium disappears or shrinks during the following years, the post-listing return should be abnormally low. Miller (2009) analyze the components of the q ratio around the cross-listings and observe that the market capitalization increases one year before the cross-listing and remains high thereafter. The reduction in q ratio can be traced to the increase in total assets after internationalization. Therefore, the decrease in q ratio does not imply an abnormal negative stock return.

Similarly to the case of initial public offerings, we observe long-run underperformance of firms following a perceived value-increasing corporate event. Consistent with numerous authors in the corporate finance field (Cooper, 2002), we contend that the measurement problem of long-run performance can explain previous results. They can be also traced to sample selection and survival biases: previous studies generally rely on sub-samples of newly crosslisted firms, due to several constraints in data availability and the high rate of cross-delisting. Second, the puzzle can also be linked to the specific time period covered in previous studies. As evidenced by Foerster and Karolyi (1999), the long-run underperformance seems to have sector specific components. While clusters of date and sector exist in the cross-listing activity, some observations can be traced to the composition of the samples during a given time period. Third, most previous studies estimate long-run performance of cross-listed firms through event-time approaches.

These methods indeed suffer from various problems associated with both the measurement of abnormal returns and the specification of tests for non-zero abnormal returns. Of all this studies; none has been conducted in a developing world and especially sub-saharan Africa. This study seeks to fulfill this apparent gap in literature.

2.4 Regional Cross-Listing in Sub-Saharan Africa

The trail was blazed by the JSE Securities Exchange of South Africa when it crosslisted on the Namibia Stock Exchange (NSX) on the first day of trading of the NSX in October 1992 (Omole, 1997). Subsequently, South Africa has cross-listed 28 firms on the NSX (See Table 2). There has also been regional cross-listing between stock markets in Botswana and South Africa since 1997 (Dickinson and Muragu, 2009); Malawi and South Africa in 1999; Nigeria and South Africa first in 2004 and later in 2006; Zambia and South Africa in 2003; and Ghana and South Africa in 2004. Triple listing of stocks has also commenced, with the three East African Exchanges of Kenya, Uganda and Tanzania in 2004; and Ghana, Nigeria, and WAEMU (Bourse Régionale des Valeurs Mobilières) exchanges in 2006.

There have been further agreements to cross-list among stock markets in the SSA region. South Africa has signed an MoU with Botswana, Egypt, Ghana, Kenya, Namibia, Nigeria, and Uganda. Nigeria has signed an MoU with Ghana and WAEMU, while the Nairobi Stock Exchange of Kenya has signed MoUs with Ghana, Nigeria, Tanzania, Uganda, and WAEMU.

In SSA countries, regional cross-listing is beneficial to the firms and to the countries of both primary listing (home country) and secondary listing (host country). Policy makers of the countries of primary and secondary listings need the right policy handles to encourage facilitate and steer regional cross-listing efforts by firms. Through complementary policy based efforts, policy makers can set the stage for the regional cross listing of stocks and harness the numerous benefits that are associated with it.

Apart from providing the avenue for cross-border trading in stocks, the home firm and country of primary listing enjoy a number of benefits, including (Olowe, 2008): greater access to lower cost equity finance from a wider investor base; enhanced business reputations through openness and more stringent financial disclosure; a reduction in transaction costs for investors through gains in market liquidity as a result of cross-listings; mitigation of market segmentation through a reduction in barriers to foreign investors that arise from regulation and lack of information; and addressing of information asymmetries and enhanced corporate governance.

Cross-listing is also beneficial for the firm and country of secondary listing. In addition to increasing stock market liquidity, cross-listing also (Ndege, 2009): provides an avenue for portfolio diversification for a wider investor base; improves the employment level through gains from the expansion of operations in the country of secondary listing; enhances both the business reputation of the cross-listed firm and other national listed firms; reduces spreads on interest rates and debt securities by increasing the number of investors in the stock market, thereby reducing the concentration of investors in the

money market; increases the availability and accuracy of public information and lowers information asymmetries; and enhances corporate governance, and market transparency and quality.

Regional cross-listings in sub-Saharan Africa have been associated with expansion and the setting-up of operations in the host countries. In almost all cases, firms are large with a strong base in their home countries, and they first established operations in their host countries before deciding to cross-list (Olowe, 2008). Many cross-listings are undertaken to expand operations in the host countries. Almost all the firms that are cross-listed (about 98 percent or 42 out of 43) have set up operations in the host countries.7 For example, East African Breweries, with Kenya as the home country, has a subsidiary Uganda Breweries Ltd in Uganda, its host country of cross-listing. Jubilee Insurance of Kenya has subsidiaries in Uganda and Tanzania; Kenya Airways owns 49 percent of Precision Air of Tanzania; Ecobank Transnational has operations in the Cote D'Ivoire (WAEMU) the home country and in Ghana and Nigeria, the host countries; Investec and Ellerine have operations in South Africa and Botswana; and the 28 firms that are cross-listed in South Africa and Namibia have an operational base in both countries. Cross-listing in SSA has been generally accompanied by an initial public offering and/or secondary market listing.

2.4.1 Regional cross-listings in SSA have either been policy driven or market driven

Examples of government policy induced regional cross-listings are the cross-listings between the JSE, South Africa and NSX, Namibia; and the East African Stock

Exchanges (NSE and USE and TSE). Cross-listing of many South African companies listed on the Namibia Stock Exchange has been motivated by the imposition of capital controls on portfolio flows and by the domestic investment requirements set by the Namibian authorities in an attempt to keep the large surpluses of the country's pension and insurance funds invested in Namibia. By cross-listing, South African firms were able to qualify as Namibian investments. Similarly, the cross-listing of East African Breweries on the Ugandan and Tanzanian exchanges was linked to ensuring market access for beer trade throughout the EAC.

Examples of **market driven cross-listings** are: the West African triple cross-listing of Ecobank on the BRVM, the Nigerian Stock Exchange, and the Ghana Stock Exchange; the cross-listing of Oando on the Nigerian Stock Exchange and the JSE; and the cross-listing of Shoprite on the JSE and LUSE, Zambia. Irrespective of the reason for the regional cross-listing, it is beneficial to both the host and home countries.

2.5 Financial Performance of Companies

Financial Performance: It is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (Cooper, 2002). There are many different ways to measure financial performance, but all measures should be taken in aggregation. Line items such as revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales. Furthermore, the analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt.

There are several detail ratios that we can monitor, such as acid test, inventory turnover, and debt to equity. Detail ratios help us monitor specific financial conditions, such as liquidity or profitability. Ratios are best used when compared or benchmarked against another reference, such as an industry standard or "best in class" within our industry. This type of comparison helps us establish financial goals and identify problem areas.

It should be noted that ratios do have limitations (Cooper, 2002). After all, ratios are usually derived from financial statements and financial statements have serious limitations. Additionally, comparisons are usually difficult because of operating and financial differences between companies. None-the-less, if you want to analyze a set of financial statements, ratio analysis is probably one of the most popular approaches to understanding financial performance.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlines the methodology and procedures and modalities that were used in data collection. It also covers research design, determination and identification of the population sample size, sampling design, sampling procedure, the instruments of data collection, validity and reliability of data collected, sources of data, methods of data collection and methods of analyzing the data.

3.2 Research Design

The study adopted a descriptive research method. This was preferred because it is efficient in collecting large amounts of information for one concept. Kerlinger (1978) argues for the use of a descriptive survey in social economic fact finding because it provides a great deal of information which is accurate. Furthermore Patton (2002) state that the intention of a descriptive survey research is to gather data at a particular point in time and use it to describe the nature of existing conditions. Since the aim of this study was to find out the impact of cross listing on financial performance of companies in Kenya, a descriptive survey research design was most suitable for the study.

3.3 Target and Sample Population

The population of the study consisted of the five (5) companies that have cross listed. These five companies are: East African Breweries Ltd (EABL), Kenya Airways (KQ),

Kenya Commercial Bank, Jubilee Insurance and Equity Bank. The study tracked their financial performance two years before and two years after cross listing.

Neuman (2000) argues that, "The main factor considered in determining the sample size is the need to keep it manageable enough. Also this will enable the researcher to derive from it detailed data at an affordable costs in terms of time, finances and human resource (Mugenda and Mugenda (1999). The study adopted stratified sampling technique to select suitable sample sizes. From NSE, the researcher sampled 5 companies which are cross-listed. The researcher then selected 30% of the target population to act as the sample size since Patton (2002) argues that 30% of the target population is enough in a descriptive survey research.

3.4 Study Variables

The study variables that served as parameters of financial performance from secondary data include:

Return on Equity: is a measure of how well management has used the capital invested by shareholders. It is calculated by dividing Net Income by Average Shareholders Equity (including Retained Earnings).

Liquidity Ratios: Liquidity Ratios help us understand if we can meet our obligations over the short-run. Higher liquidity levels indicate that we can easily meet our current obligations.

Operating income to Sales: Operating Income to Sales compares Earnings Before Interest and Taxes (EBIT) to Sales. By using EBIT, we place more emphasis on operating results and we more closely follow cash flow concepts. Operating Income to Sales is calculated as follows:

EBIT / Net Sales:

Earnings Per Share: The EPS expresses the earnings of a company on a "per share" basis. A high EPS in comparison to other competing firms is desirable. The EPS is calculated as:

Earnings Available to Common Shareholders / Number of Common Shares Outstanding

Dividend Yield: Calculated as: *Dividends per Share / Price of Stock*

The above ratios were used to determine financial performance of the five companies before and after cross-listing. All the data used were from secondary since the study is quantitative in nature.

3.5 Data Collection

The study used secondary data by going through financial statements of the five companies that are cross listed two years before and two years after cross listing.

3.5.2 Validity of the Research Instrument

Validity refers to the extent which a test measures what we actually wish to measure: it is based on the adequacy with which the items in an instrument measure the attributes of the study (Neuman, 2000). Neuman (2002)'s solution for assuring construct validity is:

i. Use multiple source of information

ii. Establish chain of evidence

iii. Have key informants review the report

Multiple sources of information were used in the form of two kinds of sources; literature review on previous empirical research and secondary data from financial statements.

Establish a chain of evidence was performed in three steps; literature review, which provides an emerging framework; Pilot study, which filled the gap between emerging conceptual framework and later field study. Also these findings were validated in statistical studies.

Have key informants review the report. In order to perform this technique several respondents were asked to comment on some of the conclusions.

3.5.3 Reliability of the Research Instrument

Reliability is the extent to which any measuring procedure yields the same results on repeated trials (Neuman, 2000). In many areas of research, the precise measurement of hypothesized processes or variables (theoretical constructs) poses a challenge by itself. In general, in all social sciences, an unreliable measurement of people's beliefs or intentions obviously hampers efforts to predict their behaviour. Reliability and item analysis can be used to construct reliable measurement scales, to improve existing scales, and to evaluate the reliability of scales already in use. Specifically, Reliability and item analysis aided in the design and evaluation of sum scales, that is, scales that are made up of multiple individual measurements (e.g., different items, repeated measurements, different measurement devices, etc.). The program then computed numerous statistics allowed the user to build and evaluate scales following the so-called classical testing theory model.

The assessment of scale reliability was based on the correlations between the individual items or measurements that make up the scale, relative to the variances of the items. In this context the definition of reliability is straightforward: a measurement is reliable if it reflects mostly true score, relative to the error.

We can estimate the proportion of true score variance that is captured by the items by comparing the sum of item variances with the variance of the sum scale. Specifically, we can compute: a = (k/(k-1)) * [1- S(s2i)/s2sum].

This is the formula for the most common index of reliability, namely, Cronbach's coefficient Alpha (a). In this formula, the s2i's denote the variances for the k individual items; s2sum denotes the variance for the sum of all items. If there is no true score but only error in the items (which is esoteric and unique, and, therefore, uncorrelated across subjects), then the variance of the sum is the same as the sum of variances of the individual items. Therefore, coefficient Alpha equals to zero. If all items are perfectly reliable and measure the same thing (true score), then coefficient Alpha is equal to 1. Cronbach's alpha is the most common form of internal consistency reliability coefficient. By convention, a lenient cut-off of .60 is common in exploratory research; alpha should be at least .70 or higher to retain an item in an "adequate" scale; and many researchers require a cut-off of .80 for a "good scale." Regarding the above explanation, in this research, Cronbach's alpha was used in order to test the reliability of items at the pilot study, after calculating this; the researcher made some changes in order to make the questionnaire reliable and bring the Cronbach's alpha to minimum .70.

3.6 Data Analysis

Financial ratios and key performance indicators were computed for presenting and analyzing the data. Comparative statistics were also perfumed to compare firms in same category but have not cross listed.

The data was then presented in tables.

Student T test was further used to test whether there is a significance difference between cross listing and financial performance.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

4.1 Characteristics of Cross-Listed Firms

4.1.1 East African Breweries

A subsidiary of Diageo, East African Breweries is the leading branded brewery firm in East Africa. It was established in 1922, with its plant located at Ruaraka, Nairobi-Kenya. The company was formerly known as Kenya Breweries Ltd. and changed its name to East African Breweries Limited in 1936. It has an outstanding collection of beers and spirits. East African Breweries Limited, through its subsidiaries, engages in the marketing, brewing, manufacturing, and selling drinks, glass containers, malt, and barley in Kenya, Uganda, and Tanzania. EABL has a total brewing capacity of 2.5 million hector-litres per year. It has an annual turnover of Ksh. 30 Billion and has the largest market share in the region. EABL employs over 1000 employees. Currently the giant brewer has a market capitalization of 120.9 Billion. Before cross listing the firm had 93,602,252 shares and after cross listing and currently the company has 790,774,356 shares outstanding. A point to note is that this increase in shares was not only attributed to cross listing only but also due to stock splits that have been conducted by the firm. In a survey conducted by PricewaterhouseCoopers and Nation Media Group, EABL scooped the accolade of the East Africa's most respected company for five years running i.e. from years 2000 to 2004. The values that have made the firm what it is include; being proud in what they do, being the best, being passionate about their consumers, valuing each other and giving one another freedom to succeed. The company produces beer under Tusker, Pilsner, White Cap, Senator, Guinness, AllSopps, Smirnoff Ice, Bell Lager brand names. It also produces Malta Guinness, a non-alcoholic energy drink, Alvaro soft drink and Waragi branded spirits. Tusker is the flagship brand and a Kenyan icon.

ya Airways

vays, 'The Pride of Africa' is the lead carrier airline in Eastern Africa which shed in 1977 after the collapse of East African Community (EAC). The vision ne is to consistently be a Safe & Profitable Airline that Guarantees World ce. Its mission is to maximize shareholder value by consistently providing the el of customer satisfaction, Upholding the Highest level of Safety and nd maximizing employee satisfaction while being committed to the Corporate Responsibility.

was privatized in March 1996 to what was the largest IPO at that time. In ya Airways Msafiri frequent flier programme merged with KLM's Flying frequent flier programme. As a result of being privatized, the firm was able to modern Boeing aircrafts. The year 2005 was very good for the company as it as Africa's most respected company. Its profitability rose to 3.9 Billion, citing crease. It is also in this year that the national carrier really expanded its air year 2007 was marked by the event of KQ joining the famous Sky Team as e airline. Several factors motivated KQ to cross-list. These include the nature ; KQ operates all over the region. The Kenyan market cannot sustain the of the airline; exhaustion of domestic market made the regional carrier to see it ude all its customers in the East African region to feel part of the company.

t market capitalization of the company is at 25.2 Billion with 461,615,484 es outstanding. The profitability of the company heavily relies on factors such prices, foreign exchange rates, and global financial stability. Since it uses the e currency for its transactions, a weak dollar adversely affects its profitability. the nature of operating in different countries, KQ found it wise to enter into liances with various carriers to enable it to operate smoothly. KLM is a ly, global route network and airline partner since 1996, holding 26% of the joint venture runs regular services between Nairobi and Amsterdam, and l services within the Kenya Airways-KLM network and potential services the North American and European markets from Nairobi. It has also a code- ices agreement with Air France where they operate in similar routes in Europe

from Nairobi. In the airline industry, performance is so integrated that an airline firm has to enter into alliances and partnerships to ensure its continued survival.

KQ normally holds physical AGM's in Nairobi Kenya where the company is based. They held the last AGM at Kasarani Sports Gymnasium. During the AGMs, the chairman and top management reads their speeches, the auditors express their opinion on the financial statements, shareholders are given a chance to raise issues and voting takes place. The financial statements are based on the International Financial Reporting Standards.

Being a lead regional carrier, the firm operates in places where there are economic and social disparities; however, it has ensured that the cultures of the communities in the East African Region are marketed. Kenya Airways acts as an ambassador of East African heritage to other nations. For instance, it markets the clothing and belts of the Maasai Community who are residents in Kenya and Tanzania. The company also supports sporting events such as rugby. This makes shareholders feel proud to be associated with the regional carrier. Economic wise, the company has been facing challenges especially the fluctuations of the crude oil prices that have not been stable in the last one and half years

There are challenges that the firm faces in its operations notably the Interest rate parities and regulatory requirements. According to an internal source Interest Rate Parity is the greatest challenge that is faced by the carrier. The company flies to destinations all over the world and costs have been affecting its levels of income. Since the company uses the dollar as the standard currency, the weakening of the dollar relative to other currencies means little revenue to the firm; strengthening of the dollar relative to East African currencies means high costs of inputs such as crude oil or purchase of the aircrafts. The other major challenge is disparities in the stock exchanges of the region; the Kenyan stock market is highly advanced in comparison to other East African Stock Markets. This challenge is however going to be resolved with the plans of regional integration of East African Economies in the pipeline.

4.1.3 Jubilee Holdings Ltd.

Having been incorporated in 1937 as a composite insurer and a provider of mortgage finance, Jubilee Holdings is over 71 years. It is a market leader in medical insurance. It

has marketing offices in Nairobi, Kampala and Dar-es Salaam, with eight branches spread in the East African region. In 1984, Jubilee was listed on the Nairobi Stock Exchange. On 14 February 2006, Jubilee Holdings Ltd. Holdings issued shares on the USE, and later, 27 June 2006 on the DSE; thus, the company was the only firm in Kenya to cross-list in two stock exchanges at the same year. Having been in operation in Uganda and Tanzania, Jubilee Holdings ltd. did not find it hard attracting the investors in these countries. The decision to list on the Ugandan and Tanzanian bourse was arose due to the fact that the company's businesses are spread all over the region and thus to reward its clients it gave them a chance to participate in the ownership. The company has been holding its Annual General Meeting in Nairobi.

Currently, Jubilee Insurance, a wholly owned subsidiary of Jubilee Holdings Limited, has an issued share capital of Ksh 225 million and the highest shareholders' funds in the Kenyan insurance industry. Up until cross listing, the firm had 32.2 Million shares outstanding and currently the number has risen to 47 Million shares with its Market Capitalization standing at Ksh. 6.12 Billion and a share price of Ksh.136. Following a period of economic stability, the operations of Jubilee Holdings Ltd were revived in Uganda in 1992 Its main shareholders include the Aga Khan Fund for Economic Development and the Development Finance Company of Uganda Limited. Today, Jubilee Uganda is considered one of the leading insurance companies in the country. Again, in cooperation with local shareholders, the Jubilee Holdings Ltd. Company of Tanzania Limited was formed and in June 1998 earned the distinction of being the first private sector insurance company to be licensed following liberalization of the insurance market in Tanzania.

Jubilee Holdings Ltd. Holdings is divided into investments and Financial Services divisions. The insurance company has made several investments, as is the nature of insurance companies, notably in Bank of Baroda and TPS East Africa. A board of directors (BOD) runs the firm. The board comprises of eight non-executive members of whom five are independent. The independence concept here ensures that the shareholders interests are kept protected. This information was obtained from the company's website.

The firm faces some few challenges when operating in different countries. There are restrictions as to the number of shares that can be owned by foreigners. This is especially

in Tanzania; however, the firm has tackled this by abiding to the rules that have been set. The firm appreciates the move to creation of East African Corporation (EAC), which has brought largely the harmonization of East African stock Markets. In respect to reporting the financial statements, the firm has been using the International Reporting Standards of consolidated statements. The economies of the East African Countries are relatively interlinked due to similar nature of businesses in the region; this means that there is little parity in interest rates. However, in the year 2008, the cost of living in Kenya was very high due to the post-election chaos that disrupted Kenyan businesses. This made the Kenyan shilling depreciate against other currencies hence causing a challenge to the company, which operated in the region.

There are 45 Million shares outstanding as at 31 December 2008 and 6317 shareholders. This is outlined in table 2 below; those who own less than 500 shares constitute about 0.6%, while those who own more than 1 million shares constitute about 44% of ownership. It was noted that those who own less than 10000shares constitute less than 25%, while those who own more than 10000 shares constitute more than 75%.

Table 1: Distribution of Shareholders of Jubilee Holdings Ltd. Holdings as At 31 December 2008:

Number of shares	Number of shareholders	Number of shares held	% shareholding
Less than 500	1,425	287,815	0.640
501 – 5,000	3,960	7,014,960	15.589
5,001 – 10,000	527	3,723,432	8.274
10,001 – 100,000	388	9,457,091	21.016
100,001 – 1,000,000	15	4,692,339	10.427
Over 1,000,000	2	19,824,363	44.054
Total	**6,317**	**45,000,000**	**100.00**

Source: www.jubilee.co.ke 2009

4.2 Ex Ante and Post Ante Stock Returns of Listed Companies

4.2.1.1 Stock Returns of EABL Two Years Before and After It Cross-Listed

According to table 2a, it is evident that the liquidity ratios of EABL increased after it first cross-listed in year 2001. The current ratio changed from 0.9806 to 2.4499 times while the quick ratio changed from 0.31308 to 1.43291times. The ratios after cross listing met the stipulated threshold of at least 2 and 1 times for current and quick ratios respectively. The profitability ratios also increased as indicated by the table below. ROCE changed from about 17% to about 26%, the ROI changed from about 14% to about 16%, while the GP margin changed from about 30% to about 35%. The implications of the increase in profitability ratios are that funds availed might be used in a more economic manner thus generating a higher return.

Notably, gearing ratios declined; these ratios measure the relative return on shareholders. In addition, Debt-Equity Ratio changed from 0.5036 to 0.3738, while Equity Ratio changed from 1.14134 to 1.1002. The results shown on table 2a, shows that EY decreased from about 15% to about 8% , DY also decreased from about 10% to about 8% while the P/E ratio increase from 6.61445 to 13.1541 times. The financial implications for the decline in EY and DY might mean a dilution effect. This may means that the increase in the returns that the firm generated was not at the same rate as the number of shares outstanding. The decline in DY might imply two things: first, it might be that the shares outstanding were more that the earnings attributable to ordinary shareholders and second, it might be that the firms retained more of its earnings thus having a low dividend payout.

Table 2a: EABL's Stock Returns Two Years Before and After It Cross-Listed

Details	Two years before Cross listing	Two years after Cross listing
Liquidity Ratios		
Current Ratio	0.9806	2.4499
Quick Ratio	0.31308	1.43291
Profitability Ratios		
Return on Capital Employed	0.166	0.26282
Return on Investments	0.14178	0.156
GP Margin	0.30162	0.34653
Gearing Ratios		
Debt-Equity Ratio	0.5036	0.3738
Equity Ratio	1.14134	1.1002
Equity Related Ratios		
EY	0.15118	0.07602
DY	0.10395	0.082873
P/E	6.61445	13.1541

Source: Data analysis, 2011

4.2.1.2 Two Tailed T Test Results on EABL's Stock Returns Two Years Before and After It Cross-Listed

Regarding liquidity, the computed t value was -2.12836 being less than t critical of 4.302653 indicating that the difference in liquidity ratios is not statistically significant. This is confirmed by the p value of 0.167103 being greater than the 0.05. The mean difference was 1.2941; this could be due to chance or error. This implies that despite the increase in liquidity of the firm, it is not statistically significant. For profitability, the computed t value was -0.7001 being less than t critical of 2.7764 indicating that the difference in profitability ratios are not statistically significant. This is confirmed by the p value of 0.5225 being greater than the 0.05. The mean difference was 0.2291; this could be due to chance or error. The results concerning gearing ratios showed that the computed t value was 0.1768 being less than t critical of 4.3027 indicating that the

fference in gearing ratios is not statistically significant. This was confirmed by the p lue of 0.8759 being greater than the 0.05. The mean difference was 0.7797; this could due to chance or error. In equity related ratios, the computed t value was -0.4415 being ss than t critical of 0.688757 indicating that the difference in gearing ratios is not itistically significant. This is confirmed by the p value of 0.688757 being greater than e stipulated 0.05. The mean difference was 3.3638; this could be due to chance or error.

ble 2b: EABL's Stock Returns Two Years Before and After It Cross-Listed

o tailed T-test

				95% confidence level			
asure	t-stat	df	t-critical	mean 1	mean 2	mean difference	p-value
uidity ratio	-2.1284	2	4.3027	0.6468	1.9414	1.2941	0.1671
fitability ratio	-0.7001	4	2.7764	0.2031	0.2551	0.2291	0.5225
aring ratio	0.1768	2	4.3027	0.8225	0.7370	0.7797	0.8759
ity-related	-0.4415	3	3.1824	2.2899	4.4377	3.3638	0.6888

rce: Data analysis, 2011

2.2.1 Stock Returns for Kenya Airways Two Years Before and after it oss-Listed

indicated in table 3a, the liquidity of Kenya Airways declined after it first cross-listed year 2002. This is in respect to current ratio and quick ratio; they both went below the ulated standard of 2 and 1 times respectively. Current ratio declined from about 1.6 es to about 0.8 times whereas the quick ratio declined from about 1.5 times to about times. This might be attributed to the fact that KQ made very heavy investments in dern large carrier planes to increase its regional market share. On Profitability ratios, CE changed from about 19% to about 10%, while ROI changed from about 40% to ut 16%, and GP margin slightly changed from about 29% to 30%. The implication of

increasing in the GP margin, but a drop in the ROCE and ROI may be due to increase of capital employed thus increasing the denominator of the equation.

The gearing ratios of the firm increased after it cross-listed. The debt-equity ratio changed from 1.1017 to 2.64008 while the debt ratio changed from 2.1017 to 2.6745. In respect to Equity related ratios, the EY changed from about 80% to about 29%, while the DY changed from about 10% to about 8%, and the P/E ratio changed from 1.248 times to 3.4574 times. The decline in EY may imply that the firm's profitability was not commensurate with the increase in shares outstanding. DY could have decreased as a direct result of the decline in EY or the firm may have decided to retain more of its profits to facilitate its investment projects. The increase in the P/E ratio might have been due to investments in assets (aircrafts) that took time to recoup their initial capital outlay.

Table 3a; Stock Returns for Kenya Airways Two Years Before and After It Cross-Listed

Details	Two years before Cross listing	Two years after Cross listing
Liquidity Ratios		
Current Ratio	1.5975	0.83184
Quick Ratio	1.488805	0.72191
Profitability Ratios		
Return on Capital Employed	0.18687	0.096092
Return on Investments	0.40225	0.16126
GP Margin	0.28906	0.29529
Gearing Ratios		
Debt-Equity Ratio	1.1017	2.64008
Equity Ratio	2.1017	2.6745
Equity Related Ratios		
EY	0.8013	0.2892
DY	0.095	0.0769
P/E	1.248	3.4574

Source: Data analysis, 2011

4.2.2.2 Two Tailed T Test on Stock Returns for Kenya Airways Two Years Before and after it Cross-Listed

In liquidity, the computed t value was 9.913438 being greater than t critical of 4.302653 indicating that the difference in gearing ratios is statistically significant. This is confirmed by the p value of 0.010023 being smaller than the 0.05. This large drop in liquidity may imply that the national carrier airline was facing some liquidity challenges because of its heavy investments. The mean difference was 1.16, which was statistically significant. In respect to profitability, the computed t value was 1.269397 being less than t critical of 2.776445 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.273129 being greater than the 0.05. The mean difference was 0.2385; this could be due to chance or error. Despite the large double drop in the ROCE and ROI ratios, they were not statistically significant.

The t values in gearing ratios was -2.10993 being less than t critical of 12.7062 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.281762 being greater than the 0.05. The mean difference was 2.1295; this could be due to chance or error. These gearing ratios could have increased due to massive investments undertaken by the national carrier resulting to increased borrowing. However, there could also be almost equal increase in the debt levels thus making the results not statistically significant. In Equity related ratios, the computed t value was -0.4895 being less than t critical of 4.3027 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.6729 being greater than the 0.05. The mean difference was 0.9946; this could be due to chance or error. Due to high investments in fixed assets, the rate at which they would recoup the initial capital increased and thus the increase in the P/E ratio.

Table 3b: Stock Returns for Kenya Airways two years before and after it cross-listed

Two tailed T-test							
				95% confidence level			
Measure	t-stat	df	t-critical	mean 1	mean 2	mean difference	p-value
Liquidity ratio	9.9134	2	4.3027	1.5432	0.7769	1.1600	0.0100
Profitability ratio	1.2694	4	2.7764	0.2927	0.1842	0.2385	0.2731
Gearing ratio	-2.1099	1	12.7062	1.6017	2.6573	2.1295	0.2818
Equity-related	-0.4895	2	4.3027	0.7148	1.2745	0.9946	0.6729

Source: Data analysis, 2011

4.2.3.1 Stock Returns of Jubilee Holdings Ltd. holdings two years before and after it cross-listed

The liquidity of Jubilee Holdings Ltd significantly increased after it cross-listed. According to the results in table 4a, current ratio changed from 1.1795 to 2.0293 while quick ratio changed from 1.1796 to 2.0293. A point to note is that Jubilee Holdings Ltd. had no inventory, as it is a service based firm and thus the reason why current and quick ratios were the same. After it cross-listed the current assets increased substantially compared to the current liabilities. They were below the stipulated standard of 2 times before it cross-listed, but reached the standard after issuing stock across the borders. By meeting the stipulated standard, it may imply that Jubilee Holdings Ltd. was in a position to comfortably fulfill its current obligations. In Profitability ratios, ROCE changed from about 4%0 to about 6%, while ROI changed from about 14% to about 22%, and GP margin slightly changed from about 75% to about 77%. This increase may have been attributed to more profitable ventures due to economies of scale. The results of gearing ratios as shown in table were; Debt-Equity Ratio that changed from 0.9271 to 0.8414 and Equity Ratio, which changed from 3.955 to 4.6671. In Equity-related ratios the EY changed very slightly from 10.95% to 10.88%, while the DY changed from about 4.2% to about 0.025, and the P/E ratio changed from 8.982 to 9.1938 times. The decline in DY might be attributed to the firm retaining its profits more and thus lower dividend payout.

in P/E ratio may imply investment projects that have long-term returns; reate confidence in shareholders as to the going concern of the firm.

: Returns of Jubilee Holdings Ltd. Holdings Two Years Before and After It Cross-Listed

	Two years before Cross listing	Two years after Cross listing
os		
	1.1795	2.0293
	1.1796	2.0293
Ratios		
	0.74544	0.7721
ital Employed	0.044678	0.06022
stments	0.1362	0.22257
os		
atio	0.9271	0.8414
	3.955	4.6671
ed Ratios		
	0.1095	0.1088
	0.00417	0.025
	8.982	9.1938

analysis, 2011

) Tailed T Test Results on Stock Returns of Jubilee Holdings Ltd. 'wo Years Before and After It Cross-Listed

, the computed t value was -16995 being greater than t critical of 12.7062 that the difference in liquidity ratios are statistically significant. This is ɔy the p value of 0.0000375 being smaller than the 0.05. The mean difference which was significant. The computed t value in profitability ratios was - ing less than t critical of 2.776445 indicating that the difference in gearing

ratios is not statistically significant. This is confirmed by the p value of 0.896003 being greater than the 0.05. The mean difference was 0.330. This slight change might be due to the firm investing in long term projects that had not generated the returns thus making the ratios remain relatively unchanged.

In respect to gearing ratios, the computed t value was -0.12839 being less than t critical of 4.302653 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.909588 being greater than the 0.05. The mean difference was 2.598; this could be due to chance or error. The slight increase in gearing might denote that the company increasing its debt levels at a relatively higher rate than the way it increased its equity. The computed t value in equity related ratios was -0.01817 being less than t critical of 2.776445 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.986375 being greater than the 0.05. The mean difference was 3.071.

Table 4b: Stock Returns of Jubilee Holdings Ltd. Holdings Two Years Before and After It Cross-Listed

Two tailed T-test

				95% confidence level			
Measure	t-stat	df	t-critical	mean 1	mean 2	mean difference	p-value
Liquidity ratio	-16995	1	12.706	1.180	2.029	1.604	0.000
Profitability ratio	-0.1392	4	2.776	0.309	0.352	0.330	0.896
Gearing ratio	-0.1284	2	4.303	2.441	2.754	2.598	0.910
Equity-related	-0.0182	4	2.776	3.032	3.109	3.071	0.986

Source: Data analysis, 2011

urns of Cross and Non-Cross-listed Firms Two Years after Cross
Cross-Listed Firms

rison of TPS EA and KQ Two Years after KQ Cross-Listed

he results in table 5a, current ratio of KQ and TPS EA was 0.83184 and tively, whereas the quick ratio for the two firms was 0.72191 and 1.36593 point to note is that the current ratio of the two firms was below the mes. This may imply that they were not in a very good state as far as their oncerned. The interpretation of the quick ratio is that the position of KQ ow the stipulated standard of at least 1 time, but that of TPS EA was in a e state. The reason why the current ratio of TPS EA was below the uick ratio met the threshold might be due to the nature of business of the company is a service base d and thus its stock values are relatively very d to the other current assets.

Profitability ratios were as; ROCE of KQ and TPS EA was about 10% and pectively, while ROI was about 16% and about 21% for KQ and TPS EA nd GP margin was about 30% and 76% respectively for the two firms. ts of the data analyzed the profitability of TPS EA was higher than that of d be attributed to the nature of business carried out by the two firms. For ut its normal business. it requires aircrafts which are very expensive while es cameras and a media house which is relatively less expensive compared

atios as shown were; Debt-Equity Ratio which was 2.64008 and 0.4174 for EA respectively while Equity Ratio was 2.6745 and 1.08915 for KQ and ctively. The equity related ratios were; EY which was about 29% and 6% S EA respectively, while the DY which was about 8% and about 2.5% for A respectively, and the P/E ratio which was 3.4574 and 18.0794 times for EA respectively. Despite having increased the volume of its outstanding uity related ratios for KQ were in a better situation than those of TPS EA. h measures the years a firms will take to recoup its investments showed a n respect to TPS EA compared to KQ. The Karl parson's correlation

between the returns of the two firms was 0.6594; this means that the returns of the two firms were moving strongly on the same direction. Thus an increase in return on KQ by 1% would cause an increase of about 0.66% in the returns of TPS EA.

Table 5a: Comparison of TPS EA and KQ Two Years after KQ Cross-Listed

Details	KQ-Two years after Cross listing	TPS EA; Two years after Cross listing of KQ
Liquidity Ratios		
Current Ratio	0.83184	1.71157
Quick Ratio	0.72191	1.36593
Profitability Ratios		
Return on Capital Employed	0.096092	0.312025
Return on Investments	0.16126	0.20708
GP Margin	0.29529	0.75665
Gearing ratio		
Debt-Equity Ratio	2.64008	0.4174
Equity Ratio	2.6745	1.08915
Equity Related Ratios		
EY	0.2892	0.055311
DY	0.0769	0.025
P/E	3.4574	18.0794

Source; Data analysis, 2011

4.3.1.2 One Tailed T Test Results on the Comparison of TPS EA and KQ Two Years after KQ Cross-Listed

The computed t value in liquidity ratios was 0.0744 being lesser than t critical of 6.313752. A point to note is that these differences in liquidity ratios are statistically significant. This is confirmed by the p value of 0.074384 being less than 0.1. The mean difference was 1.1578 which was significant. TPS EA was more liquid than KQ, two years after KQ had first cross-listed. This might be attributed to either; KQ has fewer

amounts of current assets or KQ utilized its funds immediately after it raised capital through cross listing.

In respect to profitability ratios, the computed t value was 0.1546 being less than t critical of 0.184214 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.154564 being greater than the 0.05. The mean difference was 0.3047; this could be due to chance or error. A point worth noting is that TPS EA has a higher profitability margin than KQ which has a very high turnover.

The computed t value in gearing ratios was 5.661393 being less than t critical of 6.313752; the difference in gearing ratios is statistically significant. This is confirmed by the p value of 0.055651 being less than 0.1 greater than the 0.05. The mean difference was 1.7053; this was statistically significant. Though not significant the difference in gearing of the two firms is very large.

In respect to equity related ratios, the computed t value was 0.2581 being less than t critical of 2.919986 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.25807 being greater than the 0.05. The mean difference was 3.66387.

Table 5b: Comparison of TPS EA and KQ Two Years after KQ Cross-Listed

One tailed T-test

				95% confidence level			
Measure	t-stat	df	t-critical	mean 1	mean 2	mean difference	p-value
Liquidity ratio	0.0744	1	6.313752	0.776875	1.53875	1.1578	0.074384
Profitability ratio	0.1546	2	0.184214	0.184214	0.425252	0.3047	0.154564
Gearing ratio	5.6613	1	6.313752	2.65729	0.753275	1.7053	0.055651
Equity-related	0.2581	2	2.919986	1.2745	6.053237	3.66387	0.25807

Source; Data analysis, 2011

4.3.2.1 Comparison of EABL and Bamburi Cement Two Years after Cross listing of EABL

In respect to liquidity, as shown in table 6a, the returns of EABL were higher than those of Bamburi Cement two years after EABL had cross-listed. The current ratio of Bamburi Cement, two years after EABL, cross-listed was below 2 times. According to the results

in table, current ratio of EABL and Bamburi Cement was 2.4499 and 1.6458 respectively, whereas the quick ratio for the two firms was 1.43291 and 1.45322 respectively. Thus the quick ratio for both firms had surpassed the threshold of at least1 times. From the table it is portrayed that EABL holds more stock that Bamburi Cement and thus why the quick ratio is slightly lower than that of Bamburi Cement.

On profitability, ROCE of EABL and Bamburi Cement was about 26% and about 10% respectively, while ROI was about 16% and 11% for EABL and Bamburi Cement respectively, and GP margin was about 35%0 and 30% respectively for the two firms. From the results of the data analyzed the profitability of EABL was higher than that of Bamburi Cement. The ROCE uses the profits before interest and tax while the ROI normally uses profits after tax as its input. Using the outcome of these profitability ratios, EABL has a higher volume of expenses than Bamburi Cement.

The gearing ratios showed a different direction compared to the profitability and liquidity ratios. The results as shown in table 6a were; Debt-Equity Ratio which was 0.3738 and 0.6761 for EABL and Bamburi Cement respectively while Equity Ratio was 1.1002 and 1.39458 for EABL and Bamburi Cement respectively. This affirms that after a firm cross-list, there is less gearing when compared to others firms that have not cross-listed.

In respect to Equity-Related ratios, EABL had lower yields that Bamburi Cement. The P/E ratio which measures the number of years it takes to recoup the initial investments was higher than that of Bamburi Cement; thus it would take EABL a longer duration to recoup the funds it had tied to its investments. This could imply of the patience the investors have in the firm to allow their funds to stay in the firm. The equity related ratios as shown in table 6a were; EY which was about 8% and 10% for EABL and Bamburi Cement respectively, while the DY which was about 8% and 9% for EABL and Bamburi Cement respectively, and the P/E ratio which was 13.1541 and 10.4808 times for EABL and Bamburi Cement respectively. The overall correlation between the two stocks is 0.99697. This means that the returns for the two firms were moving strongly on the same direction. An increase in the returns on EABL by 1% could imply an almost similar increase in the returns of Bamburi Cement.

Table 6a: Comparison of EABL and Bamburi Cement 2 Years after Cross listing of EABL

Details	EABL; Two years after Cross listing	Bamburi Cement; Two years after Cross listing of EABL
Liquidity Ratios		
Current Ratio	2.4499	1.6458
Quick Ratio	1.43291	1.45322
Profitability Ratios		
Return on Capital Employed	0.26282	0.103
Return on Investments	0.103	0.1074
GP Margin	0.34653	0.300494
Gearing Ratios		
Debt-Equity Ratio	0.3738	0.6761
Equity Ratio	1.1002	1.39458
Equity Related Ratios		
EY	0.07602	0.0954
DY	0.082873	0.0091743
P/E	13.1541	10.4808

Source: Data analysis 2011

4.3.2.2 One Tailed T Test Results on the Comparison of EABL and Bamburi Cement 2 Years after Cross listing of EABL

In liquidity ratios, the computed t value was 0.7572 being lesser than t critical of 6.3138 indicating that the differences in liquidity ratios are not statistically significant. This is confirmed by the p value of 0.2937 being greater than the 0.05. The mean difference was 1.7455 which was not significant.

The computed t value in profitability ratios was 0.9941 being less than t critical of 2.1318 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.1882 being greater than the 0.05. The mean difference was 0.2127; this could be due to chance or error.

In gearing ratios, the computed t value was -0.5840 being less than t critical of 2.9200 indicating that the difference in gearing ratios is not statistically significant. This is

confirmed by the p value of 0.3092 being greater than the 0.05. The mean difference was 0.8862; this could be due to chance or error. The difference in the ratios could be attributed to the fact that EABL had raised more funds using share capital and thus reducing its level of debt.

The computed t value in equity related ratios was 0.1631 being less than t critical of 2.1318 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.4392 being greater than the 0.05. The mean difference was 3.9831; this could be due to chance or error.

Table 6b: Comparison of EABL and Bamburi Cement 2 Years after Cross listing of EABL

One tailed T-test

			95% confidence level				
Measure	t-stat	df	t-critical	mean 1	mean 2	mean difference	p-value
Liquidity ratio	0.7572	1	6.3138	1.9414	1.5495	1.7455	0.2937
Profitability ratio	0.9941	4	2.1318	0.2551	0.1703	0.2127	0.1882
Gearing ratio	-0.5840	2	2.9200	0.7370	1.0353	0.8862	0.3092
Equity-related	0.1631	4	2.1318	4.4377	3.5285	3.9831	0.4392

Source: Data analysis 2011

4.3.3.1 Comparison of the Stock Returns of Jubilee Holdings and Pan Africa Insurance, Two Years after Jubilee Cross-Listed

According to the analysis on table 6a below, the liquidity of Pan Africa was higher than that of Jubilee Holdings Ltd. These ratios though are still within the recommended range of 2 and 1 for Current and Quick Ratio respectively. Current ratio of Jubilee Holdings Ltd. and Pan Africa Insurance was 2.0293 and 2.6882 respectively, whereas the quick ratio for the two firms was 2.0293 and 2.0468 respectively.

The profitability ratios were as; ROCE of Jubilee Holdings Ltd. and Pan Africa Insurance was about 6% and about 27% respectively, while ROI was about 22% and about 10% for Jubilee Holdings Ltd. and Pan Africa Insurance respectively, and GP margin was about 77% and about 38% respectively for the two firms. From the results of the data analyzed the profitability of Jubilee Holdings Ltd. was higher than that of Pan Africa Insurance.

The table also shows the gearing results for Jubilee Holdings Ltd. and Pan Africa Insurance. These are as follows; Debt-Equity Ratio which was 0.8414 and 0.7171 for Jubilee Holdings Ltd. and Pan Africa Insurance respectively while Equity Ratio was 4.6671 and 1.31117 times for Jubilee Holdings Ltd. and Pan Africa Insurance respectively. The equity related ratios as shown in table were; EY which was about 11% and about 9% for Jubilee Holdings Ltd. and Pan Africa Insurance respectively, while the DY which was about 2.5% and about 2% for Jubilee Holdings Ltd. and Pan Africa Insurance respectively, and the P/E ratio which was 9.1938 and 10.7438 times for Jubilee Holdings Ltd. and Pan Africa Insurance respectively. The correlation co-efficient between the two stocks is 0.92392. This means that the returns of the two firms were strongly moving on the same direction. A reduction in the returns of Jubilee Holdings by 1% could mean a decrease in returns of Pan Africa by about 0.92%

Table 7a: Comparison of the Stock Returns of Jubilee Holdings and Pan Africa Insurance, Two Years after Jubilee Holdings Cross-Listed

Details	Current Stock Returns-Jubilee	Current Stock Returns, Pan Africa
Liquidity Ratios		
Current Ratio	2.0293	2.6882
Quick Ratio	2.0293	2.0468
Profitability Ratios		
Return on Capital Employed	0.06022	0.27423
Return on Investments	0.22257	0.1006
GP Margin	0.7721	0.37594
Gearing Ratios		
Debt-Equity Ratio	0.8414	0.7171
Equity Ratio	4.6671	1.31117
Equity-Related Ratios		
EY	0.1088	0.0931
DY	0.025	0.0192
P/E	9.1938	10.7438

Source: Data analysis, 2011

4.3.3.1 One Tailed T Test Results on Comparison of the Current Stock Returns of Jubilee Holdings and Pan Africa Insurance

In liquidity ratios, the computed t value was -1.0546 being lesser than t critical of 6.3138 indicating that the differences in liquidity ratios are not statistically significant. This is confirmed by the p value of 0.2415 being greater than the 0.05. The mean difference was 2.1984 which was not significant.

The computed t value on profitability ratios was 0.4409 being less than t critical of 2.3534 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.3446 being greater than the 0.05. The mean difference was 0.3009; this could be due to chance or error.

According to the gearing ratios, the computed t value was 1.0000 being greater than t critical of 0.2669 indicating that the difference in gearing ratios is statistically significant. This is however not confirmed by the p value of 0.8989 which is greater than the 0.05. The mean difference was 0.8862; which is statistically significant.

The computed t value in equity related ratios was 4.0000 being greater than t critical of 0.4593 indicating that the difference in gearing ratios is statistically significant. This is indeed confirmed by the p value of -0.1088 being greater than the 0.05. The mean difference was 3.9831 which were statistically significant at 95% degree of confidence.

7b: Comparison of the Current Stock Returns of Jubilee Holdings and Pan Africa
ance

ıiled T-test

				95% confidence level			
re	t-stat	df	t-critical	mean 1	mean 2	mean difference	p-value
lity ratio	-1.0546	1	6.3138	2.0293	2.3675	2.1984	0.2415
ıbility ratio	0.4409	3	2.3534	0.3516	0.2503	0.3009	0.3446
ıg ratio	1.0000	0	0.2669	2.75425	1-014135	1.8842	0.8989
-related	4.0000	0	0.4593	3.1092	3.6187	3.36095	-0.1088

ource: Data analysis, 2011

Current Stock Returns of Cross and Non-Cross-listed Firm

1.1Comparison of the Current Stock Returns of EABL and Bamburi nent

ording to the results in table 8a, the current Stock Returns of EABL in terms of idity is indicating a higher value than that of Bamburi Cement. The current ratio of 3L was below 2 times while the quick ratio of Bamburi Cement was below 1. Current) of EABL and Bamburi Cement was 1.9773 and 1.0169 times respectively, whereas quick ratio for the two firms was 1.3081 and 0.71401 respectively.

espect to profitability, ROCE of EABL and Bamburi Cement was about 51% and ut 16% respectively, while ROI was about 38% and 24% for EABL and Bamburi nent respectively, and GP margin was about 53% and about 36% respectively for the firms. From the results of the data analyzed the profitability of EABL was higher ı that of Bamburi Cement.

gearing ratios, the results as shown in table 8a were; Debt-Equity Ratio which was 02614 and 1.9985 for EABL and Bamburi Cement respectively while Equity Ratio s 1.1026 and 2.1196 for EABL and Bamburi Cement respectively.

The equity related ratios as shown in table were; EY which was about 6% and about 5.3% for EABL and Bamburi Cement respectively, while the DY which was about 3.8% and 13% for EABL and Bamburi Cement respectively, and the P/E ratio which was 15.7068 and 18.898 times for the two firms respectively. The correlation co-efficient between the two stocks was 0.9878. This is an indicator that their financial returns are strongly moving on the same direction.

Table 8a: Comparison of the Current Stock Returns of EABL and Bamburi Cement

Details	EABL Current Stock Returns	Bamburi Cement Current Stock Returns
Liquidity Ratios		
Current Ratio	1.9773	1.0169
Quick Ratio	1.3081	0.71401
Profitability Ratios		
Return on Capital Employed	0.5051	0.156344
Return on Investments	0.37662	0.23664
GP Margin	0.53482	0.3605
Gearing ratios		
Debt-Equity Ratio	0.102614	1.9985
Equity Ratio	1.1026	2.1196
Equity Related Ratios		
EY	0.0637	0.529
DY	0.0377	0.13201
P/E	15.7068	18.898

Source: Data analysis, 2011

4.4.2.1 One Tailed T Test on Comparison of the Current Stock Returns of EABL and Bamburi Cement

The computed t value was 2.116234 being lesser than t critical of 6.313752 indicating that the differences in liquidity ratios are not statistically significant. This is confirmed by

the p value of 0.140514 being greater than the 0.05. The mean difference was 1.2541which was not significant; this could be attributed to chance or error.

The computed t value was 2.881681 being greater than t critical of 2.131847 indicating that the difference in profitability ratios is statistically significant. This is confirmed by the p value of 0.022469 being less than the 0.05. The mean difference was 0.022469; which is statistically significant.

The computed t value was -2.8918 being less than t critical of 6.313752 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.105976 being greater than the 0.05. The mean difference was 1.3308; this could be due to chance or error. This could be attributed to the increase in share capital after cross listing.

The computed t value was -0.15442 being less than t critical of 2.131847 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.442378 being greater than the 0.05. The mean difference was 5.8945; this could be due to chance or error.

Table 8b: comparison of the current Stock Returns of EABL and Bamburi Cement

One tailed T-test							
				95% confidence level			
Measure	t-stat	df	t-critical	mean 1	mean 2	mean difference	p-value
Liquidity ratio	2.1162	1	6.3138	1.6427	0.8655	1.2541	0.1405
Profitability ratio	2.8817	4	2.1318	0.4722	0.2512	0.3617	0.0225
Gearing ratio	-2.8918	1	6.3138	0.6026	2.0591	1.3308	0.1060
Equity-related	-0.1544	4	2.1318	5.2694	6.5197	5.8945	0.4424

Source: Data analysis, 2011

4.4.1.2 Comparison of the current Stock Returns of KQ and TPS EA

According to the results in table 9a, current ratio of KQ and TPS EA was 1.5165 and 1.85365 respectively, whereas the quick ratio for the two firms was 1.4275 and 1.7234 respectively. A point to note is that in both firms, the current ratios did not meet the stipulated standard of at least two times.

In respect to profitability, ROCE of KQ and TPS EA was about 9% and about 4.3% respectively, while ROI was about 15% and about 30% for KQ and TPS EA respectively.

and GP margin was about 27% and about 80% respectively for the two firms. From the results of the data analyzed the profitability of KQ was higher than that of TPS EA. This is despite the fact that the GP margin showed a major difference in the Stock Returns. and also the other ratios portrayed the Stock Returns of TPS EA as being greater than that of KQ.

In respect to gearing ratios, the results as shown in table below were; Debt-Equity Ratio which was 1.96757 and 0.5328 for KQ and TPS EA respectively while Equity Ratio was 2.4221 and 1.0274 for KQ and TPS EA respectively.

KQ has higher Equity-related ratios. These were; EY which was about 35% and about 6.3% for KQ and TPS EA respectively, while the DY which was about 7.3% and 3.9% for KQ and TPS EA respectively, and the P/E ratio which was 2.8674 and 15.9504 times for KQ and TPS EA respectively. The Karl-Pearson's correlation between the two stocks is 0.63895. This is a strong indicator that the Stock Returns of the two firms is moving in the same direction

Table 9a; Comparison of the Current Stock Returns of KQ and TPS EA

Details	KQ Current Stock Returns	TPS EA Current Stock Returns
Liquidity Ratios		
Current Ratio	1.5165	1.85365
Quick Ratio	1.4275	1.7234
Profitability Ratios		
Return on Capital Employed	0.088	0.4296
Return on Investments	0.14954	0.29944
GP Margin	0.2734	0.79888
Gearing ratios		
Debt-Equity Ratio	1.96757	0.5328
Equity Ratio	2.4221	1.0274
Equity Related Ratios		
EY	0.34875	0.0627
DY	0.07292	0.0382
P/E	2.8674	15.9504

Source: Data analysis, 2011

4.4.2.2 One Tailed t Test Results on Comparison of the Current Stock Returns of KQ and TPS EA

On liquidity, The computed t value was -4.01291 being greater than t critical of 2.919986 indicating that the differences in liquidity ratios is statistically significant. This is confirmed by the p value of 0.028427 being less than the 0.05. The mean difference was 1.6303 which is significant. TPS EA is more liquid than KQ.

The computed t value on gearing was -2.12924 being less than t critical of 2.353363; the difference in profitability ratios is statistically significant. This is confirmed by the p value of 0.06155 which is less than 0.1 but is greater than the 0.05. The mean difference between the returns of the two firms was 0.3398 which is statistically significant.

On gearing ratios, the computed t value was 4.2122 being greater than t critical of 2.9200 indicating that the difference in gearing ratios is statistically significant. This is confirmed by the p value of 0.0260 being less than the 0.05. The mean difference was 1.4875; these results are statistically significant and could mean that the firm's investment in very heavy Boeing Airplanes was still felt as it had not recovered from the debts it owed.

The computed t value on equity related ratios was 0.0260 being less than t critical of 2.9200 indicating that the difference in gearing ratios is not statistically significant. This is confirmed by the p value of 0.2558 being greater than the 0.05. The mean difference was 3.2234; this could be due to chance or error.

Table 9b; Comparison of the Current Stock Returns of KQ and TPS EA

One tailed T-test

				95% confidence level			
Measure	t-stat	df	t-critical	mean 1	mean 2	mean difference	p-value
Liquidity ratio	-4.0129	2	2.9200	1.4720	1.7885	1.6303	0.0284
Profitability ratio	-2.1292	3	2.3534	0.1703	0.5093	0.3398	0.0615
Gearing ratio	4.2122	2	2.9200	2.1948	0.7801	1.4875	0.0260
Equity-related	0.0260	2	2.9200	1.0964	5.3504	3.2234	0.2558

Source: Data analysis, 2011.

3 Comparison of Jubilee Holdings Ltd. and Pan Africa-insurance

s is indicated in table 1. In terms of liquidity, Pan Africa is in a better position than ilee Holdings Ltd. Equity ratios for Jubilee Holdings Ltd. are greater than that of Pan ica insurance. From the analysis, the profitability and returns for Jubilee Holdings . were higher than those of Pan Africa Insurance. The correlation between the returns he two firms is 0.92392.

APTER FIVE

MMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of the Results

In respect to shareholding, it was evident that the firms in the study are associates; e are investors who hold between 25%-49% of their outstanding equity stock. Kenya ways has KLM (Konink Lijke Luchuaart Maatschappj) as a major investor, who holds ,020,025 shares. This constitutes 26% of its share capital. EABL's largest investor is geo Kenya Ltd, who holds 42.82% of its share capital constituting 282,174,649 res, and in Jubilee Holdings Ltd. the major shareholder is Aga Khan Fund for nomic Development who owns 17,093,182 shares which comprise 37.98% of its standing share capital.

From the data collected and analyzed, eight *t* tests on the financial results were ducted. Five of these tests were one tailed while three were two tailed and they totaled individual tests. Out of these tests, only nine showed results that were statistically nificant. Liquidity for the firms after cross listing improved; this is shown by EABL Jubilee Holdings with the exception of Kenya Airways. There was such a big drop in liquidity of KQ that the results were statistically significant at 95% confidence level. ere was also great improvement in the liquidity of Jubilee Holdings two years after it l cross-listed. In EABL, the current and quick ratios outperformed the recommended 2 l 1 times parameter. The return ratios also improved when the firms cross-listed except case of Kenya Airways; in Kenya Airways, it is only the GP Margin that increased. ms could get more ways to utilize their investment opportunities, as there could be ough money to undertake viable projects with greater returns.

With exception of Kenya Airways, Gearing ratios decreased when most of the ns decided to raise capital across the border. The debt-equity ratios and equity ratios most firms reduced drastically. The Equity-related ratios of all firms reduced nificantly after they cross-listed. This is in respect to the Earnings Yield, EPS and vidend Yield. The GP margin for all firms increased showing that the issue of new

shares indeed improved their profitability. This is might be due to the utilization of the funds in ventures which were profitable.

The comparative study of cross-listed and non-cross-listed firms, two years after the cross-listed first raised capital beyond the national boundaries, revealed several results: in liquidity ratios, both EABL showed better current ratio results than Bamburi Cement while the Quick ratio of Bamburi Cement was slightly higher than that of EABL. KQ and Jubilee Holdings Ltd. ratios which were all lower than that of TPS EA and Pan Africa Insurance Corporation respectively. In profitability ratios, the performance of EABL and Jubilee Holdings was higher than those of the non-listed firms. This was however not the case in respect to KQ which had lower profitability ratios than TPS EA. Gearing ratios were greater for cross-listed firms for Jubilee and KQ than those of the non-cross-listed firms. EABL however showed a different outcome when compared to Bamburi Cement two years after EABL had cross-listed; its gearing was lower than that of Bamburi Cement. This could be attributed to the fact that increase in its equity reduced its gearing. The Equity-related ratios for Jubilee Holdings and KQ were more favourable than those of Pan Africa Insurance and TPS EA respectively. The situation was however different in the case of EABL; here, the reward to shareholders was smaller and it would take more time for them to recoup their capital investments. The Karl Pearson's correlation co-efficient for the financial performance of the firms were; between KQ and TPS EA it was 0.659385, between Jubilee Holdings and Pan Africa Insurance it was 0.99697, and between EABL and Bamburi Cement it was 0.92392.

In the comparison of the current financial performance of cross-listed and non-cross-listed companies, it was found that the liquidity ratios for KQ and Jubilee Holdings were smaller than that of their non cross-listed counterparts. This was however different in respect to EABL compared to Bamburi Cement. The profitability ratios portrayed a stronger position for EABL compared to Bamburi Cement, but a weaker position for KQ vis a vis TPS EA. On gearing ratios, it is only EABL which showed a lower ratio than Bamburi Cement. KQ and Jubilee showed a higher ratio compared to TPS EA and Pan Africa Insurance respectively. The current profitability of all cross-listed companies was better than that of non-cross-listed companies. The Equity related ratios of KQ and Jubilee were higher than those of TPS EA and Pan Africa Insurance respectively, while

that of EABL was lower than the one for Bamburi Cement. The correlation between the financial performance of the firms was: EABL and Bamburi Cement, 0.9878; TPS EA and KQ, 0.63895; Jubilee Holdings and Pan Africa Insurance, 0.92392.

5.2 Conclusions

When comparing the firm's financial performance two years before they cross-listed, and two years after cross listing, liquidity improved. This might be due to the 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. From the results, it was evident that in optimal situations, increased availability of funds leads to more profitability of a firm. 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 will ensure that there is no excess control in decision making by third parties. The increase in profitability after going across the border was not 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. A point to lay much emphasis is that all financial results two years before and after cross listing expect liquidity of Jubilee Holdings and KQ were not statistically significant at 95% confidence level. This may be due to very high investments undertaken by KQ, its liquidity reduced drastically whereas the liquidity of Jubilee Holdings may have increased due to easier availability of funds.

It can be noted two years after cross listing, the liquidity of firms increases compared to those firms that have not undertaken cross listing. This was affirmed by the analysis of KQ and EABL when compared with TPS EA and Bamburi Cement respectively. However, when a t test was conducted on these results at 95% confidence level it was found that they were not statistically significant. It was confirmed that firms when they cross-list generate a better return that firms which have not cross-listed. This was true in the case of EABL and Jubilee Holdings. The case of Jubilee Holdings compared to Pan Africa Insurance was statistically significant at 95% confidence level. It can also be stated that when firms cross-list, their liquidity increases. This is may be due to the heavy

cash inflows brought about by the sale of huge chunks of shares across the borders. After firms' cross-list, their debt ratios reduce as shown in the case of EABL. There was however an exception in the situation of KQ which may have been attributed to the fact that the firm invested heavily in the year 2005 on modern state-of-the-art Boeing aircrafts and aggressively increased its coverage routes. In this year, the firm bought two new modern aircrafts and massively increased the routes it covered. The results for KQ further differ from the notion because it spent cash and borrowed heavily in year 2005 to aggressively finance its growth strategies. For the firm to sustain its heavy investment needs, it had to raise debt to compliment the equity it had raised through cross listing in the year 2004. There is a strong correlation of the returns of firms in similar sub-sectors of the economy. This was explained by positive correlation results of above positive 0.5. Correlation between firms was greater than 0.5 for both current performance and two years after the cross-listed firms had first gone across the borders.

When comparing the current financial performance for cross-listed and non-cross-listed companies, a point to note is that ROCE for Jubilee Holdings is lower than that of Pan Africa Insurance, while the ROI for Jubilee is higher than that of Pan Africa Insurance. This could be attributed to the fact that current profitability margin for Jubilee is higher than that of Pan Africa Insurance. The price earnings ratio for all firms that had cross-listed was smaller than that of similar firms that had not cross-listed in the same subsectors of the economy. From the research the current Financial Performance of Kenya Airways has been dwindling. This may be attributed to the Post Election Violence which took place in early 2008. This led to decline of tourists arrivals in the country which meant loss of business to the national carrier. The menace left by the post election violence was further aggravated by the rising oil prices and the global financial crises. The oil price rises increased its costs of operation while the global financial crises made it lose revenue as tourists cut their travelling. The t test that was conducted at 95% degree of confidence portrayed that the liquidity and gearing of the current performance of KQ in comparison with TPS EA was statistically significant; this indeed affirms of the dwindling performance of the national carrier.

From the results of the study, it can be generally concluded that cross listing generally improves firms' financial performance. This is because funds are availed, great investment ideas are financed and this translates to more profitability.

5.3 Recommendations for Further Study

Further research should be done after duration of two years to assess the effects on their performance. This is because the study did not cover all the cross-listed firms, as their duration was not significant to show the effects of cross listing on their financial performance. These include Equity Bank and Kenya Commercial Bank which cross-listed for the first time in June 2009 and November 2008 respectively in the Ugandan Bourse. It is also expected that with the likely trend in cross listing, more firms will have cross-listed by then and thus present a more comprehensive view. More firms in Kenya have indicated their intention to cross list by the year 2012. Future Researches should also try to study the specific cross listings undertaken by firms and treat them individually to see the effects on the firm. For instance, they should treat cross listing of EABL on USE and on DSE differently. This will establish the effect of raising capital off shore on a specific firm.

A study specifically on Jubilee Holdings should be conducted. The firm showed different results in respect to its financial ratios. It was different in that it was performing different from the firms in other sectors that had cross-listed. A study on comparison of Jubilee Holdings Ltd. with non-cross-listed insurance companies may reveal why Jubilee Holdings Ltd. is completely different from other cross-listed firms.

Future researches should concentrate on qualitative factors that could influence the financial performance of cross-listed firms. These may include stability of the country and customer's perception. These studies should also research on why the firms in the Agricultural sector have not undertaken cross listing; is it because of the perennial droughts that are faced in the country?

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