THE IMPACT OF CROSS LISTING ON SHARE RETURNS FOR FIRMS CROSS-LISTED IN THE EAST AFRICA SECURITIES EXCHANGES

BY

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DECLARATION

This project is my original work and has not been submitted for award of a degree in any other institution.

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DEDICATION

To My beloved Parents, Mr & Mrs Kilimo

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LIST OF ABBREVIATIONS

BV	Book value
DSE	Dar es Salaam Stock Exchange
EABL	East Africa Breweries Limited
EAC	East Africa Community
EB	Equity Bank
JIH	Jubilee Insurance Holdings
KCB	Kenya Commercial Bank
KQ `	Kenya Airways
MV	Market value
NMG	Nation Media Group
NSE	Nairobi Securities Exchange
ROE	Return on Equity
RSE	Rwanda Stock Exchange
SR	Stock return
US	United States
USE	Uganda Securities Exchange

ABSTRACT

Cross listing is one among several corporate policies that may affect the performance of firms. The celebrated benefits of cross listing are increased liquidity, reduction in the cost of capital, broadening stakeholder base and bonding of firms to stronger legal frameworks among others. The objective of the study was to establish the effect of cross listing on share returns of firms cross-listed in the East Africa Securities Exchanges. The study employed an event study methodology since it involved the comparison of share returns three years before and three years after an event, in this case cross listing. The population of the study included all the cross-listed firms in the East Africa Securities Exchange with their primary listing in the Nairobi Securities Exchange. The final sample of the study included 3 frims that had their primary listing at the NSE and had cross-listed in any other East Africa between 2010 and 2017 firms .The study period was three years before cross listing and three years after cross listing of each of the cross-listed firms. Secondary data on share prices and dividends per share was collected from the NSE handbooks of the respective periods under study. The share prices and dividends paid were used in the computation of monthly share returns. The study used the paired samples t-test to determine whether cross listing had an impact on the share returns of the cross-listed firms. The study found the t statistics of NMG, Centum Investments and Uchumi supermarket to be statistically insignificant at the 95% confidence level. The study recommended that companies in East Africa that choose to cross list should carefully evaluate the market in which they want to cross list to so as to determine what other benefits they are likely to achieve since the improvement in share returns is not one of them.

CHAPTER ONE: INTRODUCTION

1.1. Background of the study

Cross listing is one among several corporate policies that may affect the performance of firms. The number of cross listings from emerging markets has grown significantly over the past few years. Geranio (2012) observes that more firms have increasingly listed their shares in more than one security exchange in countries other than their own. According to Gagnon and Karolyi (2010), as at 2008 around 3,000 companies had at least two listings. They further highlight that despite increasing market integration, firm's desire to cross list does not fade. Cross listing is driven by the desire to raise capital, the globalization revolution and the opening up of financial markets of most countries. The celebrated benefits of this trend as enumerated by Karolyi (2006) are increased liquidity, reduction in the cost of capital, broadening stakeholder base and bonding of firms to stronger legal frameworks. These factors have popularized cross listing that most nations around the globe including developing countries are embracing cross listing as a financial strategy to boost their markets.

Theoretically, the market segmentation theory explained by Alexander, Eun, and Janakiramanan (1987), predicts that when markets segment, the unsystematic risk of stock reduces which leads to an increase in stock prices. The liquidity preference theory suggests that investors need compensation for holding stock with lower liquidity (Amihud &Mendelson, 1986, 1988 & 1989). The Investor recognition theory as put forth by Merton (1987) posits an increase in a stock's prominence among investors and consequently, an increase in shareholder base causes the return required by investors to reduce and a simultaneous rise in the firm's value. The bonding hypothesis affirms

that cross listing to other foreign exchanges is a good means for bonding firms to stronger legal frameworks (Chisazda, 2013). This is especially key for firms in jurisdictions with less established mechanisms for investor protection.

Muheirwe, Memba & Kule (2015) argue that ever since 1999, when the East Africa Community treaty was signed, cross listing has become more prominent. The move of more firms to cross list within the region is great progress in the East Africa Community's drive for regional integration (Onyuma, Mugo & Karuiya, 2012). The Nairobi Securities Exchange (NSE), Dar es Salaam Stock Exchange (DSE), Uganda Securities Exchange (USE) and Rwanda Stock Exchange (RSE) makes up the East Africa Securities Exchanges.

1.1.1.Cross-listing

Cross listing is a situation where a company lists its shares in more than one stock exchange in different jurisdictions in addition to its home country's stock exchange at the same time. According to Lee and Yerbassova (2013), the securities of a cross-listed firm will be available for sale on a stock exchange that resides outside their home country. Cross listing can also be referred to as cross-border listing or dual listing. This is done by a firm, which has issued its shares on the domestic market and wants to issue the same shares on another foreign market at the same time or subsequently (Onyuma et al, 2012).

Firms should issue their stocks in a country where they can achieve the highest price - all transactional costs included. When faced with a choice of whether to list in more than one country, a firm should choose a country where the expected return on equity

is lower. The price differential of similar securities in different countries is due to market segmentation (Levi 1996). If markets are entirely unified, the projected return required by investors of the same security will be the same in the different markets. The fact that markets are segmented has motivated firms to issue their shares in more than one country's equity market.

According to Roosenboom & Dijk (2009), there are four major motivations for firms to cross list. Market segmentation provides more investment opportunities by reducing barriers to investments. Increased liquidity lowers costs by reducing the bid – ask spreads. Cross listing acts as an indicator of the financial strength of a company to market participants. According to the bonding hypothesis, cross listing acts as a sign of the willingness of companies from jurisdictions with poor corporate governance to improve their governance procedures by listing in jurisdictions with strong corporate governance procedures.

Firms profit from cross listing in numerous ways, the principal advantage being increased liquidity (Amihud &Mendelson, 1986) and ease in raising money (Halling et al, 2004 & Mittoo, 1992). Additional profits comprise lower cost of capital (Merton, 1987), access to a wider market for their goods and services, a wider task force and improved disclosure of information (Baker, Nofsinger &Weaver, 2002).Firms also get an opportunity for improving investors protection by listing in regimes with advanced corporate governance procedures (Stulz, 1999). The number of firms that have listed on more than one stock exchange can be a measure of cross listing. It is however not possible to study firms at the same time because they usually do not cross-list concurrently.

1.1.2. Share Returns

In the stock market, shareholders invest their money with an aim of earning income. The income earned from the investment in company's shares is referred to as stock returns. Lee and Kumar (2013) defines stock returns as a loss or gain on an investment that is highly sensitive to prospects and fundamentals in the market.

Stock returns is a measure of the performance of a company stock. The objective of a firm is to maximize investment returns, which is measured by the change of the firm's stock price over time. Stock returns are therefore a measure of a company's financial performance. According to Ross et al (2010), the return of a stock is composed of the expected or normal return and uncertain return. The normal return is the return that arises based on the information that investors have that bears on the stock. The uncertain return arises from unexpected information that flows in to the market in the year. An example of such information is a change in the board of directors or profit warnings.

The return of a stock is a key factor that investors in the stock market look at while selecting their investments (Moridi & Mousavi, 2009). Investors like to know how much they are likely to get in return of investing in a stock and how much these are likely to grow in future. Stock returns can either be in the form of capital gains or dividend payments. Capital gains or loss refers to the difference between the original price and the price at which the stock is sold or likely to be sold (Fischer & Jordan, 2001). Stock return is measured as follows;

Stock return = $\frac{(P1-P0) +D1}{P0}$

Where;

P0 = Stock price at the beginning of the period

P1 = Stock price at the end of the period

D1 = Dividends paid in period 1

1.1.3. Cross Listing and Share Returns

According to Stulz (1999), cross listing counters the effect of market segmentation. In segmented markets, investors require superior returns. The additional returns is to cover them for not having a fully diversified portfolio and therefore having to bear risk unique to a particular economy (Inder et al. 2006). When companies in these countries list their shares in a different jurisdiction, the share prices are likely to increase and accordingly a decrease in their expected returns as the unsystematic risk unique to the domestic economy dissipates (Forester & Karolyi, 1996).

In an efficient market, the price of a stock is said to reflect all available information (Fama, 1970). In such a market, the information content of the announcement by a company of its decision to cross list will likely lead to a change in the share price. If investors perceive that by cross listing the value of the firm will increase, then this will lead to a rise in the company's share price. If the market however perceives that the decision will reduce value, then the share price will fall. According to Hargis & Ramanlal (1998), when firms from segmented markets list their shares in other markets, their stock prices are likely to increase with a concomitant decrease in expected returns.

Karolyi (2006) argued that cross listing enables a firm to gain prestige and publicity. This increases the public confidence and trust to invest in the firm and therefore a rise in the demand for the firm's securities. A rise in the demand of securities of a firm will push the prices of its shares up. Doidge et al (2005) suggest that majority shareholders of firms cross–listed cannot enjoy as much private benefits from control in the detriment of the minority shareholders as in a non-cross-listed firm. Cross -listed firms are therefore in a superior position to exploit growth opportunities. This will consequently lead to an increase in the firm's value.

1.1.4. Securities Exchanges across East Africa

From the time when the East Africa community treaty was signed, cross listing has become more prominent in the East African securities market. Cross listing across East Africa has served as a great milestone for the EAC's effort towards regional integration. Nairobi Securities Exchange (NSE), Dar es Salaam Stock Exchange (DSE), Uganda Securities Exchange (USE) and Rwanda Stock Exchange (RSE) are the four major exchanges that makes up the East African bourses. There are 100 companies listed in the East Africa Securities Exchanges. The Capital Markets Authority of the respective countries ensures the listed stocks comply with the laid down regulations. The four markets have almost similar laws and regulations that govern the trading of securities. The only differences arise from the different levels of development of these markets.

Cross listing has become a way for firms to distinguish themselves from each other in East Africa. There are currently eight Kenyan firms and one Ugandan firm that have cross-listed across East Africa. These firms include Kenya Airways (KQ), Jubilee Insurance Holding (JIH), Nation Media Group (NMG), East Africa Breweries Limited

(EABL), Equity Bank (EB), Uchumi Ltd, Kenya Commercial Bank (KCB), Centum Investment Company Ltd (Centum),and Umeme Ltd.

KCB, NMG and Uchumi Ltd have listed in all the four bourses in East Africa that is Kenya, Uganda, Tanzania and Rwanda. JHL, KQ, EABL have listed in Kenya, Uganda and Tanzania; Centum, EB and Umeme Ltd have listed in Kenya and Uganda. Cross listing enables the firms to enjoy increased liquidity, wider access to capital and a broader market for their goods and services due to increased visibility.

1.2. Research Problem

According to Eun and Sabherwarl (2003), firms cross list to benefit from reduced transactional cost, better investor awareness and improved firm's visibility. This has helped the firm's cope with the changes in the business environment. Forester and Karolyi (1996) argue that a move towards market integration because of cross listing will cause firms' share price to rise and consequently reduce its cost of capital. Firms that cross list will be able to benefit from publicity and prestige (Karolyi, 2006). Such status will increase public and therefore investor confidence causing the demand of such securities to increase. An increase in the demand of securities will lead to an increase in the share price. According to Fama (1970), share prices in an efficient market are expected to reflect all available information. An announcement by a company of its decision to cross list will lead to changes in the share price if the market is efficient. Therefore, if investors perceive that cross listing will lead to increased firm value, share price will rise and vice versa.

In East Africa, the development of cross listing across stock markets has been a great milestone in the EAC's drive towards market Integration. There are currently (8)

Kenyan companies cross-listed across East Africa and one Ugandan firm (Umeme) listed in the Nairobi Securities Exchange. Cross listing in East Africa has become a way of companies distinguishing themselves from others. Companies that have already cross-listed cite more financial and non-financial benefits. This is likely to encourage more firms to cross list. The announcement of companies already cross-listed to list in other stock Exchanges within the East African region is of interest to academicians and researchers seeking to understand how cross listing affects the share returns of firms and the possible interest of other firms to follow suit.

Globally, Inder et al. (2006) conducted a research to determine the impact of cross boarder listing on the growth of US firms. The study established that firms could cross list to increase their chances to access lower cost of external financing which will be utilized in more projects that are profitable. Ndubuisi (2013) studied the impact of cross listing on shareholder returns of Canadian mining firms in the Frankfurt stock exchange. The study divulged that in the short run, the Canadian stocks react negatively to Cross listing in Frankfurt, however in the long run, cross listing in Frankfurt showed a declined negative reaction. Omayo (2016) studied the extent to which listing across boarders affect the volatility of share returns for companies that have cross-listed in East Africa. The study established that monetary performance, ease of sale of the shares, price of stocks and transaction costs had a huge impact on the variability of stock returns of cross-listed firms. Burns and Bill (2006) sought to explain how cross listing aids in legal bonding. From the study it was established that US investors pay close attention to the shareholder protection framework of the cross-listed firm and

therefore unlikely to invest in stock of firms from jurisdictions that do not emphasize on the protection of minority shareholders.

Locally, from a study done by Nyaga (2013) to determine the effects of listing across borders on the monetary performance of a firm, it was established that there is a positive significant difference on abnormal returns of the share prices after cross listing. Aluoch (2012) did a study on the impact of cross boarder listing on stock earnings and established that in terms of risk, the effect of cross listing was varied across the sampled firms. A study on the effect of mergers and acquisition across borders by Odhiambo (2013) revealed that mergers and acquisition across borders has a progressive effect on the financial strength of the acquiring company. Wanjiru (2013) sought to evaluate the relationship between cross listing and the liquidity of the cross-listed shares. From the study, it was evident that cross-listed firms traded more volumes of shares compared to the non-cross listed firms. The markets capitalization of these firms and the bourses in which they had cross-listed also showed an upward trajectory. From the above empirical studies, it is clear that studies on the effect of cross listing on share returns of companies cross-listed in the East African bourses have not been done extensively. The study therefore aims to fill the gap by attempting to answer the question: "Does Cross listing affect the share returns of companies cross listed in the East Africa Securities Exchanges?"

1.3. Research Objective

To establish the effect of cross listing on share returns of firms cross-listed in the East Africa Securities Exchanges.

1.4. Value of the Study

Information from this study will be valuable to firm's decision makers as it will be able to inform their decisions of whether to cross list or not. It will also clearly show firm's management the undisputed benefits of cross listing and what they are out to benefit should they choose to cross list. Rival firms of already cross-listed companies will also be able to decide as to whether they should strategically respond to their peers cross listing plan of action or not.

The outcome of this study will be of great use to regulators and policy makers of the East African Securities Markets. It will inform policy makers on what policies should be put in place to either facilitate or discourage cross listing depending on the direction of the outcome. It will also provide information to policy makers as to whether market integration has any advantages to the respective markets. Regulators will be informed as to the kind of regulation that should be put in place to either foster or discourage cross listing should the results highlight any advantages or disadvantages of cross listing.

This study will contribute to the finance discipline and provide a point of reference for academicians on the effect of cross listing on share returns. It will provide a basis of further studies for researchers' who are interested in doing more studies on the effect of cross listing on share returns. The study will greatly contribute to the field of finance, as cross listing is a fast emerging issue in the world's financial markets, and thus a basis for further research.

Due the fact that cross listing is quite an upcoming concept in developing countries, this study will help the government in formulation of policies and strategies in as far as market integration is concerned. It will also highlight to the government the kind of benefit that firms in their jurisdiction will enjoy because of cross listing.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

This chapter provides the theoretical literature review, determinants of share returns, empirical review and summary of literature review.

2.2. Theoretical Review

Theoretical review provides a strategy for the study and interpretation of findings. Through the examination of previously seasoned understanding of variables involved, theoretical review gives a summary of theory regarding a particular problem.

2.2.1. Market Segmentation Theory

Culbertson (1957) and Modigliani & Sutch (1966) developed the theory of Market Segmentation. It argues that markets are segmented in terms of the length of maturities of securities. Shareholders have dissimilar maturity needs and this leads them to invest in securities that meets their unique maturity needs. The investors prefer either short, medium or long – term securities and they are unlikely to change their maturity preference even when there is an expectation that interest rates will change. The theory asserts investors have very strong maturity preferences and are not willing to invest in securities that do not align with their preference to enjoy yield disparities. Various factors cause investors to confine to their preferred segments including the business environment, legal and regulatory limitations. Due to the investor's preferences, the short and long-term markets fall into two distinct categories and the demand and supply forces in each segment determine the yields of the different segments.

Alexander, Eun, and Janakiramanan (1988) explained theory of market segmentation further. They argue that when stocks from segmented markets are cross-listed in other

jurisdictions, the price of the stock is most likely to rise due to the reduced country specific risk. These will lead to a subsequent decrease in the cost of equity. The cost is likely to reduce due to different tax laws in the different jurisdictions, inflation and exchange rate differential and differences in reporting standards and regulatory requirements. It is therefore anticipated that before cross listing, the market capitalization of a firm will increase and a subsequent increase in the firm's assets after cross listing.

Merton (1987) further explains that to allow for more efficient diversification there is need for market integration by removing barriers to investments across borders, regulatory restrictions and free flow of information. This theory envisages that share prices will increase in the home country, which translates to a decrease in the cost of capital in response to cross listing. There has been far-reaching empirical studies testing this proposition. Each of these studies are consistent with this proposition. The theory is relevant to the present study as it highlights the fact that firms listed in the East Africa Securities Exchanges may opt to list in other markets to enjoy the benefits of market integration.

2.2.2. Liquidity Preference Theory

According to Keynes (1936), investors require a higher return for holding securities with longer maturities. The lengthier the maturity period of a security, the greater the risk and therefore investors will prefer to hold cash, which has the lowest risk unless they are adequately, compensated (Dillard Dudley, 1948). It is easy to sell a liquid security quickly without any substantial loss in value compared to a less liquid security. Since Interest rates are more unpredictable in the short-run compared to the long-run,

investors require greater premiums for holding short and medium term securities compared to the medium and long – term securities.

The same view explains why firms cross list. Investors prefer securities that can be easily sold compared to those that they have to hold for longer periods due to lack of an available market. Amihud and Mendelson (1986, 1988 & 1989) explain that investors require compensation for holding less liquid stocks. This is due to increased transactional costs. Investors presume that lower trading costs leads to greater participation and risk sharing among the investors community. The theory however does not speak to the fact that at any given point in time there are different interest rates prevailing in the market. The prevailing interest rate at any point in time is determined by various factors including those that affect demand and supply of loanable funds, liquidity is certainly not the only factor. According to this theory, firms listed in the East Africa Securities Exchanges may decide to cross list to increase the liquidity of their shares and enjoy positive valuation effects.

2.2.3. Investor Recognition Hypothesis

Merton (1987) proposed this theory. It is based on the asset-pricing model with imperfect information. According to Merton (1897), in the capital markets, investors do not have visibility of all information that informs their investment decisions. They therefore limit their investment selection to a few number of securities, as the informational gathering costs are prohibitive. They also prefer investing in securities that they are familiar with as this will reduce the information gathering costs. Cross listing enables the stock of a company to become more visible to investors and makes

information about the firm more available, this will increase investor base, which in turn increases the value of the firm (Waweru, Pokhariyal & Mwaura, 2012)

Investors avoid investing in securities, which requires high cost to access firm specific information and therefore such stocks trade at a discount. When the investors become more aware of such a stock because of cross listing, they become more welcoming in including them in their portfolios. According to Merton (1987), if investors refrain from certain securities, their portfolios will not be adequately spread and will call for additional returns for taking on non-systematic risk. The required return on the stock will then increase leading to reduced firm value.

The investor recognition hypothesis also explains the fact that due to limited availability of information concerning certain firms, only a few investors may be aware of certain securities. It further explains that if the visibility of a certain security increases among the potential investor's community, then the shareholder base is most likely to increase. The increase in shareholder base will cause the cost of raising capital to reduce which translates to increased firm value. Merton (1987) adds that, changes in investor base will have an impact on financing and investment activities of a firm. In order to increase the visibility of the firms' securities by investors, there should be an improvement in the quality of information disclosure. This theory is pertinent to this study as it seeks to expound the fact that firms in East Africa, in an aim to improve their visibility to investors, cross list.

2.2.4. Bonding Hypothesis

Coffee (1999) and Stulz (1999) put forward the bonding hypothesis. The hypothesis proposes that organizations in jurisdictions with less stringent frameworks for

protecting their investors can increase value by bonding with jurisdictions with better investor protection frameworks through cross listing. The hypothesis goes on to propose that cross listing in jurisdictions with more advanced investor protection frameworks acts as a gesture of a firm's desire to respect the interests of minority stockholders. This attracts a wide range of investors who feel that their interest will be protected causing the share price to rise.

Chisadza (2013) states the cross listing can help encourage good corporate governance and protection of minority shareholders by reducing agency costs related to monitoring shareholders. Doidge (2003) suggest that there is less private benefits to controlling shareholders in companies that cross list in jurisdictions with more stringent investor protection requirements. Minority shareholders in such firms will feel more protected as the controlling shareholders will not make decisions to their detriment. According to Miller (1999), there are positive abnormal return following cross listing announcements to a more regulated jurisdiction when it comes to matters corporate governance. An explanation for the move is the perception of investors of a firm's willingness to improve their corporate governance framework by such a move.

This theory is relevant to this study as it describes why firms in East Africa cross list in markets where there is enhanced investor protection like Rwanda.

2.3. Determinants of Share returns

Numerous factors have been studied and established to affect the returns that investors reap from investing in the shares of firms. These factors include:

2.3.1. Inflation

Inflation refers to the general increase in price levels of good and services. There is an inverse relationship between stock prices and expected and unexpected inflation (Fama & Schwert, 1977). High inflation leads to weak future economic performance, which affects profits that firms enjoy. It also makes assets more risky prompting investor to demand higher returns for holding such assets. These directly affects equity returns. Inflation and stock returns are inversely related but in the long run, stock prices and general price levels tend to move into equilibrium (Fama,1981).

2.3.2. Interest Rates

When interest rates fall, bonds become less attractive to investors. Investors will prefer to invest in stocks as they have a view that stocks will earn them higher returns. As more investors enter the stock markets, the forces of demand causes the prices of stock to go up (Penman, 2007). There is clearly an inverse relationship between Interest rates and share returns (Fama, 1981). Uddin & Alam (2007) establishes that a surge in interest rates results in a fall in the share prices and vice versa.

2.3.3. Financial Performance

According to Penman (2007), financial performance refers to how a business has achieved in terms of overall profits and losses over a given period. Divenney et al (2008) states that the financial performance of a company can be viewed in terms of many other factors including market performance and shareholder returns. Financial performance of a company commiunicates how well a company has been able to generate benefits from the use of its assets. Wide ranges of factors affect the financial performance of a firm, some of which cannot be easily quantified. Some of these factors include the

competence of management, controls that are in place in the organization and the organizational structure.

2.3.4. Liquidity

Liquidity management is very important in any organization since it determines if the company will be able to meet its current obligations and therefore survive. Tamari (1966) indicated that liquidity ratios are a very strong indicator of financial difficulties in a company and therefore directly affects it share returns. The stock prices of a firm is dependent on investor's perception about the future. If investors anticipate a firm to struggle, then the share price of such a company will fall and if they anticipate, the firm to thrive then the share price will rise.

2.3.5. Market to Book Value Ratio

According to the multi factor asset pricing model as postulated by Fama and French (1992, 1993), investors perceive firms with low market to book value ratio to be experiencing financial distress. Investors in such companies will therefore require a premium for investing in the stocks of such companies causing the prices to fall. Petkova and Zhang (2005) supports Fama's and French hypothesis by arguing that, during difficult economic times, it is more risky to hold stocks of companies with low market to book value ratio.

2.3.6. Firm Size

The market value of equity or the market capitalization are the common measures of the size of a firm. Banz (1981) studied the effect of firm size on the return of common stock of shares listed on the New York Securities Exchange. His study highlighted that stocks of small firms performed better compared to the stocks of large firms. Drew and Barry

(2001) also established an inverse relationship between firm size and the return of stocks in 35 emerging equity markets.

According to Kumar and Sehgal (2004), stocks of small firms tend to outperform those of large firms due various reasons. Some of the reasons cited include; Investors often overlook small firms; less research is done with regards to small firms; the betas of small firms are often under-estimated since they are relatively less liquid; small firms lack a strong management team, their operations are not diversified and they do not match up with advancement in technology.

2.3.7. Earnings per Share

Earnings per share refers to the portion of net income attributed to each outstanding share of a company. Many studies have been conducted that exhibit the relationship between earnings per share and share returns. According to Ball et al. (1993), since earnings is the accounting return on equity, any changes will likely have an impact on the movement of security prices. Earnings per share communicates to investor community how the firm has performed, and any changes on the same will have an impact on the market price of the firm's shares (Seetharaman, 1995).

According to Vafeas et al (1998), in emerging markets the level of earnings of listed firms and any changes to these earnings, explain stock prices. Lamont (1998) established that earnings and dividend payout by firms have the ability to predict share returns since they communicate the conditions in the business environment.

2.4. Empirical Studies

Various studies have been conducted both globally and locally on cross listing. Globally, Inder et al (2004) did a research to determine the relationship between cross listing and

firm's growth. They studied 215 companies across 22 different countries that had listed at home and in the US around 1994-2002. From the study, it was evident that cross-listed firms' show greater growth from external financing compared to their non – cross-listed counterparts. From the study, they concluded that cross listing reduces a company's restrictions in terms of access to financing. The study sought to answer the question as to whether cross listing had any impact on a firm's growth. The study employed the regression model, t-statistics and Pearson's correlation to test the variables. The study established that firms that list in other jurisdictions having its primary listing in a more established financial market exhibited greater growth from external financing compared to their non cross-listed counterparts.

Burns and Bill (2006) examined the relationship between cross listing and legal bonding. The objective of the study was to explain whether cross boarder listing provides far-reaching legal bonding or whether US investors are still keen on the reputational connection and the safeguarding of minority shareholders' interests in the jurisdiction of the cross listing firm. From the study is was established that US investors pay close attention to the shareholder protection framework of the cross-listed firm and therefore unlikely to invest in stocks of firms from jurisdictions that do not emphasize on the protection of minority shareholders.

Bacidore and Sofianos (2012) assessed the relationship between cross listing and financial performance. The study employed longitudinal survey of 45 sampled firms in Europe. By use of descriptive statistics, data sources for a period of 10 years was analyzed. The study exhibited a positive relationship between cross listing and financial performance of firms.

Ndubuisi (2013) employed events study research design to test for irregular returns after the pronouncement of cross listing of Canadian mining firms in the Frankfurt stock exchange. Data was collected from 31 Canadian firms that have cross-listed in Frankfurt. The cumulative abnormal returns around the cross listing period was used for the test. The study divulged that in the short run, the Canadian stocks react negatively to Cross listing in Frankfurt, however in the long run, cross listing in Frankfurt showed a declined negative reaction.

A study conducted by Omayo (2016) concluded that liquidity of shares, financial performance, price of shares and transaction costs had a huge impact on the precariousness of shares of cross-listed firms. Focusing his study to firms that have cross-listed in East Africa, a sample of seven cross-listed companies at the NSE were selected and questionnaires used to collect data. The study employed descriptive research design. It was also apparent from the study that cross boarder listing reduces the unsystematic risk of a stock with translates to reduced cost of capital.

Locally, Aluoch (2012) investigated the impact of cross boarder listing on stock returns between 2001 and 2011.7 Kenyan companies cross-listed in the other East African bourses formed the sample of the study. Event study methodology was employed for the purposes of this study. It was concluded that there were positive abnormal returns around the cross listing period. The cumulative average abnormal returns around the cross listing period was also positive but statistically insignificant.

Onyuma et al (2012) examined whether cross listing had any impact on the financial performance of Eastern African firms. Financial information three years before and after Cross listing was collated for the sampled population of cross-listed firms. From

the study, it was established that there is a low positive effect of cross listing on liquidity of the cross-listed shares. The price earnings ratio of the cross-listed firms also improves indicating better investor confidence.

Odhiambo (2013) studied the effects of cross border mergers and acquisitions on firm value. The population for the study included the Kenyan firms that had undertaken cross boarder acquisitions within the East African region. Abnormal performance following cross listing was evaluated by use of an event study methodology. The study concluded that firms engaging in cross border mergers and acquisitions exhibit better financial performance.

A study by Wanjiru (2013) concluded that cross listing leads to an increase in the volume of shares traded and the capitalization of the affected bourses. All cross-listed firms in East Africa formed the population of the study. Event study research design was employed for purposes of the study and by use of the analytical regression model; the volume of daily traded shares 6 months before and after cross listing was tested. The study however did not establish any significant increase in the liquidity of the cross-listed shares.

2.5. Conceptual Framework

Dependent variable   **Independent variables**

Stock Return (Before cross listing) $\dfrac{(P1-P0) + D1}{P0}$
Stock Return (Before cross listing) $\dfrac{(P1-P0) + D1}{P0}$

Event
Cross listing
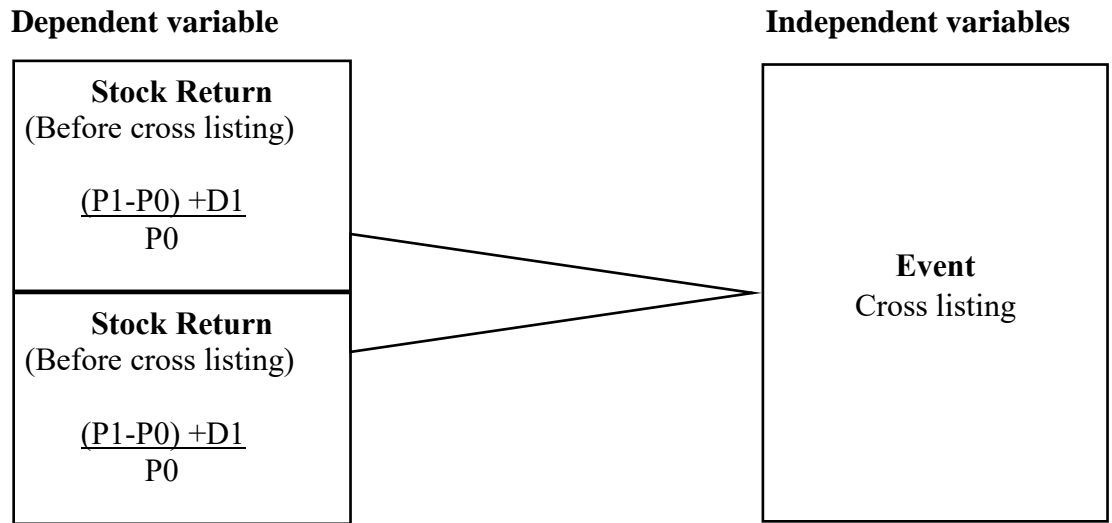
Figure 2.1: Conceptual Model

Source: Researcher

2.6. Summary of Literature Review

From the above review, there is evidence both from local and global studies of statistically significant relationship between cross listing and share returns. Although studies have been done on cross listing, little focus has been made on the impact of cross listing on share returns of companies in the East African bourses. This study therefore seeks to answer the research question: what is the effect of cross listing on share returns of firms cross-listed in the East Africa Securities Exchanges?

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This section covers the research blueprint that was employed for this study. It consists of the research design, population, data collection and data analysis.

3.2 Research Design

According to Zikmund et al (2011), a research design is a blue print of how a researcher intends to collect and analyze data. This study used an event study methodology. Mc William & Siegel (1997) defines an event study as a common methodology in finance to examine how stock prices react to different events. This methodology was employed in this study since we are comparing the share returns of firms that have gone through a certain event. The event in question for this study is cross listing. Monthly share returns of the cross-listed firms 3 years before cross listing was compared with share returns of the same firms 3 years after cross listing.

3.3. Population

A population is a comprehensive set of variables with discernible characteristics (Mugenda & Mugenda, 2003). The population for this study included all companies that have cross-listed in any other East Africa bourse with its primary listing in the Nairobi Securities Exchange as at 31 December 2017. 8 firms (see appendix 1) had cross-listed across the East Africa Securities Exchanges with their primary listing in the Nairobi securities exchange as at 31 December 2017. Further 3 firms that had undergone cross listing between 2010 and 2017 were sampled for the study due to the availability of data.

3.4 Data Collection

Secondary data was employed for this study. Share prices and dividends paid for the period 3 years before and 3 years after the individual firms cross listed was collected from the various NSE handbooks from the NSE secretariat.

3.5 Data Analysis

In order to conclude on the impact of cross listing on share returns, the data collected was analyzed using SPSS software. Paired t – test was employed to determine the impact of cross listing on share returnss and paired correlation for the purposes of establishing the strength of the relationship of the paired samples.

3.5.1 Analytical Model

The paired t- test used to illustrate the effect of cross listing on stock prices is as follows;

$$Paired\ t-test = \frac{x - \mu}{\sqrt[s]{n}}$$

Where;

X = Population mean of share returns

μ = t critical mean`

S = Sample mean

N= Sample size

According to Mc William & Siegel (1997), Event study methodology has been employed widely in finance studies to examine how stock prices are affected by

specific events. This methodology was employed to establish the markets response to cross listing. The study examined share returns 3 years before and 3 years after cross listing.

The variables for the study included stock returns for the cross-listed firms 3 years before and after cross listing;

Share return = $\frac{(P1-P0) +D1}{P0}$

Where;

P0 = Stock price at the beginning of the period

P1 = Stock price at the end of the period

D1 = Dividends in period 1

3.5.2 Test of significance

P – Values was used in this study to establish the statistical significance of the study variables. A P value of less than 0.005 ($P<0.05$) will be considered significant and a P value of more than 0.05 ($P>0.05$) insignificant.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1. Introduction

This chapter covers the analysis of data collected from secondary sources and the interpretation of the findings.

4.2. Descriptive statistics

The study identified firms that had cross-listed in the East Africa Securities Exchanges with their primary listing in the NSE between 2010 and 2017. Three companies out of the eight that have cross-listed met these criteria. Monthly share prices were collected three years before the firms cross-listed and three years after cross listing. Dividends paid by the three companies were also collected for the three years before and after cross listing. Monthly share returns were then computed for each of the three companies for the years of interest in excel (Appendix 2). The study then employed the SPSS software to compute the mean share returns for these companies before cross listing and after cross listing. The paired sample statistics of share returns 3 years before cross listing and 3 years after cross listing is presented in the table below.

Table 4.1: Paired Samples statistics

		Mean	N	Std. Deviation	Std. Error Mean
NMG	Before cross listing	-.0169	36	.11674	.01946
	After cross listing	.0242	36	.08852	.01475
Centum	Before cross listing	.0011	36	.15842	.02640
	After cross listing	.0203	36	.10584	.01764
Uchumi	Before cross listing	.0189	36	.14818	.02470
	After cross listing	-.0347	36	.16824	.02804

Source: Research findings

The table above shows that average monthly returns for Nation Media Group was -0.0169 before cross listing and grew to 0.0242 after cross listing. This means that the mean monthly returns improved after cross listing. Centum Investments had monthly returns of 0.0011 before cross listing and increased to 0.0242 after cross listing. This is an indication that Centum's mean returns improved after cross listing. Uchumi supermarket showed a decline in the monthly mean returns after cross listing from 0.0189 to -0.0347 indicating that cross listing served as a detriment to the share returns of Uchumi supermarket.

4.3. Correlation Analysis

Correlation analysis was undertaken for the paired samples to determine whether there is any relationship between the sampled data before and after cross listing.

Table 4.2: Paired Samples Correlation

		N	Correlation	Sig.
NMG	Before cross listing & After cross listing	36	-.091	.599
Centum	Before cross listing & After cross listing	36	-.024	.889
Uchumi	Before cross listing & After cross listing	36	-.135	.432

Source: Research findings

Table 4.2 above on paired correlations shows that the relationship between NMG, Centum and Uchumi's mean monthly share returns before and after cross listing was negative.

4.4. Paired Samples Test

This study employed the paired samples t-test to determine whether cross listing had an impact on share returns of cross-listed firms in the East Africa Securities Exchanges. The results of the test is summarized in the table below;

Table 4.3: Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Dev	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
NMG Before cross listing - After cross listing	-.04111	.15276	.02546	-.09280	.01058	-1.615	35	.115
Centum Before cross listing - After cross listing	-.01917	.19263	.03210	-.08434	.04601	-.597	35	.554
Uchumi Before cross listing - After cross listing	.05361	.23874	.03979	-.02717	.13439	1.347	35	.187

Source: Research findings

The study indicates that the t statistics value for Nation Media Group before cross listing and after cross listing was -1.615 with a p value of 0.115 being statistically insignificant at the 95% confidence level. The t statistics value of Centum Investments was -0.057 before and after cross listing with a p value of 0.554 which implies statistical insignificance at the 95% confidence level. Uchumi Supermarket has a t statistics of 1.347 and a p value of 1.347 with indicates statistical insignificance at the 95% confidence level.

4.5. Discussion of Research Findings

The study examined the impact of cross boarder listing on share returns of companies cross-listed in the East Africa Securities Bourses and have their primary listing on the Nairobi securities Exchange. Out the 8 firms, 3 companies that had cross listed between 2010 and 2017 were selected and monthly share returns computed.

From the descriptive statistics, the paired samples statistics shows the mean monthly return for the 3 firms three years before cross listing and three years after cross listing. The objective was to examine the impact of cross listing on the average monthly returns and therefore to establish whether the share returns improve or deteriorate. The Correlation analysis describes the relationship between share returns before and after cross listing. The paired samples test shows the significance of the relationship between the mean share returns before cross listing and after cross listing.

The mean monthly returns for Nation media group before cross listing was -0.0169 before cross listing and grew to 0.0242 after cross listing. This means that on average the share returns of NMG increased after the company cross-listed its shares. The Mean monthly returns for Centum Investments increased to 0.0203 after cross listing

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from 0.0011 before cross listing. This means that on average the investors of Centum earned better returns after the company cross-listed. For Uchumi supermarket, the mean monthly returns three years before cross listing was 0.0189 and dropped to -0.0347 after cross listing. This indicates that the shareholders of Uchumi supermarket earned better returns on their investments before the company cross-listed compared to after the firm opted to cross list. The correlation analysis shows that the mean monthly return of Nation Media group, Centum investments and Uchumi supermarket before cross listing and after cross listing are negatively correlated.

The paired samples test showed that Nation media group had a t-statistics value of -1.615 and a p value of 0.115 indicating statistical insignificance at the 95% confidence level. This mean that cross listing has a positive impact on the share returns of Nation Media Group because the mean monthly returns improved, however, the change in the share returns is not significant. The t statistics value of Centum Investments was -0.597 and p value of 0.554 and therefore statistically insignificant at the 95% confidence level. This mean that, despite the fact that the mean monthly return of Centum improved after cross listing, the improvement was not significant. The t-statistics value of Uchumi supermarket was 1.347 and a p value of 0.187 implying statistical insignificance at the 95% confidence level. The implies that although the mean share return of Uchumi supermarket declined after cross listing, the decline in the returns was not significant.

The study outcome of insignificance is consistent with the findings of Mutua (2012), which concluded that there was no statistically significant difference between share returns of cross-listed firms at the Nairobi securities exchange before cross listing and

after cross listing. It is also in tandem with the findings of Aluoch (2012) which established that there was insignificant positive cumulative average abnormal returns around the cross-border listing date. Kamotho (2013) also established that there was no significant increase in liquidity of cross-listed shares. Adelegan (2006) established that cross listing resulted in positive abnormal returns around the date of regional cross listing and a consequent normal cross post listing returns.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter summarizes the findings of this study and makes conclusions based on the findings. It also provides recommendations for further research.

5.2. Summary of Findings

The aim of this study was to establish the impact of cross listing on share returns of cross –listed firms in the East Africa Securities Exchanges. The study period was three years before cross listing and three years after cross listing. The study used share prices and dividends per share obtained from the NSE handbooks of the various period to compute monthly share returns of the cross listed firms three years before and after cross listing. The paired samples t-test method was used to determine whether cross listing had an impact on share returns of the cross-listed firms.

The study revealed that the mean monthly share return of Nation Media group was higher after cross listing compared to before cross listing. The t statistics value of NMG was -1.615 with a p value of 0.115 at the 95% confidence level. The paired samples correlation between the shares returns before cross listing and after cross listing was negative.

The mean monthly return of centum Investments before cross listing was 0.0011 before cross listing and 0.0203 after cross listing indicating an improvement on the share returns after cross listing. The t statistics value of the mean returns before and after cross listing was -0.597 with a p value of 0.554 being insignificant at the 95%

confidence level. The paired samples correlation between the shares returns before cross listing and after cross listing was negative.

The mean monthly share return of Uchumi supermarket declined from 0.0189 before cross listing to -0.0347 indicating that shareholders of Uchumi supermarket were better off before cross listing. The t statistics value of the mean returns was 1.347 with a p value of 0.187 implying statistical insignificance at the 95% confidence level. The paired samples correlation between the shares returns before cross listing and after cross listing was negative.

5.3. Conclusion

This study concludes that that cross listing has an insignificant impact on the share returns of Nation Media Group (NMG), Uchumi Supermarket and Centum investments at the 95% confidence level before cross listing and after cross listing. From the study, it is also apparent the mean monthly share returns of Nation Media group was higher after cross listing compare to before cross listing. This leads to the conclusion that cross listing has a positive impact on the share returns of Nation Media group. This means that investors in Nation Media Group benefit from the decision by the Company to cross list. The t statistics value of Nation Media Group was -1.615 with a p value of 0.115 and therefore statistically insignificant at the 95% confidence level. This leading to the conclusion that although cross listing improved the mean share return, the benefit from cross listing is not significant.

The mean monthly return of Centum investments increased after cross listing implying that cross listing had a positive impact on the share returns of Centum. The t statistics value of Centum Investments was -0.507 with a P value of 0.554 implying statistically

insignificance at the 95% confidence level. The study therefore concludes that the investors of Centum Investment do not get a significant benefit from the firms decision to cross list.

Uchumi supermarket's mean monthly return declined after cross listing compared to before cross listing. This means that cross listing had a negative impact on the returns that shareholders of Uchumi supermarkets were better off before the company decided to cross list compared to before the firm cross-listed. The t statistic value of the mean return was 1.347 with a p value of 0.187 implying statistical insignificance at the 95% confidence level. The study therefore concludes that the decision on Uchumi supermarket to cross list has no significant impact on the share return.

5.4. Recommendations

The study concluded that cross listing had no significant impact on share returns of NMG, Centum and Uchumi supermarket. The study therefore recommends that Companies that choose to cross list should carefully evaluate the market in which they want to cross list to so as to determine what other benefits they are likely to achieve since the improvement in share returns is not a guarantee.

The study also recommends that firms in the East African region should embrace cross listing. Despite the fact that it appears that there is no significant impact on share returns due to cross listing from this study, other scholars have concluded that there are so many other benefits that a firm can benefit from cross listing including; improving liquidity and investors recognition, which in the long run will profit the firm.

The study also recommends that the regulators and policy makers in the East African region should work toward encouraging listed firms to cross list in other bourses other

than they their home countries. This is because in spite the fact that in the short run the share return of the cross-listed firms are not significantly impacted by cross listing, the local markets benefits a great deal in terms of increase in the market capitalization.

The key players and regulators in the East African Bourse should also consider harmonizing the regulatory environment across the bourses to encourage more firms to consider cross listing and enjoy the benefits that come from the same. It is evident from the study that due to the different development in the East Africa bourse different markets have different regulatory requirements.

5.5. Limitations of the Study

The study focused on share returns of cross-listed firms three years before cross listing and three years after cross listing to determine the impact of cross listing on share returns of cross-listed firms in the East Africa Securities Exchanges. The study findings are therefore applicable to the sampled firms and the study period.

This study also employed monthly share returns and not the daily share returns. This might not relay effectively the volatility of share returns on a daily basis. In this regard, the findings of this study should be discussed with monthly share returns in mind.

The study covered only 3 companies out of the 8 that had cross listed in the cross-listed in the East Africa bourse. The 5 firms that were excluded from the study cross listed a long time ago and therefore information on monthly share prices three years before and after cross listing was not available. The exclusion of the 5 cross listed firms could have altered the ultimate results of the study.

5.6.Suggestions for Further Research

The study recommends that more research should be done on the effect of cross listing on daily returns of firms cross-listed in the East Africa Securities Exchanges. Daily share returns are volatile and this is because such studies may provide more insights on how the share returns behave.

The studies should also seek to extend the study period from three years before and after cross listing to establish whether the results will be different in a longer time horizon. Further research should also be done for an expanded sample size across Africa to get a better view of the benefits or otherwise of cross listing. A small sample size may not depict a clear picture of the benefits that firms may achieve from cross listing.

The study further recommends research to be on the effect of cross listing on share return of firms that have cross-listed in specific bourses in the East African region. This is in the aim to establish whether there are benefits in cross listing in certain bourses compared to others. Further research should also be done to establish why few firms in the East African countries have chosen to cross list despite the various apparent benefits that they may achieve should they opt to cross list.

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APPENDICES

Appendix 1: Cross Listed Firms in East Africa as at December 2017

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

Source: NSE, DSE, USE, RSE

Appendix 2: Share Returns before and after cross listing

Uchumi Supermarket

Month	Before Cross listing				After Cross listing		
	2010	2011	2012	2013	2014	2015	2016
July	-	(0.12)	(0.03)	-	(0.02)	(0.19)	-
August	-	(0.19)	(0.01)	-	0.03	0.17	0.16
September	-	0.06	0.17	-	(0.16)	0.18	-
October	-	0.05	0.10	-	(0.18)	(0.08)	0.01
November	-	(0.18)	(0.01)	-	0.07	(0.15)	(0.07)
December	-	0.05	(0.02)	-	0.10	0.39	0.25
January	-	(0.02)	-	-	0.26	(0.31)	(0.28)
February	-	(0.05)	0.01	-	(0.13)	(0.17)	(0.09)
March	-	0.71	0.14	-	(0.02)	(0.19)	(0.10)

	Before Cross listing				After Cross listing		
Month	2010	2011	2012	2013	2014	2015	2016
April	-	0.16	(0.10)	-	(0.06)	(0.22)	0.23
May	(0.14)	0.23	0.04	-	0.06	(0.03)	(0.16)
June	(0.09)	(0.07)	(0.01)	-	(0.17)	(0.26)	(0.12)

Source: Researcher

Centum Investment

	Before cross listing				After cross listing		
Month	2007	2008	2009	2010	2011	2012	2013
April	0.03	0.16	(0.02)	-	0.07	0.20	0.02
May	(0.01)	(0.07)	0.31	-	(0.02)	(0.06)	0.14
June	0.12	(0.03)	0.23	-	0.01	(0.13)	(0.05)
July	0.05	(0.08)	0.02	-	(0.17)	(0.04)	0.06
August	0.11	(0.05)	(0.21)	-	(0.09)	(0.02)	0.05

Month	Before cross listing			2010	After cross listing		
	2007	2008	2009		2011	2012	2013
September	(0.15)	(0.16)	(0.11)	-	(0.09)	0.00	0.11
October	(0.06)	(0.29)	(0.09)	-	(0.01)	0.08	0.14
November	0.05	0.00	0.11	-	(0.15)	(0.05)	0.02
December	0.12	0.35	(0.03)	-	0.03	(0.02)	0.05
January	(0.17)	(0.22)	0.19	-	0.05	0.10	0.08
February	0.10	(0.33)	(0.06)	-	0.04	0.08	0.06
March	(0.07)	0.05	0.25	-	(0.12)	0.39	(0.03)

Source: Researcher

Nation Media Group

Month	Before cross listing			2010	After cross listing		
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
January	(0.04)	(0.10)	(0.03)	-	0.02	0.01	0.17
February	(0.07)	0.09	(0.18)	-	0.01	0.05	0.03
March	(0.15)	0.00	0.11	-	0.01	0.12	0.32
April	(0.01)	0.07	0.03	-	0.06	0.01	(0.21)
May	0.05	(0.02)	(0.04)	-	(0.02)	(0.01)	0.14
June	(0.01)	0.05	0.13	-	(0.08)	0.07	(0.06)
July	0.04	(0.39)	(0.10)	-	(0.11)	(0.01)	0.03
August	(0.00)	(0.25)	(0.04)	-	(0.06)	0.18	0.01
September	0.09	(0.13)	(0.06)	-	-	0.04	(0.01)
October	0.01	(0.19)	0.03	-	-	0.06	0.02

Month	Before cross listing			2010	After cross listing		
	2007	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
November	0.07	0.23	0.02	-	(0.01)	-	0.00
December	0.08	0.08	0.02	-	0.08	0.03	(0.02)

Source: Researcher