# THE EFFECT OF LISTING ON THE PROFITABILITY OF INSURANCE COMPANIES IN KENYA

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**DECLARATION** 

I declare to the best of my knowledge that this proposal is my original work and has not been

presented anywhere for a degree in any university. To the best of my knowledge, I belief that this

paper contains no material that is previously published or written by anyone else except where

referenced.

Signature......Date....

Esther Karinga

REG NO: D61/75643/2012

**DECLARATION BY SUPERVISOR** 

This is to declare that this research paper has been presented for examination with my approval

as the appointed University supervisor.

Signature..... Date .....

DR. Winnie Nyamute.

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#### ACKNOWLEDGMENT

I take this opportunity to express my deepest gratitude to God for giving me this opportunity and his guidance throughout this project paper. Without Him I would not have made it this far.

I wish to acknowledge people who have greatly influenced and facilitated the process of preparing this research project report, without whom it would have been difficult to accomplish it on my own. Special thanks to my family members, who have made it possible for me to finalize this project paper through their prayers, financial support and time allowed.

I take this earliest opportunity to appreciate the support accorded to me by my supervisors, Dr. Winnie Nyamute for her guidance through the intricacies of putting up a viable research project report. To all who encouraged me and supported me directly or indirectly, I wish to thank you and wish you well.

# **DEDICATION**

I dedicate this research proposal to my family and my colleagues for their support throughout the period I was doing this work.

#### **ABSTRACT**

The listing of companies is considered an important step in corporate development for companies in every sector. Listing is thought to bring various benefits to the company that range from stronger brand recognition, greater market share, and better financial performance. This study was conceptualized to test whether listing actually brought benefits to insurance companies listed in Kenya. The main objective of the study was to assess whether listing had an effect on the ROE of insurance companies.

The research design used was event study. An event window of ten years, with five years on either side of listing was used to measure the effect of listing on the ROE of insurance companies. The study included allthe listed insurance companies. The industry ROE was used as a moderating variable to smooth out the effects of market forces during listing, since the event windows for the companies were all not concurrent.

The study found that listing had mixed results for different companies, with some having improved ROE, and others posting lower ROE. The study concluded that listing has a positive effect on the ROE of the insurance sector, which had a Cumulative Average Abnormal Return of 0.25 ROE, but did not confer any universal advantages on all insurance companies. The study therefore recommends that an improved ROE, while achievable, should not be the major driver for listing for insurance companies.

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# ABBREVIATIONS AND ACRONYMS

AKI Association of Kenyan Insurers

CMA Capital Markets Authority

GDP Gross Domestic Product

IPO Initial Public Offer

NSE Nairobi Securities Exchange

IRA Insurance Regulatory Authority

R & D Research and Development.

RBA Retirement Benefits Authority

ROA Return on Assets

ROI Return on Investments

ROE Return on Equity

#### **CHAPTER ONE: INTRODUCTION**

#### **1.1.** Background of the study

Insurance companies provide a very important service that supports the overall economic development of any country. The companies underwrite risks, making it possible for companies to venture into various businesses without undue fear of risk factors beyond their control. Insurance customers pay premiums to the insurance company as their contribution to a common pool where those who experience risks can get compensation(Greene & Segal, 2004). The agreement between policy holders and insurance companies that spells out the terms of coverage is called a policy document(Maina & Kondongo, 2013).

Insurance companies use mathematical models to arrive at the amount of premiums each policyholder should pay to get coverage for specific risks. The key factors insurance companies consider when analyzing risks is the probability of a risk occurring and the impact of the projected risk. As a rule, insurance companies do not provide insurance for risks that are certain to occur, but deliberately seek out risks that have a very low probability of occurrence. Insurable risks must also be risks that have a significant impact when they occur. Usually, risks are quantified in financial terms, since insurance companies usually compensate policyholders through financial mechanisms(Mwangi & Murigu , 2015). When a risk event occurs, a policyholder usually places a claim with the insurance company, who then investigates the claim and it is compensated if valid. Claims settlement is one of the key performance indices used to analyze the stability of an insurance company(Cytonn Investments, 2016).

#### 1.1.1. Listing in the Stock Exchange

The NSE's listing criteria includes several components that a company must fulfill when it applies for listing at the NSE. The criterion includes the following components. First, the company must be registered as a limited company(NSE, 2002). Regulations also require the company to have a minimum of issued and paid up capital of Ksh 50 million and it must have net assets of at least Ksh100 million. The NSE also requires companies seeking to issue an IPO to be ready to issue freely transferable shares that have no restrictions(NSE, 2002). The criteria also include financial reporting requirements indicating the nature and periods that financial reports need to cover to assure the eligibility of the company. Insurance companies are also required to get a certificate of comfort from the IRA, which essentially indicates that the regulator has no objection to the listing of the company(NSE, 2002). Other conditions in the NSE requirements include a profitability criterion, a suitability of directors criteria, and a description of the final ownership structure the company will need to attain for the IPO to be considered successful(NSE, 2002).

Listing is a common way for firms to raise additional capital to boost operations. A company that chooses to be listed at a stock and security exchange usually provides its shares to be traded publicly at the bourse. The NSE manages trade in the stock market, which is regulated by the Capital Markets Authority(CMA, 2016). The NSE develops and implements trading rules and also manages the actual trade in shares in the securities market. On the other hand, the CMA provides oversight, and makes rules and regulations regarding the listing process. The CMA maintains financial and economic criteria that all companies which wish to be listed must meet. Usually companies join the stock market by issuing an IPO.

Companies that fail to maintain the level of performance prescribed by the CMA, or those that contravene trading regulations as set by the NSE can be suspended from trading and may be delisted(CMA, 2016). Shares of companies that go into receivership are usually suspended immediately from trading in the NSE. Participation in proscribed trade practices such as insider trading can also lead to the suspension of a company from the NSE. The NSE also has an automated mechanism that suspends trading in the shares of any company listed in the NSE when its value rises or falls by more than 10% within any single trading session(NSE, 2016).

Insurance companies are currently under pressure to raise their capital as a result of new capital thresholds introduced by the finance Act of 2015(Cytonn Investments, 2016). The Act requires general insurance companies to raise their working capital from Ksh 300 million to Ksh 600 Million, and life Assurance companies to raise their working capital from 150 Million to 400 Million(Cytonn Investments, 2016). This capital requirement change has already led to some mergers and acquisitions within the insurance sector. It is expected that some insurance companies will seek to raise more capital by listing at the NSE. Capital raised in mergers and acquisitions comes with market share since the acquired company or the merging companies already have a slice of the market as opposed to listing.

#### 1.1.2. Insurance Sector Profit Mechanisms

Insurance companies have two main revenue structures that affect their profitability. These include revenue from premiums and revenue from investments. Revenue from premiums relates directly to the cost of financing the claims made by policyholders in a given financial period(Botta, 2014). When making business projections, insurance companies price their policies based on the probability that policyholders will make claims within a given financial period. The

pricing process usually accommodates the margins the insurance company intends to make in a given period. The main risk the companies contend with is that they cannot be certain about the volume of claims they will handle in a given period. Therefore, profits from premium payments can be affected in case there are more claims made than the one projected by the firm.

Insurance companies usually spend a large amount of money on investments to manage their revenue risks. Insurance companies invest in both long term and short-term assets. Long terms assets preferred by insurance companies include investment in real estate and long-term instruments such as long-term treasury bills(Sambasivam & Ayele, 2013). Insurance companies also invest in stocks and other investment options in the financial markets. They also put some of their investments in short terms assets in the money markets to help manage their day to day cash flow.

Apart from the existing profit mechanisms, insurance companies also deal with several other issues that affect their profitability. These include fraudulent claims, legal expenses on disputed claims, losses on financial investments, financial exposure due to large or numerous claims, and mismanagement. The IRA (2015) expressed its concern regarding the growing volume of fraudulent claims in the Kenyan insurance sector in the 2014-2015 period. The main classes of insurance that have been affected seriously by fraud are car insurance and medical insurance. These two classes attracted a large volume of fraudulent claims estimated at Ksh 300 million in the period(Cytonn Investments, 2016).

Large risks are normally reinsured (insuring with a reinsurance company) or co-insured (distribute the risk among other insurance companies). Poorly managed insurance firms have also collapsed in the past mainly due to mismanagement. The collapse of any insurance company

usually has adverse effects on the economy and is one of the reasons why there is increasing regulation in the sector. Insurance companies also face challenges associated with losses from investments. Investment made by insurance companies are not free from market forces, and they can return losses just as any other investment.

# 1.1.3 Listing and Profitability of insurance companies.

Listing presents, a set of new challenges to companies that opt for this route. The main problems observed when a company chooses to list include loss of privacy and the cost of maintaining the listing(Hubbard & Thornton, 2006). When a company chooses to list in the NSE, it immediately becomes subject to regulations governing the conduct of listed companies. The company will be required to publicly report its financial position, an element that will inadvertently reveal its business strategy such as expenditure on R&D, markets, and financial position, elements that unlisted competitors can use to gain an advantage(NSE, 2002).

The second challenge is that to remain listed, a company has to meet certain costs, such as increased costs of statutory audits, costs of disseminating financial reports and organizing shareholder events, and the costs of related licensing and certifications(Hubbard & Thornton, 2006). This means that it can be quite costly for small companies to remain listed, and in any case, these additional costs can affect the margins of the business.

Getting listed is one step, and is quite apart from the requirement of staying listed. Posting poor financial performance in the NSE can lead to the delisting of a company depending on the causative factors of the poor performance(Ayako, Kungu, & Githui, 2015). A company can also be delisted if a majority stakeholder seeks statutory delisting, if the company fails to maintain the

regulatory standards and therefore lose their operating licenses. In this case, the CMA and the NSE will be forced to delist the company pending the resolution of its regulatory responsibilities.

#### 1.1.4 Insurance industry in Kenya.

The insurance industry in Kenya has contributed greatly to the economic development and the national GDP. According to Financial Stability Report (2013) by the IRA, insurance penetration in Kenya was at 3.4 % ranking it amongst the top five insurance markets in Africa and the best in East Africa. There are 47 insurance companies in Kenya carrying out both General and life insurance business. The current scenario in the Kenyan insurance sector is that only 6 out of 47 insurance companies are listed in the NSE. The insurance industry is regulated by the Insurance Regulatory Authority (IRA) under an Act of Parliament Cap 487. IRA is a state corporation mandated to regulate, supervise and promote development of insurance industry in Kenya. The key players regulated by IRA are insurance companies, Re-insurance companies, insurance brokers and agents among others.

The Financial stability report (2013) cited sustained growth in insurance as a resultof improved governance and stability, favorable demographics, improving business environments, rising middle class and urbanization and growing ties to emerging economies. As the Kenya middle class grows and the disposable income increases so does the penetration rate. In addition, innovation continues to take center stage in developing and growing the insurance industry in Kenya. Underwriters are developing innovative products that serve the needs of their clients better in a bid to ensure sustainability.

#### 1.2. Research Problem

Some insurance companies in Kenya opted to float their shares in the NSE. These listed insurance companies compete against privately funded insurance companies in the country. Listing has the effect of availing more capital to a company, capital that can be used to pursue and attain business objectives. The key to successful listing is obtaining capital and deploying it in ways that boost the business performance of an organization. However, a company may increase its capital base without a corresponding increase in its market share. In this case a successful IPO may not result in an increase in the performance of the company. All companies usually evaluate their financial performance during and after every financial year. One of the measures they use is Return on Investment (ROI). This measure compares the profits the company made with the capital of the company.

Insurance companies are capital intensive. They require huge amounts of capital to operate successfully, and as such, it would be expected that most, if not all of these companies would be listed at the NSE. This is not the case. The low representation of the insurance companies at the NSE leads to the question of whether there is any advantage at all that accrues to an insurance sector firm that lists at the NSE. There is need for a study that examines whether listing at the NSE affects the performance of insurance companies.

Many studies examining the financial performance of insurance companies have been conducted, with most of them focusing on the factors affecting financial performance. Gugong, Aruguand Isa, (2014) studied the effect of ownership structure, but focused on managerial and institutional shareholding in Nigeria. While this study looked at listed companies, it did not factor in the effect listing as part of the capital structure had on profitability. A study that analyzed the

performance of listed insurance firms in Ethiopia concluded that key factors influencing profitability were leverage, capital, and liquidity. The study did not analyze the effects of listing on profitability, but focused on profit drivers (Sambasivam&Ayele, 2013).

Two studies that assessed the factors affecting the profitability of insurance firms in Kenya did not include insurance firms and banks for undisclosed reasons (Ayako, Kungu, &Githui, 2015; Omondi&Muturi, 2013). Mwangi and Murigu,(2015) conducted a study aimed at assessing the factors that influenced the profitability of general insurance companies in Kenya. This means that a contextual gap existed relating to studies involving Kenyan listed insurance companies. The variables in this study did not include listing as a factor affecting profitability. From the review of related studies, it was clear that there existed a conceptual gap, where the effect of listing on the profitability of insurance companies had not been assessed. The key research gaps that needed to be addressed included studying the impacts of listing (as a variable) on profitability, and one that looked specifically at the insurance sector. This study therefore sought to address this gap by assessing the impact of listing on profitability ratios (ROE) of insurance companies in Kenya.

#### 1.3. Research Objectives

The main objective of this study was to determine the effect of listing at the NSE on the profitability of insurance companies in Kenya. Specifically, the study compared the performance of the listed insurance companies prior to their listing and their performance after listing.

#### 1.4. Value of the Study

This study was to be of most value to four stakeholder groups. First, the study was to be of interest to insurance companies and other related companies mulling listing. The findings would make it possible for them to evaluate the possible benefits they stand to gain from listing. The firms would have an empirical analysis of what to expect in regards to their profitability and their market share.

Secondly, the study would be valuable to regulators. The study would help answer key performance questions for listed companies especially in the insurance sector. It would make it easier for regulator to advice insurance companies mulling listing on what to expect in regards to their profitability in the post listing period.

The study will also to be valuable to scholars since it explored performance factors for listed companies in the NSE. A key gap would have been addressed once a clear picture of how these variables interact emerges. The study would also be valuable to investors and potential issuers as they make decisions on whether or not to buy shares when insurance companies issue IPOs.

#### **CHAPTER TWO: LITERATURE REVIEW**

#### 2.1. Introduction

This section covers a review of literature associated with the variables of the study. The first section contains a review of the capital structure irrelevance theory, which will undergird this study. This paves way for a detailed discussion of the study variables, which are listing and profitability of firms. The section then concludes with a look at several empirical studies related to the issues being researched.

#### 2.2. Theoretical Review

## 2.2.1 Capital Structure Irrelevance Theory

The two key variables in this study are listing status of insurance companies, and profitability (as a measure of financial performance). A review of relevant capital structure theories revealed that a number of capital structure theories would fit the general needs of the study. However, the Capital structure irrelevancy theory seems the most appropriate for the needs of this study. This theory has postulates that have a wide area of overlap with the study variables and also set the tone for determination of researchable hypothesis for this study. The study therefore adopted this theory as the guiding theory.

The capital irrelevance theory was proposed by Modigliani and Miller and is sometimes referred by their name, or simply as the MM approach (Graham & Smart, 2012). The theory was devised in the fifties by Modigliani and Miller and it has two main postulations (Graham & Smart, 2012). First, the capital irrelevance theory postulates that capital structure of a firm bears no relation to the value of the firm. This postulation was arrived at after studies conducted by the

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proponents showed that there was statistically significant relationship between the capital structure of a company and the value of the firm. This helped settle debates into whether the capital structure of companies played a significant role in the company's performance. The second postulate of this theory was that "financial leverage is proportional to the cost of equity" (Graham & Smart, 2012, p. 97). This postulate related the amount of leverage that listed and unlisted firms had in relation to the cost of equity, and settled on the fact there was a proportional relationship between these two variables (Hubbard & Thornton, 2006). The results were found to be consistent across a large number of circumstances and were only materially affected by tax regimes. This led to the restatement of the postulations either in a tax-based system or on a tax less system (Botta, 2014).

The first postulate of the capital irrelevance theory has interesting ramifications on capital structure. This theory states that the capital structure of a company is irrelevant to its value(McConnel & Servaes, 1990). This specific postulate actually provides this study with a strong hypothesis on whether listing has an effect on the profitability of the company. One of the key measures of the value of a company is its profitability. In this sense, the theory is stating that capital structure of a company will not have an effect on its profitability. The second postulate of the capital irrelevance theory indicates that, "financial leverage is proportional to the cost of equity" (Tobin, 1956). This second postulate relates the financial leverage a company has to the cost of equity. It supports the position that a debt is a more significant factor in a company's capital structure compared to equity, and has a stronger effect in its financial performance (Kadi, 2016). As such, companies with more debt will experience disproportionate effects on their financial performance compared to companies with a similar value of equity.

## 2.2.2 Capital Structure Theory

Capital structure refers to the model a company uses to finance its assets(Botta, 2014). The most common capital structure approaches are equity and debt. Equity refers to the financial resources provided by the owners of the company. Listed companies usually sell equity in the stock market, where anyone in the public can buy the shares and become a part owner of the company. Most companies usually prefer keeping ownership private because it allows the primary shareholders to maintain control of the company. On the other hand, some companies opt to trade their shares publicly. This enables them to finance expansion and to take advantage of new market opportunities. It however comes with loss of control since the shareholders' interests now become more important than the company's interests.

Debt financing is also a viable capital structure for companies seeking financing to further their business interests (Botta, 2014). The most significant challenge with debt financing is the cost, usually associated with the interest charged on the principle (Nelson, Earne, & Ledgerwood, 2013). If the cost of debt is too high, it can stifle growth and reduce the business momentum. On the other hand, debt financing makes it possible for business owners to maintain their equity, hence control over their business in the long term (Mwangi & Murigu, 2015).

Commercial firms must be profitable if they intend to achieve long term sustainability. A lot of attention is usually focused on the financial performance of companies. Listed companies are required to publish their financial results publicly by regulators(NSE, 2002). Their activities are usually carefully monitored as a means of protecting shareholders from poor decisions a company's board and management may make. Financial performance therefore becomes a key indicator of the overall performance of a profit driven company.

#### 2.3. Determinants of Profitability in the Insurance Sector

Sambasivam and Ayele (2013) suggested that the performance of a company can be analyzed from three perspectives – internal factors, industry factors and Macroeconomic factors. All these factors have a bearing on the current and future profitability of the company. Internal factors refer to activities, programs and strategies organized by a firm to drive its market acquisition and development efforts(Botta, 2014). Industry factors mainly include actions by competitors and regulators, things which are beyond the firms control, but exert varying levels on influence on its operations(Cornforth, 2001). Macroeconomic factors refer to the overall economic conditions within which a firm operates and may include aspects like economic growth, recessions, depressions, and the balance of trade for a given country(The Economist, 2011). Below are the determinants of profitability in the insurance industry.

#### **2.3.1** Listing

The performance of many listed companies has improved with time as indicated by improving financial results(Ayako, Kungu, & Githui, 2015). Listing has also been observed to lower the cost of borrowing for companies, probably driven by the realization by banks that the company has an alternative source of finance (Maina & Kondongo, 2013). The lowered costs of finance from the open market can make it easier to pursue growth strategies.

Companies that operate in risky markets can also issue IPOs as a means of raising capital to diversify their interests(Greene & Segal, 2004). Operating in one sector may be risky over the long term, and hence an IPO makes it possible for the company to find new sectors to operate in, either through subsidiaries, or by buying stake in other sectors of interest. In this case, an IPO gives the company capital that it can use to stabilize its operations. An IPO can also be used as a

means of rebalancing books after large investments or during a period of fast growth(Pagano, Panetta, & Zingales, 1996). Listing in either of these cases can help a business to manage its cash flow and short-term business stabilization requirements in the wake of acquiring fresh markets.

Another advantage a company may accrue from listing comes from the fact that it will be monitored closely by regulators and shareholders(HLC, 2016). While this may make managerial action more restricted, it nonetheless helps prevent decision-making that is detrimental to the future of the company. Chances of engagement in bad business practices reduce significantly in public traded companies because of the multiplicity of interested parties.

Another motive for listing is to create advertising value for the company(Kadi, 2016). The process of listing comes with a large amount of publicity, and generates a lot of attention from potential investors and customers. In fact, issuing an IPO guarantees a company of wide press coverage and can actually serve to boost its markets position(Kadi, 2016). This reason is never the primary reason for issuing an IPO, but it is a very strong motivator and an added benefit that makes it attractive for companies to list.

#### 2.3.2 Underwriting risk

Underwriting risk refers to the risk that the premiums collected might not be adequate to cover the cost of coverage. Insurance prices are calculated based on estimates of expected costs of claims and thecosts to issue and administer the policy. The assumptions and estimates used to develop prices may prove to be ultimately inaccurate. This may be due to poor assumptions, changing legal environments, increased longevity, higher than expected weather catastrophes (Ernst&Young,2010). Huge variations in net premiums written indicate a lack of stability in underwriting operation of an insurance company

Companies that carryout risky activities are likely to have more volatile cash flows than entities whose management is more averse to risk -taking (Fama and Jensen, 1983). As a result, insurers that underwrite risky business will need to ensure that good standards of management are applied to mitigate their exposure to underwriting losses and maximize returns on invested assets.

### 2.3.3 Reinsurance Dependence

To stabilize earnings, increase underwriting capacity and provide protection against catastrophic losses insurance companies usually take out reinsurance cover which has cost. When determining an appropriate ceding level, insurance companies have to try to strike a balance between decreasing insolvency risk and reducing potential profitability. Increasing reinsurance dependencereduces the potential profitability although on the other hand it increases operational stability. Purchasing reinsurance reduces insurers 'insolvency risk by stabilizing loss experience, increasing capacity, limiting liability on specific risks, and/or protecting against catastrophes. Reinsurance purchase increases significantly the insurer's costs but reduces significantly the volatility of the loss ratio. With purchasing reinsurance, insurers accept to pay higher costs of insurance production to reduce their underwriting risk. An insurer that cedes more business to reinsurer and keeps lower retention more or less operates like a reinsurance broker who only transfers risk without underwriting risk and is likely to report less profit for a relatively high percentage of the premium received is ceded to reinsurers (Lee, 2012).

#### 2.3.4 Solvency Ratio

Solvency ratio refers to the excess value of admissible assets over the value of insurance liabilities and other liabilities of policyholders' and shareholders' funds (Charumathi 2013). There is a significant positive relationship between solvency and profitability ratio. Solvency ratio is an important indicator of the financial strength of an insurance firm and signifies the company's ability to survive in the long run. Insurance companies with higher solvency margin are considered to be more financially sound than the ones with low solvency margins(Shiu,2014)

# 2.3.5 Liquidity

Liquidity is the company's ability to settle its debt obligations when they fall due. This is measured by the current ratio (current assets to current liabilities). Itindicates the ability to convert an asset to cash quickly and reflects the ability of the firm to manage working capital when kept at normal levels. A firm can use liquid assets to finance its activities and investments whenever the external financing is not available or it is too expensive. A company with a high liquidity ratio will be able to pay such payments unlike the ones with long cashconversion periods, which might be required to sell its long-term assets or borrow loans to meet their obligations. Moreover, according to the theory of agency costs, high liquidity of assets could increase agency costs for owners because managers might take advantage of the benefits of liquid assets (Adams and Buckle, 2000).

#### 2.4. Empirical Review

Several studies have revealed statistically significant positive relationship between firm ownership and profitability for firms that are institutionally owned, a result probably influenced

by higher levels of accountability that institutions can provide for companies they own(McConnel & Servaes, 1990; Gugong, Arugu, & Isa, 2014). In this context institutions ownership refers to situation where a company is fully or majority owned by another company or institution, so that its board report to the mother company. In such situations, the subsidiary is usually subjected to greater scrutiny and control by the holding company.

A study conducted in Italy by Pagano Panetta and Zingales (1996) showed that investment and profitability of companies tended to decrease after an IPO. This could be attributed to new costs associated with maintaining a listing, and the time required for the new capital to bring in dividends. It is important to investigate whether this relationship hold true in the Kenyan context.

In Nigeria, a study was conducted by investigating whether diversity in the corporate board had an impact on the performance of listed companies(Garba & Abubakar, 2014). The study concluded that the inclusion of female directors had a relationship to the positive performance of listed insurance companies while an increase in the number of foreign directors had a negative relationship to the performance of the insurance companies.

In Ethiopia,Sambasivam and Ayele, 2013 studied the performance of insurance companies by comparing the effects of firm specific factors in the profitability of the company. This study included both listed and non-listed insurance firms in the country.

In the Kenyan context several empirical studies have been conducted to investigate factors affecting the performance of various organizations, but they have either focused on non-listed firms, or on non-financial listed firms(Ayako, Kungu, & Githui, 2015). As such, there lacks studies that focus exclusively on the financial performance of financial sector players listed in

the NSE. A study by Mwangi, Makau, and Kosimbei(2014) examined the relationship between capital structure and performance of non-financial companies listed in the NSE. This study omitted the banks and insurance companies on the grounds that they use different financial models as compared to non-financial companies.

A study by Ayako, Kungu, Githui (2015) investigated the factors that affect the financial performance of non-financial listed companies. The key variables in this study chosen as indicator of performance were Return on Assets (ROA) and Return on Equity (ROE). The key findings of the study were that corporate governance has a positive correlation to performance, while leverage was negatively correlated. Firm size and liquidity did not have a statistically significant result on the performance of listed companies.

A census study by Maina and Kandogo (2013) on effect of debt-equity ratio on performance of NSE listed firms concluded that a negative relationship exists between capital structure and performance of listed firms. His study reviewed a decade of performance by companies listed in the NSE beginning in 2002, and verified the Capital Irrelevance theory in the Kenyan context.

Mwangi & Murigu(2015) studied the factors that affect the profitability of insurance companies in Kenya. The study focussed on general insurance companies only, and did not discriminate between listed and non-listed companies.

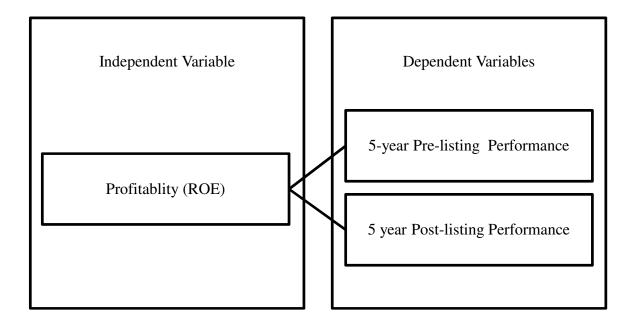
#### 2.5. Summary

The key elements that have been gleaned from a review of literature include the following. First, it is clear that listing decisions are very important for companies and they have a direct impact on the companies standing in the market. Listing makes it possible for companies to acquire non-

debt capital, but it also reduced the amount of managerial control the company has over its business. Listing also makes companies visible and hence avail a marketing benefit. There was insufficient literature on the empirical motivations for listing, but a high number of suppositions exist as to why a company may choose to list. Literature reviews also showed that the performance of companies can be measured using financial and non-financial metrics. The most significant financial metric is profitability, which in turn has several related measures and ratios such as ROI, ROA, and ROE. The review also led to the conclusion that a study is required to analyze the relationship between the listing status of a listed insurance company and its profitability ratios. The studies that exist either have excluded financial service players, or do not use the same variable identified in this study.

The key research gaps identified in the review include the absence of studies that address how listing affects the performance of insurance companies. Existing studies either have focused on non-financial firms, or have not taken into account the pre and post-listing performance of the companies reviewed. Another gap observed is the absence of studies in Kenya involving listed insurance companies.

# 2.5.1 Conceptual Framework



**Figure 1: Conceptual Framework** 

The literature review above was important in helping to determine the key variables of study. The dependent variables in this study were prelisting and post listing performance. The independent variables were profitability, measured by Return on Equity (ROE). Prelisting referred to the period immediately before a company went public and in this case covered a five-year period. The post listing performance related to the period immediately following listing and covered a period of five years following the listing event. The independent variable ROE is a ratio that measures the profits a company makes in relation to its equity.

3.1. Introduction

This section presents the methodology of the study, it describes the decision process for the

choice of the research design, the population and sampling decisions, and the data collection

process. This includes the sources of data and how they will be accessed. The section also

contains the data analysis procedures and describes the analytical frame used in the event study

for this project.

3.2. Research Design

The choice of research design for a specific project must be based on the needs of the project,

with an emphasis on suitability of the design to deliver the intended results of the project

(Creswell, 2009). Research design involves making choices regarding how to handle a study and

usually involves the acceptance and elimination of some research design components in order to

arrive at a coherent and effective research approach. This study adopted quantitative design.

The quantitative research design sits on one end of a spectrum, with qualitative design on the

extreme end, and mixed methods design somewhere between these two(Creswell, Research

Design, 2003).Quantitative research design stresses the countable elements of a data set, and

presents findings numerically(Hakim, 2012). This research design is useful in research projects

intent on testing hypothesis, running correlation analysis and using regression models since it

provides a robust numerical framework for analysis and reporting.

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In the context of this study, the choice of this research method was based on the following considerations. First, the data that was considered in the study was already available in quantitative format. The study relied on financial reports since it was concentrating on performance measured using financial ratios. This therefore meant that the best design for the study was a quantitative design. Secondly, the variables that the study investigated were all quantifiable in quantitative terms. These variables included financial performance and listing status. It was therefore more effective for the purposes of the study to use a quantitative design. Finally, the method provided the best way of addressing the objective of the study, since it required qualitative review for it to be addressed effectively.

The study employed the event study research design. The event in question was the listing of insurance companies. The study was intent on comparing how companies perform before and after listing.

# 3.3. Population and sample

The study was a census of all the listed insurance companies in Kenya. There are six listed insurance companies in Kenya, whose shares are traded freely at the NSE. The study was interested in finding out how listing affected the performance of an insurance company. As such, with only six listed insurance firms in the NSE, it was possible to analyze the performance of all six companies. A sample was not necessary in this case.

#### 3.4. Data Collection

The study mainly relied on secondary data published by the insurance companies and data held by regulators and industry players such as the AKI, IRA, NSE and the CMA. Therefore, the data collection process mainly involved visiting relevant websites and downloading published financial reports of various insurance companies from these sites. Financial reporting requirements enforced by the law made itfairly easy to access financial data from the insurance companies in Kenya. Since the objective of the study required ten years of data for listed companies, it was necessary to collect financial information from newspapers and from NSE repositories. There was a challenge getting data from companies that have been listed for many years before the development of online repositories. In these cases, all reasonable efforts were made to access the financial records from the companies themselves but were not fruitful. This affected Jubilee Holdings and Pan Africa Life.

The specific data needed for this study include full year financial statements of all the listed companies for the ten-year period covering five years before listing and five years after listing. In cases where a company was listed less than five years before, the information that was used in the analysis was what was available since the listing of the company. The data that was included in the analysis included the full year returns and the amount of equity reported in the financial reports as held by the companies.

#### 3.5. Data Analysis

As a study utilizing the event study methodology, there was need to identify and use an appropriate model for analysis. The study used a ten-year event window, with five years before the event (listing), and five years after listing. The study therefore treated the listing from a long horizon perspective. The following table shows the timeline for the event.

**Table 1: Event Timeline** 

Estimation period	Event	Post-event period
	Window	
$T_0$	$\Gamma_1$ 0 $\Gamma_2$	

Table 1 shows the event timeline that was used for the study.  $T_0$  was the baseline year, proceeding the five-year pre-listing years for the insurance company.  $T_1$  marked the event window, which was the formal commencement of the listing process.  $T_2$  represented the commencement of the five-year period immediately following the listing of the company, while  $T_3$  represented the end of this period.

The model that was used for analysis was the market model. The market model required the development of a regression model to help in the determination of expected returns based on the estimation period. Thereafter, the returns produced by the regression model were compared against actual returns for the companies under consideration. This model provided a simple but robust method of analyzing the effect an event such as listing on the returns of a given stock. The main drawback of the market model is that it assumed the market was efficient, and therefore its

results may have been affected by confounding factors. That said, it was still a generally well accepted model for use in event studies.

The market model used to predict normal returns was expressed as follows.

$$AR_{it}=R_{it}-\alpha_i-\beta_iR_{mt}$$

 $R_{it}$  was the firms return at date t,  $\alpha_i$  was the y-intercept,  $\beta_i$  was the slope and  $R_{mt}$ 

was the weighted returns of the NSE in the period under review. The process that was used in the analysis was as follows. First the data was applied to the market model to generate the regression coefficients for normal returns. Once generated, the new equation was tested against the future returns of all the companies studied to generate values of what would be considered a normal return. These values were then evaluated against the actual values posted by the firms under consideration to see whether listing had a measurable impact, as evidenced by any abnormal returns. Depending on the outcomes, further analysis and review of prevailing market conditions was carried out to help explain any anomalies observed.

As with all regression analysis problems, it was important to conduct a test of significance to ascertain the statistical value of the results obtained from this procedure. There was a wide range of tests that could have been used to ascertain the significance of statistical results after regression. The main challenge that regression problems bring include the effect of outliers in a data set. In this case, scatter diagrams were used to assess the presence of any of outliers, which in turn informedthechoice of significance test to be used. This involved a test of the null hypothesis, where the value of the null hypothesis was zero.

#### **CHAPTER FOUR: FINDINGS AND DISCUSSION**

#### 4.1. Introduction

This chapter presents the findings derived from the analysis of data collected from various insurance companies in Kenya based on the methodology described in chapter 3. The section includes individual analysis for each of the six insurance companies whose data was available for the years preceding and the years succeeding their IPO.

The Nairobi Securities Exchange has six insurance companies listed at the bourse. Out of theseone is a reinsurance company (Kenya Re), while the rest are holding companies for insurers, some with both life and general insurance subsidiaries. The Insurance regulatory commission required all insurance companies in Kenya to split their operations into general insurance and life insurance. Some companies therefore split their operation into two separate companies. The analysis conducted assumed that they were independent companies for the periods under study. A case in point is CIC insurance, which later became CIC life and CIC general. The data from CIC insurance was therefore handled as though the companies had been separate companies from the onset.

The inclusion of Kenya Re was justified on the fact that it is a player in the insurance segment and is also affected by the general factors that affect the operations of insurance companies in Kenya. Kenya Re was therefore treated as an insurance company and its results were analyzed along the other insurance companies.

It is also important to indicate that the results included in the analysis are for the specific insurance companies, and not their holding companies. After the splitting of operations into life

and general insurance, some companies went ahead and formed holding companies to bring together all their trading interests, both within and without the insurance section. In many cases, the holding companies are the ones listed at the NSE, and not the specific insurance companies. Therefore, the analysis did not include results from investment operations, or other interests of the holding companies (such as pension fund administration, and asset management) that were not managed under the specific insurance companies. It only used the results from insurance subsidiaries within these companies. This was believed to be the best way of finding out whether listing actually affected the results of insurance companies.

It should be noted that the study was designed to capture a ten-year period for every listed companies. The first five years were to cover the period before listing while the last five years was to cover the period after listing. The reality however was that some of the companies were listed many decades ago, and it was impossible to find their financial reports for this ten-year period. The two companies affected by this fact were Jubilee and Pan African Life. On the other hand, some companies had not completed five years after listing as at the time of data collection, hence data for these companies only covered their available post listing years.

Finally, it was found useful to include industry Return on Equity aggregate for comparison purposes, and as a baseline for the performance of listed insurance companies vis-a vis the performance of the entire insurance sector. This was important because this study essentially sought to find out whether listing preferred an advantage to insurance companies as compare to unlisted ones.

## 4.2. Descriptive Analysis

## **4.2.1.** Year of Listing of Insurance Companies

Table 2 shows that most of the insurance companies currently listed at the NSE went public in and after 2011. The two holding companies with interests in insurance that were listed in 2011 include Liberty Life Holdings (parent Company of Liberty Life) and Britam Holdings which has two insurance companies in its stable (Britam General and Britam Life). CIC insurance group went public in 2012. The company also has two insurance companies under it (CIC life and CIC general). Kenya Re went public in 2014. The other two insurance companies listed in the NSE include Jubilee Insurance and Pan Africa Life, which were listed in 1973, and 1963 respectively.

**Table 2: Year of Listing** 

			Ye	ear of Listing a	nd Company	ROE			
Year	Kenya	CIC	CIC	Britam	Britam	Liberty Life	Jubi	Pan	Africa
	Re	Life	General	General	Life	(CFC Life)	lee	Life	
2007	-	-	-	0	0	0	-		-
2008	-	0.31	0.31	0	0	0	-		-
2009	-	0.17	0.17	-0.8	-0.8	0	-		-
2010	0.15	0.23	0.23	0.14	0.14	0.16	-		-
2011	0.50	0.18	0.18	0.27	0.27	0.36	-		-
2012	0.48	0.18	0.39	0.22	0.22	-0.04	-		-
2013	0.51	0.21	0.35	0.27	0.27	0.29	-		-
2014	0.52	0.16	0.22	0.04	0.22	0.32	-		-
2015	0.55	0.12	0.2	-0.11	-0.01	0.22	-		-

#### 4.2.2. Event Table

The main objective of this study was to check whether listing had an effect on the performance of insurance companies. In this regard, an event table was developed using ROE data for all listed insurance companies. The process followed was as follows. First, all available data for listed insurance companies was collected with the goal of developing a ten-year time line, with the first five representing the pre-event performance, and the last five representing the post – event performance. This data was then arranged to show the ten-year event window with an adjusted timeline based on this event. The results are presented in the table 3.

**Table 3: Event Table Showing ROE for the Companies** 

Event Table Showing ROE										
		Prelist	ing RO	E (Yea	rs)	Pos	t Listin	g ROE	(Years)	
Company	-5	-4	-3	-2	Listing	1	2	3	4	5
Kenya Re	0.17	0.10	0.19	0.17	0.17	0.11	-	-	-	-
CIC Life	0.31	0.17	0.23	0.18	0.18	0.21	0.16	0.12	-	-
CIC General	0.31	0.17	0.23	0.18	0.39	0.35	0.22	0.2	-	-
Britam General	0	0	-0.8	0.14	0.27	0.22	0.27	0.04	-0.11	-
Britam Life	0	0	-0.8	0.14	0.27	0.22	0.27	0.22	-0.01	-
Liberty Life(Formerly CFC Life)	0	0	0	0.16	0.36	-0.04	0.29	0.32	0.22	-
Jubilee	-	-	-	-	-	-	-	-	-	-
Pan Africa Life	-	-	-	-	-	-	-	-	-	-

## 4.2.3. Individual Company Average Pre-Listing and Post Listing ROE

An analysis was carried out to find out the average pre-listing and post-listing performance of insurance companies. The available data for the prelisting and post listing periods for each company was averaged. Table 4 shows the results that were obtained for each company

**Table 4: Average Prelisting and Post Listing ROE** 

Company	Average Prelisting	Average Post-listing	Change in ROE
	ROE	ROE	
Kenya Re	0.16	0.11	-0.05
CIC Life	0.21	0.16	-0.05
CIC General	0.26	0.26	0.00
Britam General	-0.13	0.11	0.24
Britam Life	-0.13	0.18	0.31
Liberty Life(Formerly CFC Life)	0.26	0.20	-0.06

This analysis shows that the average ROE for individual listed companies were varied, with some having positive change in ROE and others having negative or no change in their ROE. Kenya Re posted a negative change in ROE of -0.05 when its prelisting and post listing performances were compared. It should be noted that the company had only completed one financial year after its listing, hence the data is insufficient to conclude on the long term trends the company's ROE will take. CFC life posted a change of-0.05 in its ROE following listing. The post listing data covered three financial years, hence it is a more reliable indication of post

listing performance for the company. CIC General had the same average performance in its prelisting and post-listing ROE, with a three-year post-listing horizon. This is also a reliable indication of the performance of the company following listing. Britam General posted a positive change in its post listing average ROE of 0.24. This comparison was based on a three-year prelisting horizon (period where data could be obtained), and a four-year post listing horizon. In this case, it could be concluded that Britam General was posting a strong ROE after listing. Similarly, Britam Life posted the largest positive change in its ROE of 0.31, based in the same horizon as Britam General. Finally, Liberty Life posted a negative change in its ROE of -0.06 when prelisting ROE was averaged and compared with its post listing ROE over a two-year prelisting horizon, and a four-yearpost listing horizon. In this case, the data available makes it hard to make confident conclusions on the effect of listing on the company's performance.

#### 4.3. Correlation Analysis

In order to factor in the market effects on the listed companies, correlation analysis was carried out to compare whether the companies were following the market trends, or the effects observed were due to listing. The event data, comprising prelisting and post listing performance was correlated to the industry ROE. The results are presented in table 5.

**Table 5: Correlation Analysis** 

Event Window Pearson Correlations Between Industry ROE and Company ROE

	Kenya Re	CIC Life	CIC	Britam	Britam Life	Liberty Life
			General	General		(Formerly CFC Life)
Prelisting ROI	E 0.37	-0.25	0.63	0.99	0.99	Insufficient Data
						Data
Post Listin	ng Insufficient	0.99	0.90	0.98	0.90	-0.41
ROE	data					
Period ROE	0.65	0.27	0.69	0.67	0.58	-0.33

The Pearson's correlations in these cases showed how well each insurance company followed market trends. Companies whose ROE strongly followed Market ROE had correlations tending towards 1, while those with values tending towards -1 were going against market trends. Companies with 0 correlation were those whose results did not have a relationship with market trends. While this analysis was important to assess how the companies behaved in the context of changing industry conditions, the analysis did not tell whether the disparities between the companies were due to ROE that were stronger than the markets, or ROEs that were weaker than the markets.

## 4.4. Regression Analysis

Data from the listed companies was compiled and used in the computation of event study statistics. The key elements of the analysis included the computation of the alpha ( $\alpha$ ) and beta ( $\beta$ ) coefficients for each listed company. This information made it possible to calculate the

Estimated Returns (ER) as well as the Abnormal Returns (AR) related to each listed company. The data was finally aggregated into Abnormal Average Returns for all the listed insurance companies. Since the companies were listed in different years, the market performance data was used to stabilize the effects of market conditions during each listing event. The specific analysis for each company is presented in the following section.

## 4.4.1. Kenya RE Event Study Analysis

Kenya Re was listed in 2014. This means that there was only one-year post listing data available for analysis. The alpha coefficient obtained for Kenya RE was 0.34, while the beta coefficient was 0.58. These values were used to compute the estimated returns for the company. The average Abnormal Return for Kenya Re was -0.01 indicating that over the event window, the returns of the company actually dropped. In this case, we can conclude that listing did not result in improved ROE for Kenya RE as shown in table 6

**Table 6: Kenya Re Event Study** 

	Event Stud	ly for Listing	Event of Ke	nya Re in 201	4 with Indus	stry ROE as R	eference Index	X	
T	Date	Alpha	Beta	STEYX	Actual Return	Estimated Return	Abnormal Return	t- values	p- values
-5	2010	0.038	0.58	0.031829	0.17	0.15	0.01	0.45	0.37
-4	2011				0.10	0.15	-0.05	-1.66	0.83
-3	2012				0.19	0.18	0.01	0.45	0.37
-2	2013				0.17	0.17	0.00	-0.11	0.53
-1	2014				0.18	0.14	0.04	1.20	0.22
0	2014				0.18	0.11	0.07	2.28	0.13
1	2015				0.11	0.11	0.00	-0.04	0.51
2	-				-	-	-	-	
3	-				-	-	-	-	
4	-				-	-	-	-	
5	-				-	-	-	-	
						AAR	-0.01		

## 4.4.2. CIC Life Event Study

CIC life was listed in 2012, and this was the year used for subsequent computations as the event year. The alpha coefficient for the company over the event window was 0.12, while the beta coefficient was 0.39. The standard error was calculated as 0.06. The average abnormal return for the event window computed for CIC life was 0.02. This shows that CIC had positive benefits arising from the listing event as shown in Table 7.

**Table 7: CFC Life Event Study** 

	Event Study fo	r Listing E	Event of CIO	C Life in 201	12 with Indu	ıstry ROE as	Reference Inc	lex	
Т	Date	Alpha	Beta	STEYX	Actual Return	Estimated Return	Abnormal Return	t- values	P- values
-5	2008				0.31	0.24	0.07	1.13	0.23
-4	2009				0.17	0.19	-0.02	-0.32	0.60
-3	2010				0.23	0.21	0.02	0.30	0.41
-2	2011				0.18	0.19	-0.01	-0.21	0.57
-1	2012				0.18	0.27	-0.09	-1.60	0.82
0	2012	0.12	0.39	0.06	0.18	0.27	-0.09	-1.60	0.82
1	2013				0.21	0.20	0.01	0.10	0.47
2	2014				0.16	0.18	-0.02	-0.42	0.63
3	2015				0.12	0.17	-0.05	-0.83	0.72
4	-				-	-	-	-	
5	-				-	-	-	-	
							AAR	0.02	

## 4.4.3. CIC General Event Study

CIC General was listed in 2012. This year was used as the event year for the event analysis. The alpha coefficient for CIC general was 0.01, and the Beta coefficient was 1.44. The standard error was computed as 0.06. The abnormal return for the company was -0.11. The data shows that the company consistently posted a negative abnormal return during the entire event window with a less negative abnormal return in the post event period. This shows that the company derived

some benefit from listing but other factors must have been depressing its performance throughout the event window as shows in table 8.

**Table 8: CIC General Event Study** 

	Event S	tudy for	Listing	Event of C	CIC General in	2012 with Industry	ROE as Reference	Index	
Т	Date	Alpha	Beta	STEYX	Actual	Estimated	Abnormal	t-	p-
					Return	Return	Return	values	value
-5	2008				0.31	0.43	-0.12	-1.93	0.85
-4	2009				0.17	0.23	-0.06	-0.98	0.75
-3	2010				0.23	0.32	-0.09	-1.39	0.80
-2	2011				0.18	0.25	-0.07	-1.05	0.76
-1	2012				0.39	0.55	-0.16	-2.47	0.88
0	2012	0.01	1.44	0.06	0.39	0.55	-0.16	-2.47	0.88
1	2013				0.35	0.49	-0.14	-2.20	0.86
2	2014				0.22	0.30	-0.08	-1.32	0.79
3	2015				0.2	0.28	-0.08	-1.18	0.78
4	-				-	-	-	-	
5	-				-	-	-	-	
							AAR	-0.11	

# 4.4.4. Britam General Event Study

Britam General was listed in 2011, with the year being used as the event year for this analysis. The alpha coefficient for the company was computed as -1.12, and the Beta coefficient was computed as 5.99, the largest in the study. The standard error was 0.31. The average abnormal return posted by company within the event window was 0.94, and was the most positive value in

the study. Britam seemed to have benefited a lot from listing and has posted strong results as a result of listing as shown in Table 9.

**Table 9: Britam General Event Study** 

E	vent Study f	or Listing	Event of Bri	tam General	in 2011 with	h Industry RO	E as Referenc	e Index	
Т	Date	Alpha	Beta	STEYX	Actual Return	Estimated Return	Abnormal Return	t-values	p- values
-5	2007	-1.12	5.99	0.31	-	-	-	-	
-4	2008				-	-	-	-	
-3	2009				-0.8	-5.92	5.12	16.59	0.02
-2	2010				0.14	-0.29	0.43	1.38	0.20
-1	2011				0.27	0.49	-0.22	-0.72	0.70
0	2011				0.27	0.49	-0.22	-0.72	0.70
1	2012				0.22	0.19	0.03	0.09	0.47
2	2013				0.27	0.49	-0.22	-0.72	0.70
3	2014				0.04	-0.89	0.93	3.00	0.10
4	2015				-0.11	-1.79	1.68	5.43	0.06
5	-				-	-	-	-	
							AAR	0.94	

## 4.4.5. Britam Life Event Study

Britam Life was listed in 2011. This was the year used as the event year for the purposes of this study. The alpha coefficient for the company was -0.94, the beta coefficient 5.22, and the standard error was 0.63. The average abnormal return for the period was 0.63. This indicates a strong performance connected to listing. It can be concluded that listing had a positive effect on the ROE of Britam Life as Shown in Table 10

**Table 10: Britam Life Event Study** 

Ev	ent Study f	or Listing	Event of E	Britam Life in	2011 with 1	Industry ROE	as Referenc	e Index	
Т	Date	Alpha	Beta	STEYX	Actual	Estimated	Abnormal	t-values	P-
					Return	Return	Return		values
-5	-				-	-	-	-	
-4	-				-	-	-	-	
-3	2009				-0.8	-5.12	4.32	12.55	0.03
-2	2010				0.14	-0.21	0.35	1.02	0.25
-1	2011				0.27	0.47	-0.20	-0.58	0.67
0	2011	-0.94	5.22	0.34	0.27	0.47	-0.20	-0.58	0.67
1	2012				0.22	0.21	0.01	0.03	0.49
2	2013				0.27	0.47	-0.20	-0.58	0.67
3	2014				0.22	0.21	0.01	0.03	0.49
4	2015				-0.01	-0.99	0.98	2.86	0.11
5	-				-	-	-	-	
						AAR	0.63		

## **4.4.6.** Liberty Life (Formerly CFC)

Liberty Life was listed in 2011, with this year being used as the event year. The alpha coefficient calculated for the company was 0.44, with the beta coefficient being -1.13. The standard error for the company was -0.15. The average abnormal return for the company during the event window

was 0.07. This indicates a small positive benefit for the company arising from listing. This data is summarized in table 11.

**Table 11: Liberty Life Event Study** 

Event Study for Listing Event of Liberty Life (Formerly CFC) in 2011 with Industry ROE as Reference Index T Date Alpha **STEYX** Estimated Beta Actual Abnormal t-values P-values Return Return Return -5 --4 -3 -2 2010 0.16 0.26 -0.10-0.640.68 -1 2011 0.36 0.03 0.33 2.14 0.14 0.438 0 2011 1.131 0.153277 0.36 0.03 0.33 2.14 0.14 907 15 1 2012 -0.040.48 -0.52 -3.42 0.91 2 2013 0.29 0.11 0.18 0.23 1.17 3 2014 0.32 0.08 0.24 1.59 0.18 4 0.19 0.03 0.44 2015 0.22 0.20 5 0.07 **AAR** 

# 4.5 Industry Cumulative Average Abnormal Returns (CAAR)

The Insurance Industries CAAR was computed to be 0.25. This was done by aggregating the Average Abnormal Returns (AAR) for all the insurance companies listed at the NSE, and finding the average of this value. This indicates that companies in the insurance industry in general can expect their ROE to increase following listing events. This finding is very important considering

that prevailing circumstances in the insurance industry where it is expected to raise their working capital by the IRA, situation that has already led to mergers and acquisitions in the sector.

#### 4.6. Interpretation and Discussions

The descriptive analysis showed that the insurance sector in Kenya was slow to list, and only started listing in large numbers in 2011, with the exception of Jubilee Holdings and Pan African Life. This means that the sector has been slow to list, indicating that the sector has either not had much confidence or seen sufficient opportunities to list at the exchange.

When taken as a group, the companies had a stronger post listing performance averaging at a ROE of 0.17 as compared to the combined average prelisting ROE of 0.10. This analysis by averages indicated that listing produced better results for the sector. However, it can be observed that two companies, Britam Life and Britam General, were responsible for all the positive ROE in the group, with the others posting negative or unchanged ROE in the group, and in this case, the two companies are having a strong influence on the results. In addition, this approach has not taken into account the overall industry performance during the event window for each of the companies concerned. This analysis pointed to the need for further statistical analysis to identify key trends in the data.

The correlation analysis showed that the levels of correlation varied from company to company across the pre-event and post-event periods, and also across the entire event window. With the exception of Liberty Life, all other companies had ROEs that were strongly positively correlated to the market trends across the listing period. This indicates that the performance of insurance companies tends to follow a clustered approach, and market trends have a strong effect on the performance of individual companies.

The results from the regression model developed for use in this study indicated that the effect of listing varied considerably for each of the insurance companies included in the study. The values of the abnormal returns for each of the companies ranged from -0.11 to 0.94. While these values generally indicate a positive effect of the listing event, the values are such that they do not support the making of strategic decisions simply based in this effect. It is clear that other factors are driving the results a company posts after listing, and hence listing on its own does one guarantee a positive ROE for insurance companies. This position is well supported by the Cumulative Average Abnormal Returns (CAAR), which was calculated as 0.25. This value indicates that listing generally leads to a positive ROE for insurance companies, though specific company factors also play an important role in whether a company actually posts positive results after listing or not.

Insurance companies are likely to seek listing options in the coming years because of recent requirements by the IRA whereby insurance companies should raise their capital. This study clearly indicates that the companies should consider a wider range of benefits to listing, and should not primarily list with ROE as a key driver for their intention to list. There is need for further study to predict the potential ROE for companies that list in order to provide advice to insurance companies on what they need to consider in order to list in the NSE.

#### **CHAPTER 5: SUMMARY AND CONCLUSIONS**

#### 5.1 Introduction

This chapter presents the conclusion of the study whose objective was to find out whether listing has an impact on the performance of insurance companies. The section contains a summary of findings and the conclusions that can be drawn from the study. It also contains suggestions for further research indicating areas where researchers can build on to enhance the findings made in this initial assessment.

## 5.2 Summary of the Study

This study was conceptualized to assess whether listing had an effect on the performance of insurance companies. The study relied on event study methodology, with listing as the event. A five-year pre-event period and a five-year post-event period were used in the study, giving it a ten-year span. Apart from event study, Pearson's Correlations were also obtained for each of the companies reviewed to check how the companies performed vis-à-vis the performance of the market. This was done to provide a reference frame since the companies were listed at different times, hence the event did not refer to a specific market period, but took place at different times for each company. The key findings from the analysis were as follows

The study found the listed companies ROE in the pre-event periods and the post event periods. A comparison of the average performance of the companies in these two periods showed that not all companies had better performance in the post-listing period as compared to the pre event periods. Some companies had a much stronger post listing performance compared to their prelisting performance, while some actually posted a reduction in their ROE in the post-

listingperiod. It is important to note that a reduced ROE was not always the same as reduced profits because of the possibility of an increase in the asset base of a company reducing the ROE, while profitability may still have been increasing.

## 5.3 Conclusion from the Study

The study indicates that listing does not have a specific positive effect on the performance of insurance companies, only a marginally positive one. The evidence for this is the small positive value of 0.25 for the CAAR of all the listed companies included in the study. The study therefore concludes that listing has a positive effect on the ROE, but this is neither universal nor significant enough to make it a primary motive for listing at the bourse. This finding is congruent to the findings Gugong, Arugu and Isa (2014) that found a statistically significant positive relationship between company ownership and profitability. The study also showed congruence with studies by Pagano, Panetta and Zingales (2006) which showed that the profitability of companies tended to reduce after an IPO. The study is at odds with a study conducted by Maina and Kandogo(2013), which concluded that capital structure and performance of listed firms are negatively correlated. This study indicates a positive relationship between capital structure and performance of listed firms.

#### 5.4 Limitations of the Study

The key limitations associated with this study were as follows. First, accessing the full set of data for listed companies was not possible. Two of the companies were listedmany decades ago, making it impossible to get the data related to the industry and those companies at that specific time. Others were listed less than five years limiting the number of post-event years that could be included in the study.

Secondly, the study that was intended was a census of insurance companies in Kenya. Two of them could not be included because of unavailability of data. The two companies that were not included in the study are Jubilee Insurance and Pan African Life Insurance

Thirdly, the data collection process relied mostly on secondary documents such as AKI industry reports. Any omissions or errors in those reports would lead to systematic errors in the calculations.

The fourth limitation of the study is related to the regression model adopted in the study. The study used the market model to calculate regression coefficients. The market model is developed from the assumption of perfect market conditions. In reality, confounding factors are always present. Their effects are not factored in this study

Finally, regression models in event studies are best developed with longer spans of data exceeding the event window. The difficulties of obtaining data from periods when there were no online data repositories greatly limited how far back the regression models could have been applied.

#### 5.5 Recommendations from the Study

The key recommendation from this study is that companies seeking to list should not do so with an improved ROE as their primary motivation. While the probability of an increased ROE exists, it is marginal generally, and seems to be driven more by other company and market fundamentals apart from listing.

The study also recommends further studies that can examine other variables that predict the performance of an insurance company following a listing event. This study proves a slight

positive relationship between listing and ROE, but does not provide conclusive information on what predicts increased ROE for an insurance company after listing.

#### **5.5.1** Areas for Further Research

Some of the areas for further research that may be pursued following the findings of this study are as follows. First, this study only focused on the effect of listing on the ROE of listed companies. There is need to carry out the same analysis, this time relying on other variables such as Asset Base considering that listing has the effect of altering a company's assets and liabilities.

Secondly, this study was done at a time when not all the listed insurance companies had been in operation for five years or more to provide a complete event window in the post listing phase. A similar study, set in a few years' time when all the listed companies will have completed five years would help clarify the findings of this study.

Thirdly, a study is proposed that would uselonger term data in the calculation of the regression coefficients. This would best be done once all listed insurance companies have been in operation five years or more in the post-listing phase.

The fourth area of research proposed from this project is a similar study that uses another regression model, apart from the market model. The market model is useful and reasonably accurate, but is still affected by its assumption of perfect market conditions

Finally, a study that compares the performance of listed companies in regulated sectors such as banking would also provide further insight into whether listing has an effect on their ROE.

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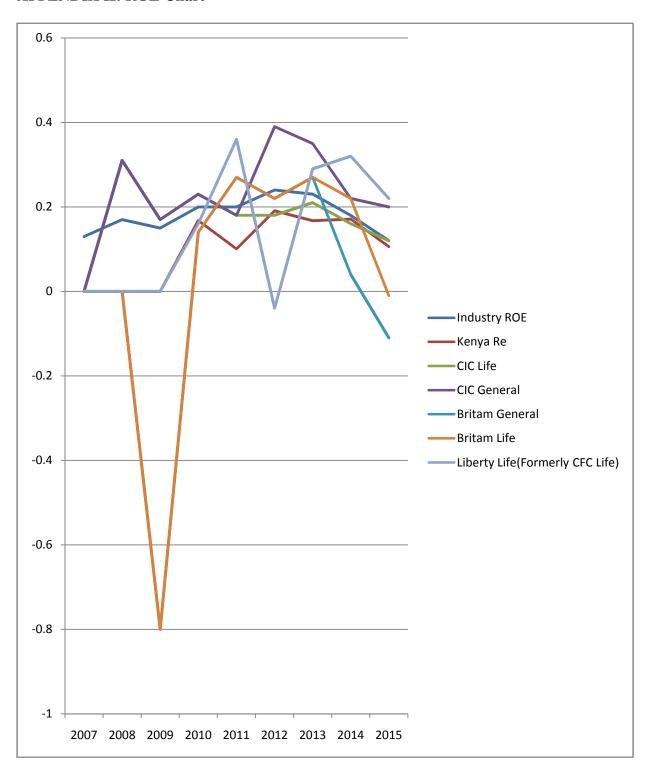
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# APPENDIX I: List of listed insurance companies at the NSE

- 1. CIC Insurance
- 2. Britam Insurance
- 3. Jubilee Insurance
- 4. Kenya re-insurance
- 5. Pan Africa Insurance
- 6. Liberty Insurance

## **APPENDIX II: ROE Chart**



**APPENDIX III: Year-on-Year Correlation Analysis** 

	Industry	Kenya	CIC Life	CIC	Britam	Britam	Liberty
		Re		General	General	Life	Life(Formerly
							CFC Life)
2007	0.13	-	-	-	0	0	0
2008	0.17	-	0.31	0.31	0	0	0
2009	0.15	-	0.17	0.17	-0.8	-0.8	0
2010	0.19	0.17	0.23	0.23	0.14	0.14	0.16
2011	0.2	0.10	0.18	0.18	0.27	0.27	0.36
2012	0.24	0.19	0.18	0.39	0.22	0.22	-0.04
2013	0.23	0.17	0.21	0.35	0.27	0.27	0.29
2014	0.18	0.17	0.16	0.22	0.04	0.22	0.32
2015	0.12	0.11	0.12	0.2	-0.11	-0.01	0.22
Pearson Overall	0	0.63	0.253694	0.711635	0.661822	0.571998	-0.31436
PearsonPrelisting	0	0.33	-0.27693	0.656764	0.996915	0.996915	1
Pearson Post-	0	-	0.993221	0.899162	0.976624	0.895344	-0.40612
listing							

**APPENDIX IV: Regression Model** 

	Event St	udy Regress	ion Model	for Listing Eve	ent Regressi	on (Kenya Re	as Example)	
T	Date	Alpha	Beta	STEYX	Actual Return	Estimated Return	Abnormal Return	t-values
-5	2010	0.038	0.58	0.031829	0.17	0.15	0.01	0.45
-4	201	1			0.10	0.15	-0.05	-1.66
-3	2012	2			0.19	0.18	0.01	0.45
-2	2013	3			0.17	0.17	0.00	-0.11
-1	2014	1			0.18	0.14	0.04	1.20
0	2014	1			0.18	0.11	0.07	2.28
1	201:	5			0.11	0.11	0.00	-0.04
2		-			-	-	-	-
3		-			-	-	-	-
4		-			-	-	-	-
5		-			-	-	-	-
						AAR	-0.01	

Key

T (Period of the event in years)

Date (Actual Date of the Event)

Alpha (α)Excel formula [=INTERCEPT (known y's, known x's)]

Beta ( $\beta$ )Excelformula[=SLOPE (known y's, known x's)]

STEYX Standard Error of Y Excel formula [=STEYX (known y's, known x's)]

Actual return Calculation(Obtained from primary Data)

Expected Return Calculation  $[=\alpha+\beta(STEYX)]$ 

Abnormal Returns CalculationR<sub>it</sub>(Actual Returns-Estimated Returns)

t-values calculation (Abnormal Return/STEYX)

# **APPENDIX V: List of All Insurance Companies in Kenya**

General Insurance	Life Insurance
AAR Insurance Kenya	APA Life Assurance Company
African Merchant Assurance	Barclays Life Assurance
AIG Insurance Company	British American Insurance
Allianz Insurance Company	Cannon Assurance Company
APA Insurance Company	Capex Life Assurance Company
British American Insurance	CIC Life Assurance Company
Cannon Assurance Company	Corporate Insurance Company
CIC General Insurance Company	First Assurance Company
Corporate Insurance Company	GA Life Assurance Limited
Directline Assurance Company	Geminia Insurance Company
Fidelity Shield Insurance	ICEA Lion Life Assurance Company
First Assurance Company	Jubilee Insurance Company
GA Insurance Company	Kenindia Assurance Company
Gateway Insurance Company	Kenya Orient Life Assurance
Geminia Insurance Company	Liberty Life Assurance Kenya
Heritage Insurance Company	Madison Insurance Company
ICEA Lion General Insurance	Metropolitan Life Assurance
Intra-Africa Assurance	Old Mutual Assurance Company
Invesco Assurance Company	Pan Africa Insurance Company
Jubilee Insurance Company	Pioneer Assurance Company
Kenindia Assurance Company	Prudential Life Assurance Kenya
Kenya Orient Insurance	Saham Insurance Company
Madison Insurance Company	Takaful Insurance Of Africa
Mayfair Insurance Company	The Kenyan Alliance Insurance
Occidental Insurance Company	The Monarch Insurance Company
Pacis Insurance Company	UAP Life Assurance Company
Phoenix Of East Africa	
Resolution Health Insurance	
Saham Assurance	
Takaful Insurance Of Africa	
Tausi Assurance Company	
The Kenyan Alliance Insurance	
The Monarch Insurance	
Trident Insurance Company	
UAP Insurance Company	
Xplico Insurance Company	